



**ISLIP
RESOURCE
RECOVERY
AGENCY**

**Blydenburgh Road Landfill Complex
Town of Islip, New York**

**Post Closure Groundwater
Monitoring Program**

2017 Annual Report

January 2018

Prepared by:



**D&B ENGINEERS
AND
ARCHITECTS, P.C.**



**D&B ENGINEERS
AND
ARCHITECTS, P.C.**

330 Crossways Park Drive, Woodbury, New York 11797

516-364-9890 • 718-460-3634 • Fax: 516-364-9045 • www.db-eng.com

Board of Directors

Steven A. Fangmann, P.E., BCEE
President & Chairman
Robert L. Raab, P.E., BCEE, CCM
Senior Vice President

Vice Presidents

Rob J. DeGiorgio, P.E., CPESC
Senior Vice President
Stephen M. Dudar, P.E.
Senior Vice President
Dennis F. Koehler, P.E.
Senior Vice President
Joseph H. Marturano
Senior Vice President
William D. Merklin, P.E.
Senior Vice President
John Schreck, P.E.
Senior Vice President
Brian M. Veith, P.E.
Senior Vice President
Richard M. Walka
Senior Vice President
Dr. Nicholas W. Bodouva
Senior Vice President
Garrett M. Byrnes, P.E.
Vice President
Matthew R. DeVinney, P.E.
Vice President
Frank DeVita
Vice President
Thomas P. Fox, P.G.
Vice President
Christopher Koegel, P.E., CCM
Vice President
Olga Mubarak
Vice President
Michael Neuberger, P.E.
Vice President
Theodore S. Pytlar, Jr.
Vice President
Philip R. Sachs, P.E.
Vice President
Charles J. Wachsmuth, P.E.
Vice President

Dir. of Architecture

Michael P. Sciarillo, AIA, NCARB

Senior Associates

Roger L. Cocchi, P.E.
Joseph A. Fioraliso, P.E.
Michael R. Hofgren
Michele Mastrangelo
Jamil Miranda, P.E.
Adam Rernick, P.E.
Adriana S. Restrepo, P.E.
Daniel Shabat, P.E.

Associates

Jeffrey G. Butler, P.E., BCEE
Meredith A. Byers
Anthony M. Caniano, P.G.
Rudolph F. Cannavale
Michael Carroll, P.E., CEM
Kevin J. Donlevy, P.E.
Lisa Lautato
Robbin A. Petrella
Swaroop C. Puchalapalli, P.E.
Edward J. Reilly
Michael G. Savarese, P.E.
Thomas Schaefer, P.E.
Alexis Schlessingerman, P.E., CCM
Stephen E. Tauss, P.G.
Frank Visingardi, Jr., P.E.

January 15, 2018

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

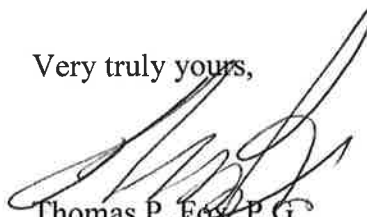
Re: Blydenburgh Road Landfill Complex
Post-Closure Groundwater Monitoring Program
2017 Annual Report
D&B No. 3763-09

Dear Mr. Varrichio:

Enclosed please find six copies of the final 2017 Annual 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/KSR/nc
Enclosures
♦3763\TPF18L\TR-01

**POST CLOSURE GROUNDWATER MONITORING PROGRAM
2017 ANNUAL REPORT**

**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.**

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

JANUARY 2018

**BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
2017 ANNUAL REPORT**

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
1.0	INTRODUCTION.....	1-1
2.0	SAMPLING LOCATIONS.....	2-1
3.0	SAMPLING PROCEDURES AND ANALYSES	3-1
3.1	Groundwater Level Measurement Procedures.....	3-1
3.2	Sampling Procedures	3-2
3.3	Organic Vapor and Combustible Gas Monitoring	3-4
3.4	Sample Analyses.....	3-4
4.0	ANALYTICAL RESULTS	4-1
4.1	Field Parameters.....	4-1
4.2	Monitoring Wells.....	4-1
	4.2.1 Volatile Organic Compounds	4-3
	4.2.2 Inorganic Parameters	4-8
	4.2.3 Leachate Indicators	4-10
4.3	Extraction Wells.....	4-11
	4.3.1 Volatile Organic Compounds	4-11
	4.3.2 Inorganic Parameters	4-14
	4.3.3 Leachate Indicators	4-15
4.4	Organic Vapor and Combustible Gas Monitoring	4-15
5.0	DATA VALIDATION	5-1
6.0	GROUNDWATER LEVEL MEASUREMENTS AND FLOW DIRECTION.....	6-1
6.1	Water Table Contours	6-1
6.2	Potentiometric Surface Contours	6-2
6.3	Recharge Well Water Levels	6-2

TABLE OF CONTENTS (continued)

7.0	FINDINGS AND RECOMMENDATIONS	7-1
7.1	Findings.....	7-1
7.2	Recommendations.....	7-3

List of Appendices

Summary of Final Field Parameter Results and Field Data.....	A
Monitoring Well Sample Results – Volatile Organic Compounds.....	B-1
Monitoring Well Sample Results – Inorganic Parameters.....	B-2
Monitoring Well Sample Results – Leachate Indicators	B-3
Historical Trend Graphs for Monitoring Wells - Total Volatile Organic Compounds	C-1
Historical Trend Graphs for Monitoring Wells – Inorganic Parameters	C-2
Historical Trend Graphs for Monitoring Wells – Leachate Indicators	C-3
Extraction Well Sample Results -- Volatile Organic Compounds.....	D-1
Extraction Well Sample Results – Inorganic Parameters	D-2
Extraction Well Sample Results – Leachate Indicators.....	D-3
Historical Trend Graphs for Extraction Wells – Total Volatile Organic Compounds	E-1
Historical Trend Graphs for Extraction Wells – Inorganic Parameters.....	E-2
Historical Trend Graphs for Extraction Wells – Leachate Indicators.....	E-3
Data Validation Forms.....	F
Monitoring Well Groundwater Elevation Measurements.....	G
Water Table Contour and Potentiometric Surface Contour Maps (-83 to -167 feet msl)	H
Historical Recharge Well Water Level Elevation Measurements	I

TABLE OF CONTENTS (continued)

List of Figures

1-1	Location Map	1-2
2-1	Monitoring Well and Extraction Well Locations.....	2-2

List of Tables

2-1	Summary of Monitoring Well Construction Details.....	2-3
2-2	Summary of Extraction Well Construction Details	2-5
2-3	Summary of Recharge Well Construction Details.....	2-6
4-1	Designations of Hydrogeologic Zones for Monitoring Wells and Extraction Wells.....	4-2
4-2	Comparison of Monitoring Well Sample Results - Total Volatile Organic Compounds.....	4-4
4-3	Summary of Inorganic Parameter Exceedances in Monitoring Wells.....	4-9
4-4	Summary of Leachate Indicator Exceedances in Monitoring Wells	4-12
4-5	Comparison of Extraction Well Sample Results - Total Volatile Organic Compounds.....	4-13

1.0 INTRODUCTION

This Annual Report presents the analytical results obtained in support of the Post Closure Groundwater Monitoring Program conducted on behalf of the Islip Resource Recovery Agency (IRRA) during the 2017 semiannual sampling events for the Blydenburgh Road Landfill Complex. The Landfill Complex is located in Hauppauge, Town of Islip, New York (see **Figure 1-1**). The semiannual sampling events for 2017 were conducted in February (first quarter) and August (third quarter).

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. Consistent with the Record of Decision (ROD) issued by the U.S. Environmental Protection Agency (USEPA) – Region 2 for the Blydenburgh Road Landfill Complex, the groundwater remediation program was designed to reduce total volatile organic compounds (TVOCs) in groundwater to 50 micrograms per liter (ug/l).

The monitoring program was conducted in conformance with the Sampling and Analysis Plan (SAP) and the Corrective Measures Work Plan (CMWP) approved by the New York State Department of Environmental Conservation (NYSDEC) and the USEPA – Region 2.

This Post Closure Groundwater Monitoring Program Annual Report includes a discussion of the sample locations, sampling procedures, laboratory analyses, field and analytical results, data validation, groundwater level measurements and flow direction. The report also includes a comparison of the analytical results to applicable New York State groundwater quality standards and guidelines, the results obtained during previous sampling events (if applicable), and the remediation criterion of 50 ug/l for TVOCs prescribed in the ROD issued by the USEPA-Region 2. In addition, the report includes recommendations for future monitoring and operation of the groundwater remediation system.



2.0 SAMPLING LOCATIONS

For the first quarter sampling event (February 2017), 25 groundwater monitoring wells and six extraction wells were sampled. 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. However, GM-1D was out of service during the First Quarter 2017 sampling event, and therefore a sample was not obtained.

For the third quarter sampling event (August 2017), 36 groundwater monitoring wells, six extraction wells and temporary extraction well (GM-1D) were sampled.

Figure 2-1 illustrates the groundwater monitoring well and extraction well locations. Each monitoring well site shown on **Figure 2-1** includes 1 to 4 individual monitoring wells with screened intervals at varying depths. Well construction information for the monitoring wells sampled as part of this program, as well as the extraction wells, is summarized in **Tables 2-1** and **2-2**. In addition, well construction information for the six recharge wells used as part of the water level monitoring network is summarized in **Table 2-3**. The locations of the recharge wells are also illustrated on **Figure 2-1**.

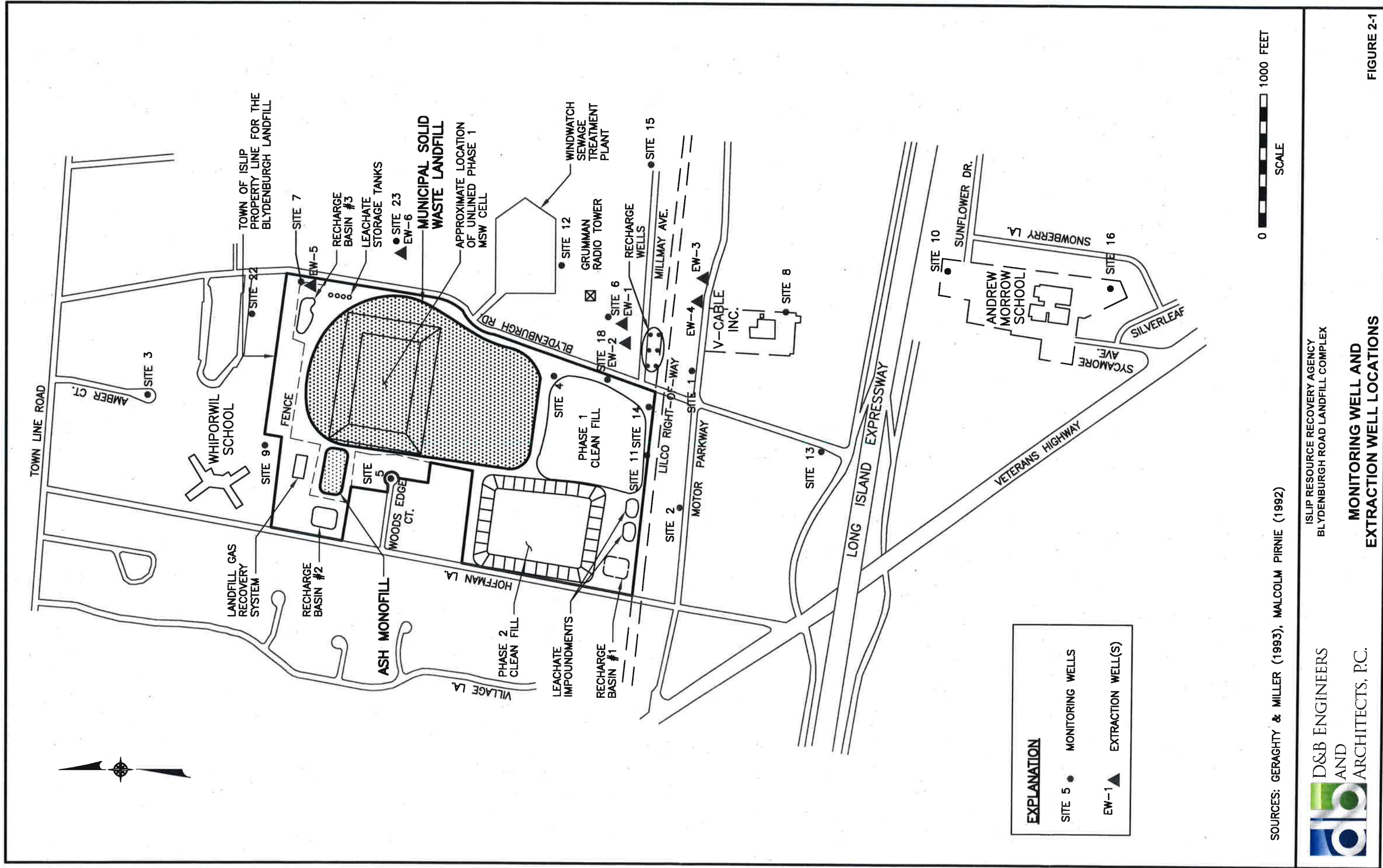


Table 2-1

**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				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)
					(feet below land surface)	(elevation relative to mean sea level)	(feet below land surface)	(elevation relative to mean sea level)					
GM-1S	8/21/86	4	SS	135	125-135	29-19	123-138	29-19	123-138	121-123(a)	110-121	-1.33	151.17
GM-1I	8/14/86	4	SS	285 ⁽¹⁾	280-290	(-128)(-138)	270-298	(-128)(-138)	270-298	268-270(a)	0-268	-1.11	151.19
GM-1D ⁽⁴⁾	8/14/86	4	SS	399	389-399	(-237)(-247)	387-402	(-237)(-247)	387-402	385-387(a)	300-385	-1.01	151.19
GM-2S	9/25/86	4	SS	149	139-149	22-12	136-152	22-12	136-152	134-136(a)	74-134	-1.32	160.08
GM-2I	9/17/86	4	SS	298	290-298	(-129)(-136)	285-300	(-129)(-136)	285-300	283-285(a)	100-283	-0.65	160.65
GM-2D	9/17/86	4	SS	398 ⁽²⁾	400-409	(-239)(-248)	395-409	(-239)(-248)	395-409	393-395(a)	302-393	-0.59	160.71
4G-1	4/21/89	4	PVC	164	154-164	12-2	140-170	12-2	140-170	135-140	0-135	1.27	168.47
4G-2	1/23/89	4	PVC	211	201-211	(-35) - (-45)	194-216	(-35) - (-45)	194-216	188-194 (a)	0-188	-0.31	170.03
4M-1	5/9/89	4	PVC	325	315-325	(-149)(-159)	305-336(b)	(-149)(-159)	305-336(b)	None Used	0-290	1.25	168.95
4M-2	8/9/89	4	SS	486	476-486	(-310)(-320)	470-517	(-310)(-320)	470-517	463-470	0-463	2.23	169.53
6G-1	6/5/89	4	SS	147	135-145	45-32	128-145	45-32	128-145	123-128	0-123	2.57	180.17
6G-2	5/16/89	4	PVC	230	220-230	(-43)(-53)	212-241	(-43)(-53)	212-241	205-212	0-205	2.35	178.65
6G-3	3/28/90	4	SS	315	305-315	(-128)(-138)	303-318	(-128)(-138)	303-318	302-303(c)	0-300	2.43	179.83
6M-1	4/27/89	4	PVC	545	535-545	(-358)(-368)	525-548	(-358)(-368)	525-548	523-525	0-523	1.40	178.40
7M-1	6/26/89	4	SS	214	204-214	(-142)(-152)	195-230	(-142)(-152)	195-230	190-195	0-190	-0.34	67.56
8G-1	8/11/89	4	SS	114	104-114	30-20	99-115	30-20	99-115	92-99	0-92	-0.23	133.97
8M-1	8/25/89	4	SS	270	260-270	(-124)(-134)	260-288	(-124)(-134)	260-288	245-250	0-245	-0.59	135.21
8M-2	7/5/89	4	PVC	383.5	373.5-383.5	(-238)(-248)	366.5-383.5	(-238)(-248)	366.5-383.5	363.5-366.5	0-363.5	-0.19	135.11
9G-1	8/2/89	4	SS	68	58-68	33-23	52.6-68	33-23	52.6-68	47-52.5	0-47	-0.47	90.83
10G-1	9/6/89	4	SS	69	59-69	30-20	54-69	30-20	54-69	51-54	0-51	-0.08	88.52
10M-1	9/6/89	4	SS	256	246-256	(-157)(-167)	241-256	(-157)(-167)	241-256	236-241	0-236	-0.16	88.84
11G-1	10/5/89	4	SS	145	135-145	32-22	130-160	32-22	130-160	125-130	0-125	0.90	168.90
11G-2	---	4	SS	220.5	---	(-31)(-51)	---	(-31)(-51)	---	---	---	2.51	169.31
11M-1	9/26/89	4	SS	320	310-320	(-144)(-154)	305-327	(-144)(-154)	305-327	300-305	0-300	1.02	168.32
12M-1	10/30/89	4	SS	338	328-338	(-153)(-163)	323-362	(-153)(-163)	323-362	318-323	0-318	2.86	177.66

Table 2-1 (continued)

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			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)
					(feet below land surface)	(elevation relative to mean sea level)	(feet below land surface)					
13G-1	12/1/89	4	SS	93	83-93	27-17	72-135	59-62	0-50	0-50	-0.47	110.49 ⁽³⁾
13M-1	12/13/89	4	SS	265	255-265	(-145)-(-155)	245-289	240-245	0-240	0-240	-0.50	109.92 ⁽³⁾
14G-1A	--	4	SS	220	--	(-38)-(-58)	--	--	--	--	-0.17	161.73
14G-2	2/2/90	4	SS	264	244-264	(-83)-(-103)	239-272	234-239	0-234	0-234	-0.14	162.36
14M-1	1/18/90	4	SS	355	335-355	(-174)-(-194)	330-395	325-330	0-325	0-325	-0.12	161.98
15G-1	3/1/90	4	SS	160	150-160	33-23	145-180	140-145	0-140	0-140	-0.15	183.05
16G-1	2/14/90	4	SS	57	47-57	30-20	42-57	37-42	0-37	0-37	-0.48	76.92
16M-1	3/24/90	4	SS	240	230-240	(-153)-(-163)	225-250	222-225	0-222	0-222	-0.30	76.90
18G-1	--	4	SS	157.5	--	31-11	--	--	--	--	2.32	168.62
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	0-209	-0.26	61.04
23M-1	6/1/92	4	SS	240.5	230.5-240.5	(-154)-(-164)	225.5-240.5	223.5-225.5	0-223.5	0-223.5	-0.19	76.81
PVC Polyvinyl chloride				(a) Bentonite pellets used								
SS Stainless steel				(b) Estimated								
-- Data not available				(c) Bentonite pellets used from 300 feet to 302 feet.								

⁽¹⁾ Well construction log GM-1I indicated a total depth of 290 feet. Total depth was measured in the field at 285 feet.

⁽²⁾ Well construction log GM-2D indicated a total depth of 409 feet. Total depth was measured in the field at 398 feet.

⁽³⁾ Wells 13G-1 and 13M-1 reference elevation adjusted to reflect well pipe extension due to new sidewalk. (October 2008).

⁽⁴⁾ 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 EXTRACTION WELL CONSTRUCTION DETAILS**

Well Designation	Date Completed	Aquifer (contact)	Well Diameter (inches)	Well Capacity (gallons per minute)	Screen Setting			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)
					Screen Type	Screen Diameter (inches)	Total Depth (feet below land surface)				
EW-1	July 1996	M-UG	6	55	SS	6	225	60	165-225	-57	167.91
EW-2	July 1996	M-UG	6	45	SS	6	223	60	163-223	-53	170.42
EW-3	July 1996	D-UG/SM	8	90	SS	8	312	40	272-312	-129	182.47
EW-4	July 1996	D-UG/SM	6	55	SS	6	305	45	260-305	-138	167.48
EW-5	July 1996	D-UG/SM	6	65	SS	6	213	50	163-213	-141	72.40
EW-6	July 1996	D-UG/SM	6	40	SS	6	215	40	175-215	-137	77.70

SS Stainless steel
M-UG Mid-Upper Glacial
D-UG/SM Deep-Upper Glacial/Shallow Magothy

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

Table 2-3

**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 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)
				Screen Type	Screen Diameter (inches)	Total Depth (feet below land surface)				
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). Both dedicated and disposable sampling equipment was used, where appropriate, 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

Prior to collecting groundwater samples, 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 low flow 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 reduced 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

Prior to collecting groundwater samples, the monitoring wells were purged to remove the standing water in the well. Well purging was accomplished by first measuring the static water level in the well and calculating the standing water volume. A decontaminated submersible pump was used to purge the water from the well.

During the purging process, groundwater was monitored and recorded for the following field parameters: pH, temperature, specific conductance, oxidation reduction potential (ORP), dissolved oxygen, and turbidity. When the values of the field parameters stabilized within 10% based on the last two readings, the turbidity of the groundwater was less than 50 Nephelometric Turbidity Units (NTUs) and at least three well volumes had been removed, well purging was considered complete.

Field parameter values measured in the monitoring wells, extraction wells and temporary extraction well GM-1D at the time of sample collection, as well as additional field data collected for the first quarter and third quarter sampling events in 2017 are presented in **Appendix A**.

Decontamination of the submersible pump used for well purging was performed in accordance with the procedures described in the SAP.

In accordance with the SAP, groundwater samples were collected using new, dedicated, disposable polyethylene bailers and polypropylene rope. Samples for Volatile Organic Compound (VOC) analysis were collected first, followed by inorganic parameters and leachate indicators. Each sample was stored in an ice-filled cooler with the chain of custody forms and delivered to the analytical laboratory.

Groundwater samples collected from the six extraction wells (EW-1 through EW-6), as well as temporary extraction well GM-1D, were collected from the sample port on each well. It should be noted, extraction wells EW-2 and EW-6 were shut down on May 15, 2006, at the request of the USEPA - Region 2. Prior to sampling, EW-2 and EW-6 were each purged using the dedicated pump installed in each of these extraction wells. After purging and sampling was completed, wells EW-2 and EW-6 were again shut down by IRRA personnel.

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

Analytical results for the samples collected from the monitoring wells, extraction wells and temporary extraction well GM-1D are provided in **Appendix B-1** through **B-3** and **Appendix D-1** through **D-3** and discussed in **Section 4.0**.

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 as part of the Post Closure Groundwater Monitoring Program. 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 results represent headspace measurements collected during the semiannual synoptic groundwater level measurements and are provided in **Section 4.0**.

3.4 Sample Analyses

Groundwater samples collected from monitoring wells, extraction wells and temporary extraction well (GM-1D) during the 2017 sampling events were analyzed for New York Codes and Regulations (NYCRR) Part 360 Baseline Parameters (VOCs, inorganic parameters and leachate indicators). At the request of the NYSDEC, commencing with the First Quarter 2015 sampling event, Freon 21 and Freon 22 were added for analysis to the Part 360 VOC list.

During the 2017 sampling events, other parameters (pH, temperature, specific conductance, ORP, dissolved oxygen and turbidity) were measured in the field for groundwater samples collected from each of the monitoring wells, extraction wells and temporary extraction well (GM-1D).

4.0 ANALYTICAL RESULTS

The 2017 semiannual analytical results and historical Total VOC (TVOC) trends from the Post Closure Groundwater Monitoring period from July 1997 to the present, where applicable, are discussed below.

4.1 Field Parameters

As described in **Section 3.0**, field parameters monitored during purging of the monitoring wells included pH, temperature, specific conductance, ORP, dissolved oxygen and turbidity. Final field parameter values and additional field data measured in the monitoring wells, extraction wells and temporary extraction well (GM-1D); during the 2017 sampling events are contained in **Appendix A**.

4.2 Monitoring Wells

To evaluate groundwater quality, the Baseline Groundwater Remediation Monitoring Program Report (Dvirka and Bartilucci, August 1996) defined three hydrogeologic zones (refer to **Table 4-1**). Zone 1 is defined as within approximately 40 feet of the water table (2 to 45 feet relative to mean sea level [msl]), Zone 2 is the bottom of the Deep Upper Glacial/Shallow Magothy aquifer contact (-124 to -167 feet msl) and Zone 3 is deeper in the Magothy aquifer (-237 to -368 feet msl).

Seven of the monitoring wells (4G-2, 6G-2, 11G-2, 14G-1A, 14G-2, 14M-1 and 18G-2) sampled do not fall within any of the three zones described above. Five of these wells (4G-2, 6G-2, 11G-2, 14G-1A and 18G-2) are screened in the Upper Glacial aquifer just above the Smithtown Clay Unit, which is at a depth of approximately -35 to -75 feet msl. Although these well screens do not straddle the water table, the results of the analyses for these wells are included in the discussion for the shallow Upper Glacial aquifer (Zone 1). It should be noted; well 14G-2 is screened just below the Smithtown Clay Unit and is included in the discussion for the Deep Upper Glacial/Shallow Magothy wells (Zone 2). Well 14M-1 is screened below Zone 2 and is included in the discussion for Zone 2.

Table 4-1

**BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
DESIGNATIONS OF HYDROGEOLOGIC ZONES
FOR MONITORING WELLS AND EXTRACTION WELLS**

Shallow Upper Glacial Wells - Zone 1 (screened near or at the water table from 2 to 45 feet msl)		
GM-1S	8G-1	13G-1
GM-2S	9G-1	15G-1
4G-1	10G-1	16G-1
6G-1	11G-1	18G-1
Mid Upper Glacial Wells (above Smithtown Clay) (- 35 to - 75 feet msl)		
4G-2	14G-1A	EW-2
6G-2	18G-2*	
11G-2	EW-1	
Deep Upper Glacial/Shallow Magothy Wells - Zone 2 (- 124 to - 167 feet msl)		
GM-1I	11M-1	23M-1
GM-2I	12M-1	EW-3
4M-1	13M-1	EW-4
6G-3	14G-2**	EW-5
7M-1	14M-1***	EW-6
8M-1	16M-1	
10M-1	22M-1	
Deep Magothy Well - Zone 3 (- 237 to - 368 feet msl)		
GM-1D****	4M-2	8M-2
GM-2D	6M-1	

Msl - mean sea level.

*Well 18G-2 screened - 9 to - 29 feet msl.

**Well 14G-2 screened - 83 to - 103 feet msl.

***Well 14M-1 screened - 174 to - 194 feet msl.

**** Well GM-1D was converted into a temporary extraction well in October 2013.

Source: Baseline Groundwater Remediation Monitoring Program Report, Dvirka and Bartilucci Consulting Engineers, August 1996.

4.2.1 Volatile Organic Compounds

The following discussion presents the 2017 sample results, as well as historical trends for TVOCs in each of the hydrogeologic zones (refer to **Table 4-2**). It should be noted, for the purpose of discussion, TVOC results for GM-1D (temporary extraction well) are included and discussed as part of the Deep Magothy Aquifer (Zone 3). The results of the individual VOC analyses for the monitoring wells, as well as temporary extraction well (GM-1D) are presented in **Appendix B-1**. Graphs illustrating historical TVOC concentrations for the monitoring wells are presented in **Appendix C-1**.

Shallow Upper Glacial Aquifer (Zone 1)

A comparison of the semiannual sample results for 2017 indicate that none of the twelve wells screened in the Shallow Upper Glacial Aquifer detected TVOC concentrations in exceedance of the remediation criteria of 50 ug/l. The shallow wells exhibited TVOC concentrations during 2017 ranging from nondetect to 5.9 ug/l. For shallow wells sampled on an semiannual basis during 2017, TVOC concentrations for five wells (6G-1, 8G-1, 11G-1, 13G-1 and 18G-1) remained consistent (variation of 10 ug/l or less). Seven shallow wells (GM-1S, GM-2S, 4G-1, 9G-1, 10G-1, 15G-1 and 16G-1) were sampled on an annual basis (third quarter 2017). For comparison purposes, TVOC concentrations for these seven wells are compared to the most recent sample results (third quarter 2106), for the respective well. TVOC concentrations in these seven wells remained consistent.

TVOC concentrations in wells screened in the Shallow Upper Glacial, with the exception of well 11G-1 remained consistent in comparison to historical results. Sample results are considered consistent when there is variability in concentration of 10 ug/l or less, with no apparent historical trend. In general, since February 2006, well 11G-1 exhibited a decreasing trend in TVOC concentrations.

Table 4-2

**BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
COMPARISON OF MONITORING WELL SAMPLE RESULTS
TOTAL VOLATILE ORGANIC COMPOUNDS**

Well No.	1st Quarter (February 2017)	3rd Quarter (August 2017)	2017 Comparison	Historical Trend
Zone 1 (Shallow Upper Glacial Wells)				
GM-1S	ND*	ND	Consistent*	Consistent
GM-2S	5*	2.5	Consistent*	Consistent
4G-1	1*	1	Consistent*	Consistent
6G-1	ND	ND	Consistent	Consistent
8G-1	ND	ND	Consistent	Consistent
9G-1	ND*	ND	Consistent*	Consistent
10G-1	ND*	ND	Consistent*	Consistent
11G-1	5.9	2.9	Consistent	Decrease since February 2006
13G-1	ND	ND	Consistent	Consistent
15G-1	ND*	ND	Consistent*	Consistent
16G-1	ND*	ND	Consistent*	Consistent
18G-1	2.3	1.5	Consistent	Consistent
Zone 1 (Mid Upper Glacial Wells)				
4G-2	ND	ND	Consistent	Consistent since February 2002
6G-2	ND	ND	Consistent	Consistent since February 2007
11G-2	57.5	24	Decrease	Increase since February 2008
14G-1A	ND	ND	Consistent	Consistent
18G-2	3.5	2	Consistent	Consistent since August 2004
Zone 2 (Deep Upper Glacial/Shallow Magothy Wells)				
GM-1I	ND	ND	Consistent	Consistent
GM-2I	14*	7.8	Consistent*	Slight Increase
4M-1	27.2	5.9	Decrease	Decrease since February 2004
6G-3	8	4.4	Consistent	Decrease
7M-1	3.1	4.3	Consistent	Decrease
8M-1	2	ND	Consistent	Consistent since May 2001
10M-1	12.5	1.6	Decrease	Slight Increase

Table 4-2 (continued)

**BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
COMPARISON OF MONITORING WELL SAMPLE RESULTS
TOTAL VOLATILE ORGANIC COMPOUNDS**

Well No.	1st Quarter (February 2017)	3rd Quarter (August 2017)	2017 Comparison	Historical Trend
11M-1	22*	4.9	Decrease*	Consistent
12M-1	22.4	2.6	Decrease	Decrease
13M-1	40.1	ND	Decrease	Increase
14G-2	ND	ND	Consistent	Consistent since May 2001
14M-1	43.3	24	Decrease	Decrease
16M-1	4.4	3.7	Consistent	Decrease since 2004
22M-1	ND	ND	Consistent	Consistent since November 2005
23M-1	1.3	ND	Consistent	Consistent since February 2007
Zone 3 (Deep Magothy Well)				
GM-1D**	31***	54.5	Increase	Increase
GM-2D	ND*	ND	Consistent*	Consistent
4M-2	8	3.1	Consistent	Consistent
6M-1	ND*	ND	Consistent*	Consistent
8M-2	ND	ND	Consistent	Consistent

Notes:

All results reported in ug/l.

ND - Not detected.

*Total VOC results for wells GM-1S, GM-2S, GM-2I, GM-2D, 4G-1, 6M-1, 9G-1, 10G-1, 11M-1, 15G-1 and 16G-1 are compared to third quarter 2016 sample results.

** GM-1D was converted into a temporary extraction well in October 2013.

*** GM-1D out of service for repair during the First Quarter 2017 sampling event. GM-1D sampled in June and TVOC results used in comparison to the August 2017 results.

Historical VOC graphs are presented in Appendix C-1.

Mid Upper Glacial Aquifer (Zone 1)

A comparison of the semiannual sample results for 2017 indicate that one well (11G-2), out of the five wells screened in the Mid Upper Glacial Aquifer detected TVOC concentrations in exceedance of the remediation criterion of 50 ug/l. TVOC concentrations in well 11G-2 during the first and the third quarters of 2017, were 57.5 ug/l and 24 ug/l, respectively. TVOC concentrations in the remaining four wells (4G-2, 6G-2, 14G-1A and 18G-2) ranged from nondetect to 3.5 ug/l.

TVOC concentrations in four wells (4G-2, 6G-2, 14G-1A and 18G-2) remained consistent during 2017. In general, TVOC concentrations remained consistent in comparison to historical results in wells 4G-2 (since February 2002), 6G-2 (since February 2007), 14G-1A (since 1997) and 18G-2 (since August 2004). In general, since February 2008 well 11G-2 showed an increasing trend in TVOCs in comparison to historical results.

Deep Upper Glacial/Shallow Magothy (Zone 2)

A comparison of the semiannual sample results for 2017 indicate that none of the fifteen wells screened in the Deep Upper Glacial/Shallow Magothy detected TVOC concentrations in exceedance of the remediation criteria of 50 ug/l. TVOC concentrations in the wells screened in Zone 2, ranged from nondetect in wells GM-1I, 8M-1, 13M-1, 14G-2, 22M-1 and 23M-1 to a maximum concentration of 43.3 ug/l in well 14M-1. TVOCs during the first quarter 2017 ranged between nondetect to 43.3 ug/l with the maximum concentration detected at well 14M-1. TVOCs during the third quarter 2017 ranged between nondetect to 24 ug/l with the maximum concentration detected at well 14M-1.

As previously mentioned, at the request of the NYSDEC, the analysis of Freon 21 and Freon 22 was added to the Part 360 Baseline VOC list. As indicated on the data tables (**Appendix B-1**), three wells (11G-2, 13M-1 and 14M-1) exceeded the groundwater standard (5 ug/l) for Freon 21. The maximum concentration for Freon 21 was reported in monitoring well 14M-1 at 9.2 ug/l. There is no groundwater standard for Freon 22.

TVOC concentrations in the Deep Upper Glacial/Shallow Magothy wells with the exception of 4M-1, 10M-1, 12M-1 and 14M-1, remained consistent during 2017. Monitoring wells 4M-1, 10M-1, 12M-1, 13M-1 and 14M-1 exhibited a decrease in TVOCs greater than 10 ug/l. For well GM-2I which was sampled on an annual basis during the August 2017 sampling event, TVOCs have remained consistent in comparison to the third quarter 2016 sample result. For well 11M-1 which was sampled on an annual basis during the August 2017 sampling event, TVOCs exhibited a decrease in TVOCs greater than 10 ug/l in comparison to the third quarter 2016 sample result.

With regard to historical trends, TVOC concentrations in wells GM-1I, 8M-1 (since May 2001), 11M-1, 14G-2 (since May 2001), 22M-1 (since November 2005) and 23M-1 (since February 2007) remained consistent in comparison to historical results. TVOC concentrations in wells 4M-1 (since 2004), 6G-3, 7M-1, 12M-1, 14M-1 and 16M-1 (since 2004), exhibited a slight decreasing to decreasing trend in comparison to historical results. TVOC concentrations in wells GM-2I, 10M-1 and 13M-1 showed a slight increasing to increasing trend in comparison to historical results.

Deep Magothy Aquifer (Zone 3)

TVOC concentrations in deep Magothy wells (GM-2D, 6M-1 and 8M-2), were nondetect during the 2017 sampling period. TVOC concentrations in well 4M-2 during the first and third quarters of 2017 were 8 ug/l and 3.1 ug/l, respectively. For the first quarter sampling event of 2017, temporary extraction well (GM-1D) was not in service, therefore a sample was not obtained. During the third quarter sampling event of 2017, TVOC result in temporary extraction well (GM-1D) was reported at 54.5 ug/l.

In addition, as stipulated in the Corrective Measures Work Plan (CMWP), temporary extraction well GM-1D is to be sampled every two months during the calendar year. Temporary extraction well GM-1D was sampled during the months of June, August, October and December of 2017. TVOCs for GM-1D during these months ranged between 31.1 ug/l to 54.5 ug/l. As

mentioned previously, GM-1D was not in service (February of 2017) and therefore, a groundwater sample was not obtained. In addition, the groundwater sample collected for the April 2017 sampling event from GM-1D was deemed unusable due to pump issues.

As indicated on the data table for GM-1D (**Appendix B-1**), both Freon 21 and Freon 22 were detected in the bi-monthly samples at maximum concentrations of 11.9 ug/l and 8 ug/l, respectively. For each bi-monthly sampling event, Freon 21 exceeded the groundwater standard of 5 ug/l. There is no groundwater standard for Freon 22.

In comparison to historical results, TVOC concentrations in temporary extraction well GM-1D exhibits an increasing trend. TVOC concentrations in wells 4M-2 and 8M-2 remained consistent during 2017, as well as in comparison to historical results. TVOC concentrations in wells GM-2D and 6M-1, which are sampled on an annual basis (August 2017), remained consistent both in comparison to the third quarter 2016 sampling results and historical results.

4.2.2 Inorganic Parameters

Tabulated analytical results for inorganic parameters for the monitoring wells, as well as temporary extraction well (GM-1D) are provided in **Appendix B-2**. Graphs illustrating historical inorganic parameters from selected monitoring wells, which exceeded NYSDEC Class GA groundwater standards or guidance values are presented in **Appendix C-2**. Discussion of the individual inorganic parameters that were detected at concentrations exceeding NYSDEC Class GA groundwater standards and guidance values in 2017 are discussed below. The highest concentration detected for the inorganic parameters with exceedances were selected and presented in **Table 4-3**.

- Arsenic was detected above the groundwater standard (25 ug/l) in well 12M-1 (57.7 ug/l).
- Boron was detected above the groundwater standard (1,000 ug/l) in wells 4M-1 (1,750 ug/l), 11G-2 (1,760 ug/l) and 14M-1 (1,170 ug/l).

TABLE 4-3
BLYDENBURGH ROAD LANDFILL COMPLEX
SUMMARY OF INORGANIC PARAMETER EXCEEDANCES IN MONITORING WELLS
2017 ANNUAL REPORT

WELL ID	Inorganic Parameter	Arsenic	Boron	Cadmium	Iron	Lead	Manganese	Magnesium	Mercury	Nickel	Sodium	Total Chromium	Thallium
	Groundwater Standard/ Guidance Value	25	1,000	5	300	25	300	35,000	0.7	100	20,000	50	0.5
Shallow Upper Glacial Wells (screened near or at water table)													
GM-1S		---	---	---	1,090	---	---	---	---	---	48,400	---	---
GM-2S		---	---	---	861	---	---	---	---	---	---	---	---
4G-1		---	---	---	7,290	---	6,430	---	---	---	91,500	---	8.4
6G-1		---	---	---	17,400	---	1,130	---	---	146	53,400	2,130	---
8G-1		---	---	8.6	1,160	---	---	---	---	---	268,000	70.2	---
9G-1		---	---	---	2,680	---	---	---	---	---	---	---	---
10G-1		---	---	14.7	5,160	---	---	---	---	---	73,500	348	---
11G-1		---	---	---	885	---	2,620	---	---	110	236,000	---	---
13G-1		---	---	---	360	---	---	---	---	---	---	---	---
15G-1		---	---	---	415	---	---	---	---	---	---	---	---
16G-1		---	---	5.7	1,420	---	---	---	---	---	---	---	---
18G-1		---	---	---	360	---	11,300	---	---	---	109,000	---	14.8
Mid-Upper Glacial Wells (screened above Smithtown Clay (- 35 to - 75 feet msl)													
4G-2		---	---	---	2,490	---	7,040	---	---	---	92,900	---	6
6G-2		---	---	---	---	---	347	---	---	---	85,400	---	---
11G-2		---	1,760	---	842	---	3,200	---	---	205	418,000	---	---
14G-1A		---	---	---	1,640	---	---	---	---	---	56,300	---	---
18G-2*		---	---	---	---	---	5,610	---	---	---	88,900	---	6.2
Deep Upper Glacial/Shallow Magothy Wells (screened - 124 to - 167 feet msl)													
GM-1I		---	---	---	---	---	---	---	---	---	51,600	---	---
GM-2I		---	---	---	352	---	---	---	---	---	---	---	---
4M-1		---	1,750	---	1,590	---	2,000	55,600	---	172	427,000	---	---
6G-3		---	---	---	1,910	---	5,730	---	---	---	42,400	---	---
7M-1		---	---	---	---	---	---	---	---	---	---	---	---
8M-1		---	---	---	5,880	---	---	---	3.4	---	144,000	---	---
10M-1		---	---	5.5	2,600	---	---	---	---	---	---	---	---
11M-1		---	---	---	---	---	---	---	---	---	39,300	---	---
12M-1		57.7	---	---	6,300	---	6,680	42,200	---	---	67,400	---	---
13M-1		---	---	---	469	---	---	---	---	---	---	---	---
14G-2**		---	---	---	676	---	---	---	---	---	452,000	---	---
14M-1***		---	1,170	---	664	---	5,520	62,000	---	105	291,000	---	---
16M-1		---	---	---	---	---	---	---	---	---	41,100	---	---
22M-1		---	---	---	---	---	---	---	---	---	---	---	---
23M-1		---	---	11.7	---	---	---	---	---	---	27,900	---	---
Deep Magothy Wells (screened - 237 to - 368 feet msl)													
GM-1D		---	---	---	---	---	---	---	---	---	154,000	---	---
GM-2D		---	---	---	461	---	---	60,400	---	---	---	---	---
4M-2		---	---	---	1,490	---	---	35,600	---	---	169,000	---	---
6M-1		---	---	---	---	---	---	---	---	---	---	---	---
8M-2		---	---	10.2	2,040	65.5	---	---	---	---	22,100	---	---

Notes:
All values reported in micrograms per liter (ug/l)
GM-1D was converted into a temporary extraction well in October 2013
*: Well 18G-2 screened - 9 to - 29 feet msl.
**: Well 14G-2 screened - 83 to - 103 msl.
***: Well 14M-1 screened - 174 to - 194 feet msl.
---: No exceedances

Exceeds the groundwater standard/guidance value

- Cadmium was detected above the groundwater standard (5 ug/l) in wells 8G-1 (8.6 ug/l), 8M-2 (10.2 ug/l), 10G-1 (14.7 ug/l), 10M-1 (5.5 ug/l), 16G-1 (5.7 ug/l) and 22M-1 (11.7 ug/l).
- Lead was detected above the groundwater standard (25 ug/l) in monitoring well 8M-2 (65.5 ug/l).
- Iron was detected above the groundwater standard (300 ug/l) in the majority of monitoring wells (27 out of 36). Iron concentrations which exceeded the groundwater standard ranged from 352 ug/l in well GM-2I to 17,400 ug/l in well 6G-1.
- Manganese was detected above the groundwater standard (300 ug/l) in twelve monitoring wells (4G-1, 4G-2, 4M-1, 6G-1, 6G-2, 6G-3, 11G-1, 11G-2, 12M-1, 14M-1, 18G-1 and 18G-2). Manganese concentrations which exceeded the groundwater standard ranged from 347 ug/l in well 6G-2 to 11,300 ug/l in well 18G-1.
- Magnesium was detected above the groundwater guidance value (35,000 ug/l) in four monitoring wells (4M-1, 4M-2, 12M-1, and 14M-1), as well as in temporary extraction well (GM-1D). Magnesium concentrations which exceeded the guidance value ranged from 35,600 ug/l in well 4M-2 to 62,000 ug/l in well 14M-1.
- Mercury was detected above the groundwater standard (0.7 ug/l) in monitoring 8M-1 (3.4 ug/l).
- Nickel was detected above the groundwater standard (100 ug/l) in wells 4M-1 (172 ug/l), 6G-1 (146 ug/l), 11G-1 (110 ug/l), 11G-2 (205 ug/l) and 14M-1 (105 ug/l).
- Sodium was detected above the groundwater standard (20,000 ug/l) in the majority of monitoring wells (25 out of 36), as well as in temporary extraction well (GM-1D). Sodium concentrations which exceeded the groundwater standard ranged from 22,100 ug/l in well 8M-2 to 427,000 ug/l in well 4M-1.
- Thallium was detected above the groundwater guidance value (0.5 ug/l) in wells 4G-1 (8.4 ug/l), 4G-2 (6 ug/l), 18G-1 (14.8 ug/l) and 18G-2 (6.2 ug/l).
- Total chromium was detected above the groundwater standard (50 ug/l) in monitoring wells 6G-1 (2,130 ug/l), 8G-1 (70.2 ug/l) and 10G-1 (348 ug/l).

4.2.3 Leachate Indicators

Tabulated analytical results for leachate indicators for the monitoring wells, as well as temporary extraction well (GM-1D) are provided in **Appendix B-3**. Graphs illustrating historical leachate indicators from selected monitoring wells, which exceeded NYSDEC Class GA groundwater standards or guidance values are presented in **Appendix C-3**. Discussion of the

individual leachate indicators that were detected at concentrations exceeding NYSDEC Class GA groundwater standards and guidance values in 2017 are discussed below. The highest concentration detected for the leachate indicators with exceedances were selected and presented in **Table 4-4**.

- Ammonia nitrogen was detected above the groundwater standard (2 mg/l) in ten monitoring wells (4G-1, 4M-1, 4M-2, 6G-3, 8M-1, 11G-1, 11G-2, 14M-1, 18G-1 and 18G-2), as well as in temporary extraction well (GM-1D). Ammonia concentrations which exceeded the groundwater standard ranged from 4.5 mg/l in well 18G-2 to 157 mg/l in well 11G-2.
- Bromide was detected above the groundwater guidance value (2 mg/l) in wells 4M-1 (4.7 mg/l), 4M-2 (2.3 mg/l), 11G-2 (3.9 mg/l) and 14M-1 (3.3 mg/l).
- Chloride was detected above the groundwater standard (250 mg/l) in wells 4M-1 (451 mg/l), 4M-2 (286 mg/l), 6G-1 (581 ug/l), 11G-2 (437 mg/l) and 14M-1 (363 mg/l).
- Phenols were detected above the groundwater standard (0.001 mg/l) in eighteen wells (GM-1S, GM-1I, GM-2I, GM-2D, 4G-1, 4M-1, 4M-2, 6G-3, 8M-1, 8M-2, 10M-1, 11G-1, 12M-1, 13M-1, 14M-1, 14G-1A, 18G-1 and 23M-1). Phenols which exceeded the groundwater standard ranged from 0.0015 mg/l in 4M-2 to 0.0454 mg/l in 14G-1A.

4.3 Extraction Wells

4.3.1 Volatile Organic Compounds

Table 4-5 presents a comparison of the 2017 TVOC concentrations for the six extraction wells, as well as historical trends. The 2017 VOC results for the extraction wells are presented in **Appendix D-1**. Graphs illustrating historical TVOC concentrations for the extraction wells are presented in **Appendix E-1**.

TABLE 4-4
BLYDENBURGH ROAD LANDFILL COMPLEX
SUMMARY OF LEACHATE INDICATOR EXCEEDANCES IN MONITORING WELLS
2017 ANNUAL REPORT

WELL ID	Leachate Indicator	Ammonia	Bromide	Chloride	Phenols
	Groundwater Standard/ Guidance Value	2	2	250	0.001
Shallow Upper Glacial Wells (screened near or at water table)					
GM-1S		--	--	--	0.0034
GM-2S		--	--	--	--
4G-1		5.5	--	--	0.0026
6G-1		--	--	581	--
8G-1		--	--	--	--
9G-1		--	--	--	--
10G-1		--	--	--	--
11G-1		119	--	--	0.0386
13G-1		--	--	--	--
15G-1		--	--	--	--
16G-1		--	--	--	--
18G-1		42.2	--	--	0.0036
Mid-Upper Glacial Wells (screened above Smithtown Clay (- 35 to - 75 feet msl)					
4G-2		--	--	--	--
6G-2		--	--	--	--
11G-2		157	3.9	437	--
14G-1A		--	--	--	0.0454
18G-2*		4.5	--	--	--
Deep Upper Glacial/Shallow Magothy Wells (screened - 124 to - 167 feet msl)					
GM-1I		--	--	--	0.0016
GM-2I		--	--	--	0.0051
4M-1		122	4.7	451	0.0350
6G-3		7.7	--	--	0.0026
7M-1		--	--	--	--
8M-1		7.3	--	--	0.0021
10M-1		--	--	--	0.0021
11M-1		--	--	--	--
12M-1		--	--	--	0.0041
13M-1		--	--	--	0.0184
14G-2**		--	--	--	--
14M-1***		45	3.3	363	0.0172
16M-1		--	--	--	--
22M-1		--	--	--	--
23M-1		--	--	--	0.0052
Deep Magothy Wells (screened - 237 to - 368 feet msl)					
GM-1D		4.9	--	--	--
GM-2D		--	--	--	0.0025
4M-2		5.6	2.3	286	0.0015
6M-1		--	--	--	--
8M-2		--	--	--	0.0087

Notes:

All values reported in milligrams per liter (mg/l)

GM-1D was converted into a temporary extraction well in October 2013.

*: Well 18G-2 screened - 9 to - 29 feet msl.

**Well 14G-2 screened - 83 to - 103 msl.

***: Well 14M-1 screened - 174 to - 194 feet msl.

---: No exceedances

Exceeds the groundwater standard/guidance value

Table 4-5

**BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
COMPARISON OF EXTRACTION WELL SAMPLE RESULTS
TOTAL VOLATILE ORGANIC COMPOUNDS**

Well No.	First Quarter (February 2017)	Third Quarter (August 2017)	2017 Comparison	Historical Trend
EW-1	ND	ND	Consistent	Consistent since February 2002
EW-2	ND*	ND*	Consistent	Consistent since February 2002, with an increase noted in 2015
EW-3	1.3	1.3	Consistent	Decrease
EW-4	1.1	1.3	Consistent	Consistent since November 2002
EW-5	3.9	3.3	Consistent	Consistent since 1997
EW-6	ND*	ND*	Consistent	Consistent since 1997

Notes:

All results reported in ug/l.

Historical VOC graphs are presented in Appendix E-1.

ND - Not detected.

*Extraction well sampled during well shut down.

A comparison of the 2017 results, showed concentrations of TVOCs in all the extraction wells to have remained consistent (10 ug/l or less variability). It should be noted, none of the extraction wells contained TVOC concentrations above 10 ug/l. TVOCs were nondetect in EW-1, EW-2 and EW-6. TVOCs were 1.3 ug/l in both EW-3 and EW-4 and up to 3.9 ug/l in EW-5.

In general, with regard to historical trends, TVOC concentrations remained consistent in EW-1 (since February 2002), EW-2 (since 2002 with a slight increase noted in 2015), EW-4 (since November 2002), EW-5 (since 1997) and EW-6 (since 1997). Extraction well EW-3 exhibits a decreasing trend in comparison to historical TVOC results.

4.3.2 Inorganic Parameters

Tabulated analytical results for inorganic parameters for the extraction wells are provided in **Appendix D-2**. Graphs illustrating historical inorganic parameters from selected extraction wells, which exceeded NYSDEC Class GA groundwater standards or guidance values are presented in **Appendix E-2**. Discussion of the individual inorganic parameters for the extraction wells that were detected at concentrations exceeding NYSDEC Class GA groundwater standards and guidance values in 2017 are discussed below.

- Iron was detected above the groundwater standard (300 ug/l) in EW-2 at 3,890 ug/l (first quarter) and 2,580 ug/l (third quarter).
- Manganese was detected above the groundwater standard (300 ug/l) in EW-1, EW-3 and EW-4 for both the first and third quarter sampling events. Manganese concentrations in these wells ranged from 341 ug/l in EW-4 to 515 ug/l in EW-3.
- Sodium was detected above the groundwater standard (20,000 ug/l) in wells EW-1, EW-2, EW-3 and EW-4 for both the first and third quarter sampling events. Sodium concentrations in these wells ranged from 58,300 ug/l in EW-3 to 86,900 ug/l in EW-2.

4.3.3 Leachate Indicators

Tabulated analytical results for leachate indicators for the extraction wells are provided in **Appendix D-3**. Graphs illustrating historical leachate indicators from selected extraction wells, which exceeded NYSDEC Class GA groundwater standards or guidance values are presented in **Appendix E-3**. Discussion of the individual leachate indicators that were detected at concentrations exceeding NYSDEC Class GA groundwater standards in 2017 are discussed below:

- Ammonia concentrations exceeded the groundwater standard (2 mg/l) in EW-3 and EW-4 for both the first and third quarter sampling events. Ammonia concentrations in these extraction wells ranged from 2.8 mg/l in EW-3 to 11.7 mg/l in EW-4.
- Total Phenol concentration exceeded the groundwater standard (0.001 mg/l) in EW-2 (0.0021 mg/l), EW-4 (0.0486 mg/l) and EW-5 (0.0068 mg/l).

No other leachate parameters were detected in the extraction wells above the Class GA groundwater standards and guidance values.

4.4 **Organic Vapor and Combustible Gas Monitoring**

For the groundwater monitoring wells sampled during 2017, the results of the organic vapor and combustible gas monitoring in the headspace of the monitoring wells exhibited no detectable readings for VOC vapors and combustible gas.

5.0 DATA VALIDATION

Thirty-one groundwater samples (25 monitoring wells and six extraction wells), two blind duplicates, two matrix spike/matrix spike duplicate (MS/MSD) sets, two field blanks and eight trip blanks were collected as part of the first quarter sampling event (February 2017). Forty-three groundwater samples (36 monitoring wells, six extraction wells and temporary extraction well (GM-1D), two blind duplicates, two matrix spike/matrix duplicate sets, two field blanks and eight trip blanks were collected as part of the third quarter sampling event (August 2017). Samples in the first quarter and third quarter sampling events in 2017 were analyzed for 6 NYCRR Part 360 Baseline Parameters VOCs, including Freon 21 and Freon 22, inorganic parameters and leachate indicators. Sample analyses were 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 Environmental Laboratory Approval Program (ELAP) for the analyses performed.

The data packages submitted by the analytical laboratory (Pace Analytical Laboratory, Inc., Melville, NY), were validated in accordance with NYSDEC quality assurance/quality control (QA/QC) requirements. In accordance with the contract requirements and the Sampling and Analysis Plan (SAP), 20 percent of the environmental samples and all of the QA/QC samples (calibrations, blanks, spikes, etc.) were reviewed, yielding a “20% validation.” The validation forms for the two semiannual sampling events of 2017 are included in **Appendix F**.

February 2017 (First Quarter)

Three data packages (7011964, 7012031 and 7012116) submitted by the analytical laboratory, Pace Analytical Laboratory, Inc., Melville, NY, 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 of the 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 seven environmental samples (4G-1, 8M-1, EW-5, 14G-2, GM-1I, 6G-2 and EW-1).

Two duplicate samples were collected. Blind Duplicate 1 was a duplicate of sample 8M-1 and Blind Duplicate 2 was a duplicate of sample 23M-1. Matrix spike and matrix spike duplicate sets were collected at wells GM-1I and 13M-1.

The following requirements were outside limits:

- Acetone was detected in the trip, field and method blanks. Acetone was qualified as non-detect (UB) in samples 16M-1, EW-6, EW-1, EW-2, BLIND DUPLICATE-2, 7M-1, 23M-1, GM-1I, 6G-3, 6G-2, 6G-1 and 12M-1 and all samples in data package 7011964.
- The percent recoveries (%Rs) were above QC limits in the matrix spike (MS) and/ or MS duplicate for the following VOC and were qualified as estimated (J): methylene chloride in sample Field blank 3/1/17; trichloroethene in samples 7M-1, 23M-1 and BLIND DUPLICATE-2; 1,1,1-trichloroethane in sample 7M-1; and chlorobenzene, 1,2-dichlorobenzene and 1,4-dichlorobenzene in sample 6G-3.
- The %Rs were below QC limits in the laboratory control sample (LCS) for the following VOC and were qualified as an estimated detection limit (UJ): bromomethane in samples 18G-2, 18G-1, 8M-1, BLIND DUPLICATE-1, 8M-2, FIELD BLANK, 8G-1, 13M-1, 13G-1 and TRIP BLANK 2/22/17; and bromomethane, chloroethane, dichlorofluoromethane and trichlorofluoromethane in samples TRIP BLANK 2/28/17, FIELD BLANK 3/1/17, TRIP BLANK 3/1/17, TRIP BLANK 3/2/17, EW-6, 7M-1, EW-1, 23M-1, BLIND DUPLICATE-2, EW-2, 6G-3 and GM-1I.
- The following metals were detected in the initial blank, preparation blank and/or field blank and were qualified as non-detect (UB): antimony in samples 6G-1 and 16M-1; boron in samples 13G-1, 8M-2 and 8G-1; cobalt in samples 10M-1, 23M-1 and BLIND DUPLICATE-2; iron in samples 13G-1, 18G-2, BLIND DUPLICATE-1, 8M-1 and 18G-2; manganese in samples GM-1I, 10M-1, 7M-1, EW-6 and 16M-1; mercury in all samples; vanadium in samples 23M-1, BLIND DUPLICATE-2, GM-1I, 10M-1 and 16M-1; and zinc in samples 18G-1, 23M-1, BLIND DUPLICATE-2, 10M-1, EW-6 and 12M-1.
- The relative percent difference (RPD) was above the above QC limits for lead in the duplicate associated with samples FIELD BLANK 3/1/17, 23M-1, BLIND DUPLICATE-2, EW-2, GM-1I, 6G-3, 6G-2, 6G-1 and 12M-1. Lead was qualified as estimated (J/UJ) in the associated samples.

- The following were analyzed outside of holding times: hexavalent chromium associated with samples 7M-1, EW-1 and EW-6 and cyanide associated with 10M-1, 16M-1, 7M-1, EW-1 and EW-6. They were qualified as an estimated detection limit (UJ) in associated samples.
- The following general chemistry parameters were detected in the FIELD BLANK and/or laboratory blank and qualified as non-detect (UB): BOD in all samples in package 7011964 except EW-4; COD in samples 13G-1, 14G-2, 14G-1A, EW-3, EW-4, 13M-1, 4G-2, 8M-1, BLIND DUPLICATE-1, 8G-1, 8M-2, EW-5 and 22M-1; ammonia in samples 23M-1, EW-6, GM-1I, BLIND DUPLICATE-2, 16M-1, 6G-1, 6G-2, EW-1, EW-2, 14G-1A, 13G-1 and 8G-1; BOD, cyanide, COD and nitrite in all samples in package 7012116; BOD and nitrate in sample 4G-1.
- The %Rs were above the QC limit in the MS and qualified as estimated (J) in the following general chemistry parameters: nitrite in samples EW-4 and 4G-2 and total kjeldahl nitrogen in samples 13M-1, 14M-1, 11G-2, 11G-1, EW-3, EW-4, 22M-1, 4M-1 and 4M-2.
- The %Rs were above the QC limit in the MS and qualified as estimated (J/UJ) in the following general chemistry parameters: total kjeldahl nitrogen in samples 4G-1, FIELD BLANK_2/24/17, 18G-2, 18G-1, 8M-1, BLIND DUPLICATE-1, 8M-2, BLIND DUPLICATE-2, 6G-3, 6G-1, and 12M-1; and alkalinity associated with samples EW-1, 7M-1, FIELD BLANK, 23M-1, BLIND DUPLICATE-2, EW-2, GM-1I, 6G-3, 6G-2, 6G-1 and 12M-1.
- Sample 23M-1 was field duplicated and labeled BLIND DUPLICATE-2. Based on field duplicate results total kjeldahl nitrogen was qualified as estimated (J/UJ) in samples 23M-1 and BLIND DUPLICATE-2

No other issues were found with the sample results and all results are deemed valid and usable for environmental assessment purposes as qualified above.

August 2017 (Third Quarter)

The three data packages (7026094, 7026754 and 7027179) submitted by the analytical laboratory, Pace Analytical Services, Inc., Melville, NY, 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 eight environmental samples (GM-1I, 4G-2, 6G-3, 7M-1, 11G-1, 14G-2, EW-3 and EW-6).

Two duplicates were collected. Blind Duplicated A was a duplicate of sample 6G-3 and Blind Duplicate B was a duplicate of sample 16G-1. Matrix spike and matrix spike duplicate sets were collected at wells 8G-1 and 18G-1.

The following requirements were outside limits:

- Acetone was detected in the laboratory blank and Trip Blank. Acetone was qualified as non-detect (UB) in samples 18G-1, 11G-1, Blind Duplicate A, 6G-2 and 14M-1 and all samples if detected in data package 7027179 and 7026754.
- The percent recoveries (%R) above the QC limit in the matrix spike (MS) for bromochloromethane, cis-1,2-dichloroethene, toluene, total xylene and vinyl acetate and below the QC limit for trans-1,4-dichloro-2-butene associated with samples 6M-1, 10M-1, 10G-1, 16M-1, 16G-1, and 23M-1. The %R above the QC limit in the MS for total xylene associated with samples Trip Blank 8/10/17, 4M-2, 4G-2, 4M-1, 4G-1, 22M-1, 13G-1, 13M-1, Trip Blank 8/11/17 and EW-6. The RPD was above the QC limit in the MS/MSD for acrylonitrile, methylene chloride, trans-1,2-dichloroethene, 1,1-dichloroethene, 2-butanone (MEK), bromomethane, carbon disulfide, chlorodifluoromethane, chloroethane, dichlorofluoromethane, iodomethane and trichlorofluoromethane associated with samples 8G-1, 8M-1, 15G-1, GM-2S and Field Blank 8/14/17. Trans-1,4-dichloro-2-butene was qualified as an estimated detection limit (UJ) in samples 6M-1, 10M-1, 10G-1, 16M-1, 16G-1, and 23M-1.
- The following metals were detected in the initial blank, preparation blank and/or field blank and were qualified as non-detect (UB): aluminum in samples 6G-3, 14M-1, 11G-2, EW-5, GM-1D, 14G-2, 11G-1, 18G-1, 6G-2, Blind Duplicate A, 14G-1A, 12M-1, 18G-2 and 11M-1; boron in samples Blind Duplicate B, 16G-1, 15G-1, GM-2S, 10G-1, 13G-1, 7M-1, 8G-1, EW-6, GM-2D, GM-2I, 8M-2, 11M-1, EW-5 and 9G-1; cadmium in samples 6M-1, 4M-2, 4G-1, 16M-1, 4M-1, 7M-1, 4G-2 and GM-2S; iron in samples EW-4, EW-5 and GM-1D; mercury in all samples in package 726094 and all samples in package 7026754 except 8M-1; sodium in Blind Duplicate B and 16G-1 and zinc in samples GM-1D, 18G-1, 6G-2, EW-2, EW-3, EW-4, 18G-2, 11M-1 and 12M-1.
- The %R for silver was above the QC limit in the spike and post spike associated with the Field Blank in package 7026754. Silver was qualified as estimated bias high (JH) in that Field Blank.
- The relative percent difference (RPD) was above the above QC limits for the following duplicates: iron in package 7027179 and the field blank in package 7026754 and mercury

associated with samples 6M-1, 10M-1, 10G-1, 16M-1, 16G-1, 23M-1, 7M-1, 4M-2, 4G-2, 4M-1, 4G-1, 22M-1 and 13G-1. They were qualified as estimated (J/UJ) in associated samples.

- Hexavalent chromium was analyzed outside the holding time for samples 6G-1, 6G-2, 6G-3, 9G-1, 11G-1, 11G-2, 11M-1, 14G-1A, 14G-2, 14M-1, 18G-1, 18G-2, Blind Duplicate A, 8M-2, GM-2I, GM-1I, GM-1S, 15G-1, 16G-1, 23M-1, 6M-1, 8G-1, 8M-1, GM-2S, 10G-1, 10M-1, 16M-1 and Blind Duplicate B and nitrate in sample GM-1S and were qualified as an estimated detection limit (UJ).
- The following general chemistry parameters were detected in the initial blank, preparation blank and/or field blank and were qualified as non-detect (UB): BOD in samples 14G-1A, 14G-2, 18G-2, 18G-1, EW-3, 11M-1, EW-2, EW-5, EW-1, 9G-1, 6G-1, 6G-2, 12M-1, GM-1D, 14M-1, 11G-2 and 6G-3 and all samples in package 7026754 except 4M-1; TKN in samples GM-1I, 14G-2, 6G-1, 6G-2, EW-2, 14G-1A, 9G-1, 11M-1, Blind Duplicate B, 8G-1, 23M-1, 13G-1, 16M-1, 16G-1, GM-2S and 10G-1; hexavalent chromium in samples 18G-2, 18G-1, 14G-2, EW-3, 14M-1, EW-4, 6G-3, 6G-2, Blind Duplicate A, 14G-1A, 12M-1, 9G-1 and 6G-1; nitrate in samples 11M-1, 6G-3, 9G-1, Blind Duplicate A, 11G-2, 18G-1, 11G-1, 6G-2, 12M-1 and 6G-1; nitrite in samples 6G-1, 11G-1, 12M-1, 14M-1, 18G-2, 11G-2, 6G-3, EW-2, 8G-1, GM-2S and Blind Duplicate A; phenolics samples 11G-2, 11M-1, 14G-1A, 18G-2, 14G-2, EW-5, 9G-1, 6G-3, 12M-1, Blind Duplicate A, EW-3, EW-2, 6G-2, EW-1, GM-1D and all samples in package 7026754 except 13M-1 and 4M-1; and ammonia in samples 6G-1, 6G-2, EW-1, 9G-1, 14G-2, 11M-1, 12M-1, EW-5, EW-2, 14G-1A, 8G-1, 10M-1, 16G-1, Blind Duplicate B, Field Blank, 16M-1, 22M-1, 13G-1, 15G-1, 23M-1, EW-6, 7M-1, 10G-1, 4G-2, GM-2S and 13M-1; and TOC in samples 13G-1, EW-6, GM-2S and 22M-1.
- The %Rs were below the QC limit in the spike and were qualified as estimated (J/UJ) in associated samples: alkalinity associated with samples 4M-2, 4G-2, 4G-1, 22M-1, 13G-1, 13M-1, EW-6, 8G-1, 8M-1, 15G-1, GM-2S, EW-3, EW-4, 9G-1, 6G-1, 6G-2, 6G-3, 12M-1, Blind Duplicate A and Field Blank; nitrate associated with samples 10M-1, 10G-1, 16M-1, 16G-1, 23M-1, 7M-1, Blind Duplicate B, 4M-2, 4G-2, 4M-1, 4G-1, EW-3, EW-4, 11G-1, 11G-2, 11M-1, EW-2, EW-5, EW-1 and GM-1D; nitrite associated with samples 14M-1, 14G-1A, 14G-2, 18G-2 and 18G-1 and ammonia associated with samples GM-1D, EW-1, EW-2, EW-3, EW-4, EW-5, 11G-1, 11G-2, 11M-1, 6G-1, 6G-2, 6G-3, 9G-1, 12M-1, 18G-1, Field Blank and Blind Duplicate A.
- The %R was above the QC limit in the spike and were qualified as estimated (J) in associated samples: Total kjeldahl nitrogen in samples GM-1D, EW-3, EW-4, 6G-3, 11G-1, 11G-2, 12M-1, 14M-1, 18G-1, 18G-2, Blind Duplicate A, both Field Blanks, 8M-1 and all samples in package 7027179 except GM-1I; alkalinity in sample 4M-1; and nitrate in sample 6M-1.
- The RPD was above the QC limit in the duplicate and were qualified as estimated (J/UJ) in associated samples: alkalinity associated with samples 6M-1, 10M-1, 10G-1, 16M-1, 16G-1, 23M-1, 7M-1, Blind Duplicate B, EW-3 and EW-4; chemical oxygen demand

associated with samples GM-1D, EW-1, EW-2, EW-5, 6G-1, 6G-2, 6G-3, 9G-1, 12M-1 and Blind Duplicate A; total kjeldahl nitrogen associated with samples 9G-1, 6G-1, 6G-2, 6G-3, 12M-1, Blind Duplicate A and Field Blank; hardness in samples 6M-1, 10M-1, 10G-1, 16M-1, 16G-1, 23M-1, 7M-1, Blind Duplicate B, 4M-2, 4G-2, 4M-1, 4G-1, 22M-1, 13G-1, 13M-1, EW-6, 8G-1, 8M-1 and 15G-1; and TOC in samples 4M-2, 4G-2, 4M-1, 4G-1, 22M-1, 13G-1, 13M-1, EW-6, 8G-1, 8M-1, 15G-1, GM-2S and, Field Blank.

- Sample 6G-3 was field duplicated and labeled Blind Duplicate A. The following general chemistry parameters, BOD and true color, were qualified as estimated (J/UJ) based on field duplicate results in sample 6G-3 and Blind Duplicate A.
- Sample 16G-1 was field duplicated and labeled Blind Duplicate B. True color was qualified as estimated (J/UJ) based on field duplicate results in sample 16G-1 and Blind Duplicate B.

No other issues were found with the sample results and all results are deemed valid and usable for environmental assessment purposes as qualified above.

6.0 GROUNDWATER LEVEL MEASUREMENTS AND FLOW DIRECTION

D&B collected groundwater level measurements from 53 monitoring wells on February 23, 2017 and on August 1, 2017. In addition, 17 water level measurements were collected by D&B on these dates as part of the Cleanfill Landfill Groundwater Monitoring Program. The groundwater elevation measurements from 2017 are presented in **Appendix G**.

6.1 Water Table Contours

The water table elevation contour maps were generated using data from wells screened at or near the water table in the Upper Glacial aquifer. Water table elevation contour maps for February 23, 2017 and August 1, 2017 are presented in **Appendix H**.

In general, the two water table elevation contour maps prepared using 2017 data are fairly consistent with each other and illustrate that the groundwater flow direction in the Upper Glacial aquifer is predominately toward the south to southeast, which is consistent with previous maps prepared for the site. In general, the water table contours both upgradient and downgradient from the site, depict a more regional groundwater flow pattern. A localized mounding of the water table in the area of monitoring well 7G-1 is likely caused by recharge from the northeast storm water recharge basin. Mounding of the water table is also occurring in the area of the six recharge wells. The extent of the mounding and effects on the monitoring wells in the vicinity of 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 the contour maps.

Considerably lower than normal 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 in the vicinity of the Windwatch Sewage Treatment Plant in well 12G-1. 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 well locations. The reduction in groundwater recharge is primarily due to the landfill liners (primary and secondary liners) and leachate collection and storage (impoundment) systems associated with Cleanfill Landfill Phases 1 and 2.

Water levels from the above wells were not used in the preparation of the water table elevation contour maps.

6.2 Potentiometric Surface Contours

Potentiometric surface elevation contour maps for the zone from 83 to 167 feet below mean sea level (msl) were generated using data from wells screened near the Upper Glacial/Magothy contact. Potentiometric surface elevation contour maps for February 23, 2017 and August 1, 2017 are presented in **Appendix H**.

In general, the two potentiometric surface elevation contour maps prepared using 2017 data are fairly consistent with each other and illustrate that the direction of groundwater flow across the site is predominately toward the southeast and downgradient of the site, groundwater flow is predominately toward the south. The 2017 potentiometric surface elevation contour maps are fairly consistent with previous maps prepared for the site.

6.3 Recharge Well Water Levels

Historical water level elevation measurements from the recharge wells are presented in **Appendix I**. Water level elevation data collected from the six recharge wells during 2017 ranged from 46.86 feet above msl at RW-4 (first quarter 2017) to 169.16 feet above msl at RW-6 (first quarter 2017). 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 six recharge wells.

7.0 FINDINGS AND RECOMMENDATIONS

7.1 Findings

Groundwater Measurements and Flow Direction

Based on groundwater level measurements collected during the February and August 2017 sampling events, 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 fairly consistent with previous elevation measurements obtained and maps prepared for the site.

Groundwater Treatment Facility Recharge Well Water Levels

Based on water level measurements collected during the February and August 2017 sampling events for recharge wells RW-1, RW-3, RW-4 and RW-5, the data suggest that these wells remain effective and are not in need of rehabilitation or redevelopment. However, water level measurements in recharge wells 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.

Groundwater Quality

Based on a comparison of the Third Quarter 2016 results to the Third Quarter 2017 results for monitoring wells sampled on an annual basis, as well as the First Quarter 2017 results to the Third Quarter 2017 results for wells sampled on a semi-annual basis, groundwater quality downgradient and in the vicinity of the Blydenburgh Road Landfill Complex remained consistent (10 ug/l or less change in total VOCs) in all the wells except for 4M-1, 10M-1, 11G-2, 11M-1, 12M-1, 13M-1 and 14M-1. These wells exhibited a decrease in TVOCs of more than 10 ug/l.

For the February 2017 first quarter sampling event, 19 of the 25 groundwater monitoring wells sampled exhibited TVOCs at 10 ug/l or less. For the August 2017 third quarter sampling event, 34 of the 36 groundwater monitoring wells sampled exhibited TVOCs at 10 ug/l or less. Only one monitoring well (11G-2) during the first quarter of 2017, exceeded the groundwater remediation criterion of 50 ug/l established by the ROD for TVOCs. TVOCs in temporary extraction well (GM-1D) during 2017 ranged between 31 ug/l to 54 ug/l.

Twenty-five of the 36 monitoring wells for which historical trends could be established exhibit consistent trends for TVOCs. Seven wells (4M-1 since February 2004, 6G-3, 7M-1, 11G-1 since February 2006, 12M-1, 14M-1 and 16M-1 since 2004) exhibited decreasing historical trends for TVOCs. Four wells (GM-2I, 10M-1, 11G-2, and 13M-1) and temporary extraction well (GM-1D) exhibited an increasing historical trend for TVOCs.

Nearly all of the monitoring wells sampled (34 out of 36), as well as temporary extraction well (GM-1D), exhibited one or more of the following inorganic parameters: arsenic, boron, cadmium, iron, lead, manganese, magnesium, nickel, sodium, thallium and total chromium at concentrations exceeding their respective groundwater standards or guidance values.

Twenty-one of the 36 monitoring wells sampled, as well as temporary extraction well (GM-1D), exhibited one or more of the following leachate parameters: ammonia, bromide, chloride and phenols at concentrations exceeding their respective groundwater standards or guidance values.

Extraction Wells

Groundwater quality for all extraction wells remained consistent (variation in TVOCs of 10 ug/l or less) throughout the 2017 monitoring period. All of the extraction wells (EW-1 through EW-6) exhibited TVOC concentrations substantially below the remediation criterion of 50 ug/l.

In general, historical TVOC trends remained consistent in EW-1 (since February 2002), EW-4 (since November 2002), EW-5 (since 1997) and EW-6 (since 1997). For EW-2, TVOCs in 2017 were comparable to historical results, exclusive of calendar year 2015 which showed a slight increase. Extraction well EW-3 exhibits a decreasing trend in comparison to historical TVOC results.

Extraction wells EW-1, EW-2, EW-3, EW-4 and EW-5, exhibited one or more of the following inorganic parameters: iron, manganese and sodium at concentrations exceeding their respective groundwater standards or guidance value.

For leachate indicators, concentrations of ammonia exceeded the groundwater standard in EW-3 and EW-4. Total Phenol concentration exceeded the groundwater standard in EW-2, EW-4 and EW-5.

Organic Vapor and Combustible Gas Monitoring

The results of the organic vapor and combustible gas monitoring conducted during the 2017 semiannual sampling events exhibited no measureable readings in the headspace of the groundwater monitoring wells.

7.2 RECOMMENDATIONS

Based on the findings of the 2017 Post Closure Groundwater Monitoring Program, the following recommendation is presented:

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

APPENDIX A

SUMMARY OF FINAL FIELD PARAMETER RESULTS AND FIELD DATA

APPENDIX A

BLYDENBURGH ROAD LANDFILL COMPLEX POST CLOSURE GROUNDWATER MONITORING PROGRAM GROUNDWATER SAMPLING - FIRST QUARTER 2017 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			Purging Method	Groundwater Elevation (feet above msl)
							PID (ppm)	% LEL			
GM-1I	7.00	13.74	0.686	0	120	1.46	0	0		Submersible pump	37.40
4G-2	6.76	21.39	0.728	0	-19	0.49	0	0		Submersible pump	37.53
4M-1	7.10	19.13	3.65	0	-164	0.59	0	0		Submersible pump	37.29
4M-2	6.27	13.98	1.37	6.4	-119	0.40	0	0		Submersible pump	35.40
6G-1	6.48	15.43	0.406	112	214	6.97	0	0		Submersible pump	37.16
6G-2	6.18	18.17	0.583	0	126	0.61	0	0		Submersible pump	37.35
6G-3	6.47	16.37	0.652	0	-138	0.91	0	0		Submersible pump	37.51
7M-1	5.01	11.73	0.255	0	204	0.80	0	0		Submersible pump	37.86
8G-1	5.48	14.61	1.83	0	193	9.46	0	0		Submersible pump	36.91
8M-1	6.97	13.81	0.855	0	181	0.94	0	0		Submersible pump	36.79
8M-2	6.05	11.98	0.113	0	146	0.77	0	0		Submersible pump	36.90
10M-1	7.47	11.02	0.881	0	38	1.06	0	0		Submersible pump	36.43
11G-1	7.49	23.96	2.09	0	-170	0.25	0	0		Submersible pump	37.45
11G-2	7.14	21.72	3.45	0	-179	0.31	0	0		Submersible pump	37.45
12M-1	6.31	15.25	1.01	0	-9	1.11	0	0		Submersible pump	37.44
13G-1	5.03	12.23	0.175	0	192	9.71	0	0		Submersible pump	36.75
13M-1	7.00	11.15	0.896	0	-52	0.82	0	0		Submersible pump	36.71
14G-1A	7.50	14.39	0.646	0	155	5.00	0	0		Submersible pump	37.48
14G-2	7.53	14.65	0.623	0	135	3.43	0	0		Submersible pump	37.54
14M-1	7.09	13.99	2.64	0	-111	0.86	0	0		Submersible pump	37.17
16M-1	7.13	11.49	0.720	0	112	1.46	0	0		Submersible pump	35.82
18G-1	6.41	21.34	0.628	0	82	4.95	0	0		Submersible pump	37.61
18G-2	5.86	21.39	0.463	0	139	1.59	0	0		Submersible pump	37.64
22M-1	5.90	11.85	0.226	0	-9	0.61	0	0		Submersible pump	37.98
23M-1	5.93	10.88	0.499	0	138	1.37	0	0		Submersible pump	37.71

APPENDIX A (Continued)

BLYDENBURGH ROAD LANDFILL COMPLEX POST CLOSURE GROUNDWATER MONITORING PROGRAM GROUNDWATER SAMPLING - FIRST QUARTER 2017 SUMMARY OF FINAL FIELD PARAMETER RESULTS AND FIELD DATA

Monitoring Well	Initial Depth to Water (in feet)	Depth of Well (in feet)	Well Diameter (inches)	Volume of Water Purged (gallons)	Date of Sampling	Time of Sampling	Initials of Samplers	Weather Condition
GM-1I	113.85	285	4	400	3/1/17	5:15 p.m.	KR	Showers
4G-2	132.50	211	4	175	2/24/17	12:30 p.m.	KR	Partly Cloudy
4M-1	131.66	325	4	400	2/24/17	9:00 a.m.	KR	Partly Cloudy
4M-2	134.13	486	4	675	2/24/17	11:35 a.m.	KR	Partly Cloudy
6G-1	143.01	147	4	3 (bailed dry)	3/2/17	11:00 a.m.	KR	Partly Sunny
6G-2	141.30	230	4	200	3/2/17	10:00 a.m.	KR	Partly Sunny
6G-3	142.32	315	4	350	3/2/17	9:00 a.m.	KR	Partly Sunny
7M-1	29.70	214	4	400	2/28/17	4:00 p.m.	KR	Sunny Warm
8G-1	97.06	114	4	75	2/22/17	2:25 p.m.	KR	Overcast
8M-1	98.42	269	4	350	2/22/17	11:10 a.m.	KR	Overcast
8M-2	98.21	384	4	575	2/22/17	1:30 p.m.	KR	Overcast
10M-1	52.41	256	4	420	2/24/17	3:30 p.m.	KR	Partly Cloudy
11G-1	131.45	145	4	96	2/23/17	2:40 p.m.	KR	Overcast Warm
11G-2	131.86	221	4	200	2/23/17	1:45 p.m.	KR	Overcast Warm
12M-1	140.22	338	4	400	3/2/17	2:15 p.m.	KR	Partly Sunny
13G-1	73.74	93	4	100	2/22/17	5:15 p.m.	KR	Overcast
13M-1	73.21	265	4	420	2/22/17	4:30 p.m.	KR	Overcast
14G-1A	124.25	220	4	200	2/23/17	11:40 a.m.	KR	Overcast Cool
14G-2	124.82	264	4	300	2/23/17	10:35 a.m.	KR	Overcast Cool
14M-1	124.81	355	4	475	2/23/17	9:15 a.m.	KR	Overcast Cool
16M-1	41.08	240	4	425	2/24/17	4:45 p.m.	KR	Partly Cloudy
18G-1	131.01	157.5	4	100	2/22/17	8:40 a.m.	KR	Overcast
18G-2	131.14	197.5	4	150	2/22/17	8:05 a.m.	KR	Overcast
22M-1	23.06	222.5	4	400	2/23/17	5:20 p.m.	KR	Overcast Warm
23M-1	39.10	240	4	425	3/1/17	8:30 a.m.	KR	Showers

Note: Final field parameter readings were measured upon completion of sample collection.

APPENDIX A (Continued)

BLYDENBURGH ROAD LANDFILL COMPLEX POST CLOSURE GROUNDWATER MONITORING PROGRAM GROUNDWATER SAMPLING - FIRST QUARTER 2017 SUMMARY OF FINAL FIELD PARAMETER RESULTS AND FIELD DATA

Extraction Well	pH (Standard Units)	Temperature (°C)	Specific Conductance (ms/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/l)	Date of Sampling	Time of Sampling
EW-1	7.27	17.16	0.585	1.7	188	5.09	2/28/17	4:30 p.m.
EW-2	6.86	14.09	0.652	17.5	-23	4.11	3/1/17	9:20 a.m.
EW-3	6.95	14.58	0.533	23	130	5.10	2/23/17	1:50 p.m.
EW-4	7.02	14.70	0.579	0.9	166	8.10	2/23/17	2:30 p.m.
EW-5	7.72	12.18	0.214	50	150	8.18	2/23/17	1:30 p.m.
EW-6	6.85	11.39	0.254	0	119	7.81	2/28/17	12:30 p.m.
GM-1D**	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

Final field parameter readings were measured upon completion of sample collection.

ppm: Parts Per Million
 % LEL: Lower Explosive Limit
 PID: Photoionization Detector
 mV: Millivolt
 mg/l: Milligrams Per Liter
 ORP: Oxidation Reduction Potential
 NS: Not Sampled
 °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.

APPENDIX A (Continued)

BLYDENBURGH ROAD LANDFILL COMPLEX POST CLOSURE GROUNDWATER MONITORING PROGRAM GROUNDWATER SAMPLING – THIRD QUARTER 2017 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 8/1/17 (feet above msl)
							PID (ppm)	% LEL			
GM-1S	6.92	16.15	0.491	12	204	5.99	0	0	Submersible pump	37.86	
GM-1I	7.90	15.00	0.563	0	60	5.82	0	0	Submersible pump	37.77	
GM-2S	5.41	15.18	0.153	6	258	6.51	0	0	Submersible pump	37.87	
GM-2I	6.61	13.00	0.263	0	102	7.00	0	0	Submersible pump	37.85	
GM-2D	6.33	13.22	0.051	6	165	7.09	0	0	Submersible pump	37.36	
4G-1	6.73	24.33	0.509	0	-10	2.75	0	0	Submersible pump	38.16	
4G-2	7.76	23.53	0.540	0	55	3.02	0	0	Submersible pump	38.00	
4M-1	6.61	22.07	2.98	0	-103	3.36	0	0	Submersible pump	37.84	
4M-2	6.89	17.33	1.17	6	-20	6.79	0	0	Submersible pump	35.63	
6G-1	6.97	18.90	0.269	30	105	5.43	0	0	Submersible pump	37.68	
6G-2	6.83	19.75	0.443	0	160	9.75	0	0	Submersible pump	37.86	
6G-3	6.98	18.19	0.495	0	-22	4.23	0	0	Submersible pump	37.98	
6M-1	7.26	15.34	0.201	0	28	4.15	0	0	Submersible pump	37.24	
7M-1	6.10	14.48	0.195	0	245	6.61	0	0	Submersible pump	38.15	
8G-1	6.68	15.55	0.910	0	171	7.14	0	0	Submersible pump	37.33	
8M-1	7.59	15.61	0.659	0	31	3.90	0	0	Submersible pump	37.37	
8M-2	6.79	14.73	0.221	0	128	5.62	0	0	Submersible pump	37.14	
9G-1	5.85	17.83	0.038	19	311	7.57	0	0	Submersible pump	38.21	
10G-1	6.05	14.73	0.261	13	122	6.35	0	0	Submersible pump	36.73	
10M-1	7.10	14.77	0.246	1	171	4.93	0	0	Submersible pump	36.71	
11G-1	7.70	25.63	1.73	3	-14	4.80	0	0	Submersible pump	37.89	
11G-2	7.68	25.45	2.80	2	36	4.59	0	0	Submersible pump	39.93	
11M-1	6.58	16.75	0.438	0	114	4.72	0	0	Submersible pump	38.02	
12M-1	7.01	18.88	0.705	48	46	3.37	0	0	Submersible pump	38.88	
13G-1	5.79	13.98	0.142	0	199	6.82	0	0	Submersible pump	37.25	
13M-1	7.26	13.25	0.298	0	60	4.97	0	0	Submersible pump	37.14	
14G-1A	6.85	16.12	1.42	0	219	4.22	0	0	Submersible pump	37.96	
14G-2	7.24	17.84	0.479	0	202	5.60	0	0	Submersible pump	37.94	
14M-1	7.36	19.60	1.95	5	-13	3.61	0	0	Submersible pump	37.60	
15G-1	5.83	14.65	0.173	0	262	6.90	0	0	Submersible pump	37.31	

APPENDIX A (Continued)

BLYDENBURGH ROAD LANDFILL COMPLEX POST CLOSURE GROUNDWATER MONITORING PROGRAM GROUNDWATER SAMPLING – THIRD QUARTER 2017 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 8/1/17 (feet above msl)
							PID (ppm)	% LEL		
16G-1	6.05	14.64	0.072	0	191	6.09	0	0	Submersible pump	36.02
16M-1	7.16	13.85	0.566	0	161	4.54	0	0	Submersible pump	36.02
18G-1	6.78	23.21	0.791	0	101	0.40	0	0	Submersible pump	36.11
18G-2	6.86	22.60	0.498	0	136	4.86	0	0	Submersible pump	36.13
22M-1	6.38	14.57	0.156	0	169	10.57	0	0	Submersible pump	36.13
23M-1	6.67	13.33	0.369	0	178	2.71	0	0	Submersible pump	38.05

Note: Final field parameter readings were measured upon completion of sample collection.

APPENDIX A (Continued)

BLYDENBURGH ROAD LANDFILL COMPLEX POST CLOSURE GROUNDWATER MONITORING PROGRAM GROUNDWATER SAMPLING – THIRD QUARTER 2017 SUMMARY OF FINAL FIELD PARAMETER RESULTS AND FIELD DATA

Monitoring Well	Initial Depth to Water (in feet)	Depth of Well (in feet)	Well Diameter (inches)	Volume of Water Purged (gallons)	Date of Sampling	Time of Sa.m.pling	Initials of Samplers	Weather Condition
GM-1S	113.31	135	4	75	8/14/17	7:45 a.m.	DR/TJ	Sunny
GM-1I	113.42	285	4	450	8/14/17	8:50 a.m.	DR/TJ	Sunny
GM-2S	122.21	149	4	75	8/14/17	3:00 p.m.	DR/TJ	Sunny
GM-2I	122.80	298	4	450	8/14/17	4:45 p.m.	DR/TJ	Sunny
GM-2D	123.35	398	4	550	8/14/17	5:10 p.m.	DR/TJ	Sunny
4G-1	130.31	164	4	100	8/11/17	10:20 a.m.	DR/TJ	Sunny
4G-2	132.03	211	4	275	8/11/17	8:15 a.m.	DR/TJ	Sunny
4M-1	131.11	325	4	450	8/11/17	10:10 a.m.	DR/TJ	Sunny
4M-2	133.90	486	4	700	8/11/17	9:35 a.m.	DR/TJ	Sunny
6G-1	142.49	147	4	60	8/9/17	10:55 a.m.	DR/TJ	Sunny
6G-2	140.79	230	4	250	8/9/17	10:40 a.m.	DR/TJ	Sunny
6G-3	141.85	315	4	400	8/9/17	9:10 a.m.	DR/TJ	Sunny
6M-1	141.16	545	4	800	8/9/17	9:55 a.m.	DR/TJ	Sunny
7M-1	29.41	214	4	450	8/10/17	2:40 p.m.	DR/TJ	Sunny
8G-1	96.41	114	4	100	8/14/17	10:15 a.m.	DR/TJ	Sunny
8M-1	97.84	270	4	400	8/14/17	12:00 p.m.	DR/TJ	Sunny
8M-2	97.97	384	4	575	8/14/17	11:20 a.m.	DR/TJ	Sunny
9G-1	52.09	68	4	80	8/8/17	1:15 p.m.	DR/TJ	Sunny
10G-1	51.79	69	4	72	8/10/17	9:00 a.m.	DR/TJ	Sunny
10M-1	52.15	256	4	500	8/10/17	8:50 a.m.	DR/TJ	Sunny
11G-1	131.01	145	4	60	8/3/17	7:25 a.m.	DR/TJ	Sunny
11G-2	131.38	221	4	250	8/3/17	8:45 a.m.	DR/TJ	Sunny
11M-1	130.30	320	4	600	8/3/17	9:25 a.m.	DR/TJ	Sunny
12M-1	139.78	338	4	500	8/9/17	3:05 p.m.	DR/TJ	Sunny
13G-1	73.24	93	4	75	8/11/17	1:15 p.m.	DR/TJ	Sunny
13M-1	72.78	265	4	500	8/11/17	2:15 p.m.	DR/TJ	Sunny
14G-1A	123.77	220	4	200	8/2/17	9:55 a.m.	DR/TJ	Sunny
14G-2	124.00	264	4	300	8/2/17	12:05 p.m.	DR/TJ	Sunny
14M-1	124.38	355	4	500	8/2/17	10:25 a.m.	DR/TJ	Sunny
15G-1	145.34	160	4	64	8/14/17	1:40 p.m.	DR/TJ	Sunny
16G-1	40.90	57	4	60	8/10/17	9:55 a.m.	DR/TJ	Sunny
16M-1	40.88	240	4	500	8/10/17	10:45 a.m.	DR/TJ	Sunny

APPENDIX A (Continued)

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
GROUNDWATER SAMPLING – THIRD QUARTER 2017
SUMMARY OF FINAL FIELD PARAMETER RESULTS AND FIELD DATA

Monitoring Well	Initial Depth to Water (in feet)	Depth of Well (in feet)	Well Diameter (inches)	Volume of Water Purged (gallons)	Date of Sampling	Time of Sa.m.pling	Initials of Samplers	Weather Condition
18G-1	130.51	157.5	4	100	8/2/17	1:20 p.m.	DR/TJ	Sunny
18G-2	160.65	197.5	4	175	8/2/17	2:20 p.m.	DR/TJ	Sunny
22M-1	22.91	222.5	4	450	8/11/17	12:10 p.m.	DR/TJ	Sunny
23M-1	38.76	240	4	400	8/10/17	1:00 p.m.	DR/TJ	Sunny

Note: Final field parameter readings were measured upon completion of sample collection.

APPENDIX A (Continued)

BLYDENBURGH ROAD LANDFILL COMPLEX POST CLOSURE GROUNDWATER MONITORING PROGRAM GROUNDWATER SAMPLING – THIRD QUARTER 2017 SUMMARY OF FINAL FIELD PARAMETER RESULTS AND FIELD DATA

Extraction Well	pH (Standard Units)	Temperature (°C)	Specific Conductance (ms/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/l)	Date of Sampling	Time of Sampling
EW-1	6.49	18.56	0.458	24	257	3.00	8/4/17	1:30 p.m.
EW-2	7.03	18.53	0.491	61	109	2.84	8/4/17	2:30 p.m.
EW-3	7.42	16.08	0.577	0	185	6.35	8/3/17	3:45 p.m.
EW-4	7.31	15.90	0.624	0	183	4.58	8/3/17	4:00 p.m.
EW-5	5.80	14.68	0.222	0	216	1.15	8/4/17	1:00 p.m.
EW-6	7.44	15.97	0.134	0	63	3.44	8/11/17	3:00 p.m.
GM-1D*	6.98	12.70	1.40	0	191	1.03	8/14/17	3:30 p.m.

Notes:

Final field parameter readings were measured upon completion of sample collection.

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

APPENDIX B-1

MONITORING WELL SAMPLE RESULTS - VOLATILE ORGANIC COMPOUNDS

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

Page 1 of 38

			Sample ID	GM-1D*	GM-1D*	GM-1D*	GM-1D*
			Sample_date	03/01/16	04/22/16	06/29/16	08/03/16
			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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	5	6	5	4 J	
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++	5	6	5	5	
2-Hexanone	591-78-6	50 GV	U	U	U	U	
Acetone	67-64-1	50 GV	U	1 BJ	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	1 J	1 J	1 J	1 J	
Chlorodifluoromethane (Freon 22)	75-45-6	---	12	10	U	6	
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	9	11	8	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	14	16	12	10	
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	4 J	3 J	3 J	
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	4 J	3 J	3 J	
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	3 J	5	2 J	2 J	
Xylenes, Total	XYLENES	5 ST+	U	U	U	U	
Total Volatile Organic Compounds			55	64	39	41	

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

Page 2 of 38

			Sample ID	GM-1D*	GM-1D*	GM-1D*	GM-1D*
			Sample_date	06/09/17	08/04/17	10/27/17	12/18/17
			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
Units in ug/l							
	CAS	NYSDEC CLASS GA					
COMPOUNDS	Number	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	2.7	6.1	7.4	5.6	
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	1.3	1	
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U	
1,2-Dichloropropane	78-87-5	1 ST	U	U	1		
1,4-Dichlorobenzene	106-46-7	3 ST++	5.7	7	8.5	7.1	
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	1.4	1.6	1.8	1.5	
Chlorodifluoromethane (Freon 22)	75-45-6	---	3.1	7.9	U	8 J	
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	5.2	10.4	13.5	9.5	
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	7.3	11.9	U	11.9 J	
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	2.6	U	
Styrene	100-42-5	5 ST	U	U	U	U	
Tetrachloroethylene(PCE)	127-18-4	5 ST	3.9	3.2	4.4	3.3	
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	1.8	2.9	3.1	2.9	
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	2.4	2.7	2.3	
Xylenes, Total	XYLENES	5 ST+	U	U	U	U	
Total Volatile Organic Compounds		---	31.1	54.5	46.3	53.1	

+ 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

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

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

Page 3 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			GM-11 03/07/16 285' -138' DOWN	GM-11 08/03/16 285' -138' DOWN	GM-11 03/01/17 285' -138' DOWN	GM-11 08/14/17 285' -138' DOWN
Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
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	UJ	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	UJ	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	UJ	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	UJ	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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 4 of 38

			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'
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
	CAS	NYSDEC CLASS GA					
COMPOUNDS	Number	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	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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 5 of 38

			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
Units in ug/l							
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	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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 6 of 38

			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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	2	U	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	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	2	
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 **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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 7 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l			GM-2S 09/03/14 149' 12' DOWN	GM-2S 09/01/15 149' 12' DOWN	GM-2S 08/08/16 149' 12' DOWN	GM-2S 08/14/17 149' 12' 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	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	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

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

Page 8 of 38

			Sample ID	4G-1	4G-1	4G-1	4G-1
			Sample_date	08/14/14	08/18/15	8/3/16	08/11/17
			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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 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++	4 J	4 J	1 J	1	
2-Hexanone	591-78-6	50 GV	U	U	U	U	
Acetone	67-64-1	50 GV	UBJ	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	1 J	1 J	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		---	5	6	1	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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 9 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			4G-2 03/02/16 211' -45' DOWN	4G-2 08/03/16 211' -45' DOWN	4G-2 02/24/17 211' -45' DOWN	4G-2 08/11/17 211' -45' 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	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	---	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 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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 10 of 38

			Sample ID	4M-1	4M-1	4M-1	4M-1
			Sample_date	03/02/16	08/03/16	02/24/17	08/11/17
			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
Units in ug/l							
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 J	1 J	1.6	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++	3 J	3 J	2.7	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++	15	13	13.1	3.5	
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	3 J	3 J	3.4	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	4 J	4.4	1.3	
Chlorodifluoromethane (Freon 22)	75-45-6	---	28	7	U	1.1	
Chloroethane	75-00-3	5 ST	2 J	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	2 J	2	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	1 J	U	U	U	
Xylenes, Total	XYLENES	5 ST+	U	U	U	U	
Total Volatile Organic Compounds		---	66	33	27.2	5.9	

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

Page 11 of 38

			Sample ID	4M-2	4M-2	4M-2	4M-2
			Sample_date	03/01/16	08/03/16	02/24/17	08/11/17
			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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	1	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	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	---	6	4 J	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	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	6	5	5	1.6	
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	U	1	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		---	12	9	8	3.1	

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

Page 12 of 38

			Sample ID	6G-1	6G-1	6G-1	6G-1
			Sample_date	03/04/16	08/11/16	03/02/17	08/09/17
			Depth of Well BGS	147'	147'	147'	147'
			Depth to bottom screen, relative to MSL	32'	32'	32'	32'
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
	CAS	NYSDEC CLASS GA					
COMPOUNDS	Number	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	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 **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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 13 of 38

			Sample ID	6G-2	6G-2	6G-2	6G-2
			Sample_date	03/04/16	08/11/16	03/02/17	08/09/17
			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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	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	---	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	
Dichlorodifluoromethane (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

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

Page 14 of 38

			Sample ID	6G-3	6G-3	6G-3	6G-3
			Sample_date	03/04/16	08/11/16	03/02/17	08/09/17
			Depth of Well BGS	315'	315'	315'	315'
			Depth to bottom screen, relative to MSL	-138'	-138'	-138'	-138'
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS	NYSDEC CLASS GA					
	Number	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++	1 J	1 J	1 J	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	5	5 J	3
	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	UJ	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	3 J	2 J	2 J	1.4
	Chlorodifluoromethane (Freon 22)	75-45-6	---	2 J	U	U	U
	Chloroethane	75-00-3	5 ST	U	U	UJ	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	UJ	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	UJ	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		---	12	8	8	4.4	

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

Page 15 of 38

			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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	

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

Page 16 of 38

			Sample ID	7M-1	7M-1	7M-1	7M-1
			Sample_date	03/02/16	08/10/16	02/28/17	08/10/17
			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
Units in ug/l							
	CAS	NYSDEC CLASS GA					
COMPOUNDS	Number	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	Z	3 J	2 J	2.9	
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	U	U	U	
1,1-Dichloroethene	75-35-4	5 ST	2 J	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	UJ	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	UJ	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	UJ	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 J	1.4	
Trichlorofluoromethane	75-69-4	5 ST	U	U	UJ	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		---	12	4	3.1	4.3	

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

Page 17 of 38

			Sample ID	8G-1	8G-1	8G-1	8G-1
			Sample_date	02/23/16	08/02/16	02/22/17	08/14/17
			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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	---	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 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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 18 of 38

			Sample ID	8M-1	8M-1	8M-1	8M-1
			Sample_date	02/23/16	08/02/16	02/22/17	08/14/17
			Depth of Well BGS	270'	270'	270'	270'
			Depth to bottom screen, relative to MSL	-134'	-134'	-134'	-134'
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
	CAS	NYSDEC CLASS GA					
COMPOUNDS	Number	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 J	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	2 J	2	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	UJ	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	---	3 J	2 J	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	1 J	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	1 J	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				8	5	2	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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 19 of 38

			Sample ID	8M-2	8M-2	8M-2	8M-2
			Sample_date	02/23/16	08/02/16	02/22/17	08/14/17
			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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	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 **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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 20 of 38

			Sample ID	9G-1	9G-1	9G-1	9G-1
			Sample_date	08/25/14	08/27/15	08/09/16	08/08/17
			Depth of Well BGS	68'	68'	68'	68'
			Depth to bottom screen, relative to MSL	23'	23'	23'	23'
Units in ug/l			Gradient relative to MSW	UP	UP	UP	UP
	CAS	NYSDEC CLASS GA					
COMPOUNDS	Number	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	---	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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 21 of 38

			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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 result:

MSW Municipal Solid Waste

GV Guidance Value

ST Standard

++ Applies to sum of isomer

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

Page 22 of 38

			Sample ID	10M-1	10M-1	10M-1	10M-1
			Sample_date	02/28/16	08/10/16	02/24/17	08/10/17
			Depth of Well BGS	256	256	256	256
			Depth to bottom screen, relative to MSL	-167	-167	-167	-167
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
	CAS	NYSDEC CLASS GA					
COMPOUNDS	Number	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	3 J	2 J	2	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	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	---	3 J	2 J	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	5	3 J	2.9	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	3 J	2.9	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 J	3.6	1.6	
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	2 J	1 J	1.1	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	15	12.5	1.6	

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

Page 23 of 38

			Sample ID	11G-1	11G-1	11G-1	11G-1
			Sample_date	03/07/16	08/09/16	02/23/17	08/03/17
			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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 J	1	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	5	3.9	2.9	
2-Hexanone	591-78-6	50 GV	U	U	U	U	
Acetone	67-64-1	50 GV	UB	UB	UB	UB	
Acrylonitrile	107-13-1	5 ST	U	U	U	U	
Benzene	71-43-2	1 ST	1 J	1 J	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	1 J	1 J	1	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			8	8	5.9	2.9	

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

Page 24 of 38

			Sample ID	11G-2	11G-2	11G-2	11G-2
			Sample_date	03/07/16	08/09/16	02/23/17	08/03/17
			Depth of Well BGS	220'	220'	220'	220'
			Depth to bottom screen, relative to MSL	-51	-51	-51	-51
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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	5	2 J	2.6	1.5	
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	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>7</u>	<u>6</u>	<u>6.2</u>	<u>2.6</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>36</u>	<u>33</u>	<u>30.8</u>	<u>12.1</u>	
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>3 J</u>	<u>2 J</u>	<u>2.6</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>7</u>	<u>6</u>	<u>6.8</u>	1.8	
Chlorodifluoromethane (Freon 22)	75-45-6	---	28	9	U	3.1	
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	2 J	U	1	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>11</u>	<u>6</u>	<u>6.2</u>	2.9	
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	2 J	1 J	1.3	U	
Xylenes, Total	XYLENES	5 ST+	U	U	U	U	
Total Volatile Organic Compounds		---	101	65	57.5	24	

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

Page 25 of 38

			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
Units in ug/l							
	CAS	NYSDEC CLASS GA					
COMPOUNDS	Number	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	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	

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

Page 26 of 38

			Sample ID	12M-1	12M-1	12M-1	12M-1
			Sample_date	03/04/16	08/11/16	03/02/17	08/09/17
			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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 J	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>3 J</u>	<u>2 J</u>	<u>2.6</u>	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++	<u>12</u>	<u>10</u>	<u>10.3</u>	1.2	
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>6</u>	5	<u>5.9</u>	U	
Chlorodifluoromethane (Freon 22)	75-45-6	---	5	2 J	<u>1.4</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	3 J	2 J	1,2	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 J	1 J	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	1	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	1 J	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	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		---	34	23	22.4	2.6	

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

Page 27 of 38

			Sample ID	13G-1	13G-1	13G-1	13G-1
			Sample_date	02/28/16	08/09/16	02/22/17	08/11/17
			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
Units in ug/l							
COMPOUNDS	CAS	NYSDEC CLASS GA					
	Number	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	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	UJ	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

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 result:

MSW Municipal Solid Waste

GV Guidance Value

ST Standard

++ Applies to sum of isomer

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

Page 28 of 38

			Sample ID	13M-1	13M-1	13M-1	13M-1
			Sample_date	02/28/16	08/09/16	02/22/17	08/11/17
			Depth of Well BGS	265'	265'	265'	265'
			Depth to bottom screen, relative to MSL	-155	-155	-155	-155
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS	NYSDEC CLASS GA					
	Number	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 J	4 J	3.7	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++	5	6	6.9	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	UJ	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 J	1.7	U
	Chlorodifluoromethane (Freon 22)	75-45-6	---	7	4 J	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	8	7	7.1	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	10	8	7.1	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	10	9	9.4	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	3 J	3 J	2.9	U
	Trichlorofluoromethane	75-69-4	5 ST	1 J	U	1.3	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				50	43	40.1	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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 29 of 38

			Sample ID	14G-1A	14G-1A	14G-1A	14G-1A
			Sample_date	02/24/16	08/02/16	02/23/17	08/02/17
			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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	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 **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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 30 of 38

			Sample ID	14G-2	14G-2	14G-2	14G-2
			Sample_date	02/24/16	08/02/16	02/23/17	08/02/17
			Depth of Well BGS	264'	264'	264'	264'
			Depth to bottom screen, relative to MSL	-103	-103	-103	-103
Units in ug/l			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	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 **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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 31 of 38

			Sample ID	14M-1	14M-1	14M-1	14M-1
			Sample_date	02/24/16	08/02/16	02/23/17	08/02/17
			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
Units in ug/l							
COMPOUNDS	CAS	NYSDEC CLASS GA					
	Number	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	8	7	7.6	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++	3 J	3 J	3.1	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++	15	15	14.9	6.3	
2-Hexanone	591-78-6	50 GV	U	U	U	U	
Acetone	67-64-1	50 GV	UB	UB	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	3 J	3 J	3.3	1.4	
Chlorodifluoromethane (Freon 22)	75-45-6	---	20	11	U	4.5	
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	5	4 J	4.1	2.1	
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	12	9	9.2	4.1	
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	2 J	1 J	1.1	U	
Xylenes, Total	XYLENES	5 ST+	U	U	U	U	
Total Volatile Organic Compounds		---	68	53	43.3	24	

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

Page 32 of 38

			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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	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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 33 of 38

			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
Units in ug/l							
COMPOUNDS	CAS	NYSDEC CLASS GA					
	Number	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	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 B-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Page 34 of 38

			Sample ID	16M-1	16M-1	16M-1	16M-1
			Sample_date	02/28/16	08/10/16	02/24/17	08/10/17
			Depth of Well BGS	240'	240'	240'	240'
			Depth to bottom screen, relative to MSL	-163	-163	-163	-163
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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		0.68 J
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		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	---	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	1 J	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	5	5	4.4		3.1
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				7	5	4.4	3.78

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

Page 35 of 38

			Sample ID	18G-1	18G-1	18G-1	18G-1
			Sample_date	02/23/16	08/03/16	02/22/17	08/02/17
			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
Units in ug/l							
	CAS	NYSDEC CLASS GA					
COMPOUNDS	Number	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++	2 J	2 J	2,3	1,5	
2-Hexanone	591-78-6	50 GV	U	U	U	U	
Acetone	67-64-1	50 GV	UB	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	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		---	2	2	2,3	1,5	

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

Page 36 of 38

			Sample ID	18G-2	18G-2	18G-2	18G-2
			Sample_date	02/23/16	08/03/16	02/22/17	08/02/17
			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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	2 J	3.5	2	
2-Hexanone	591-78-6	50 GV	U	U	U	U	
Acetone	67-64-1	50 GV	UB	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	UJ	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		---	2	2	3.5	2	

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

Page 37 of 38

			Sample ID	22M-1	22M-1	22M-1	22M-1
			Sample_date	03/07/16	08/10/16	02/23/17	08/11/17
			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
Units in ug/l							
	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
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	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

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

Page 38 of 38

			Sample ID	23M-1	23M-1	23M-1	23M-1
			Sample_date	03/02/16	08/09/16	03/01/17	08/10/17
			Depth of Well BGS	240'	240'	240'	240'
			Depth to bottom screen, relative to MSL	-164'	-164'	-164'	-164'
Units in ug/l			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	1 J	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	1 J	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	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	UJ	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	UJ	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	UJ	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	2 J	1 J	1.3 J	U	
Trichlorofluoromethane	75-69-4	5 ST	U	U	UJ	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	1	1.3	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 B-2

MONITORING WELL SAMPLE RESULTS - INORGANIC PARAMETERS

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

Page 1 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			GM-1D* 03/01/16 399' -247' DOWN	GM-1D* 04/22/16 399' -247' DOWN	GM-1D* 06/29/16 399' -247' DOWN	GM-1D* 08/03/16 399' -247' DOWN	GM-1D* 10/24/16 399' -247' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--	34 J	U	U	U	U
Antimony	7440-36-0	3 ST	U	U	U	U	U
Arsenic	7440-38-2	25 ST	U	U	U	U	U
Barium	7440-39-3	1000 ST	U	U	U	U	U
Beryllium	7440-41-7	3 GV	U	U	U	U	U
Boron	7440-42-8	1000 ST	313	277	290	274	168
Cadmium	7440-43-9	5 ST	0.2 J	U	U	U	U
Calcium	7440-70-2	--	95100	90500	88500	90600	46200
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	U	U	U	U
Cobalt	7440-48-4	--	U	U	U	0.4 J	U
Copper	7440-50-8	200 ST	1.2 J	1.3 J	1.3 J	13.1 J	U
Cyanide	57-12-5	200 ST	U	U	U	U	U
Iron	7439-89-6	300 ST#	234 J-	314	420	527	U
Lead	7439-92-1	25 ST	6	8.3	1.1 J	8.3	U
Magnesium	7439-95-4	35000 GV	59700	56700	54700	57800	28100
Manganese	7439-96-5	300 ST#	8.2 J	6.5 J	8.4 J	7.4 J	416
Mercury	7439-97-6	0.7 ST	UB	U	U	U	U
Nickel	7440-02-0	100 ST	7.7 J	6.9 J	7.2 J	8 J	U
Potassium	7440-09-7	--	5220	4710 J	4290 J	3860 J	6800
Selenium	7782-49-2	10 ST	U	U	U	U	U
Silver	7440-22-4	50 ST	U	U	U	U	U
Sodium	7440-23-5	20000 ST	162000 J	149000	149000	153000 J	60300
Thallium	7440-28-0	0.5 GV	U	U	U	U	U
Vanadium	7440-62-2	--	U	U	U	U	U
Zinc	7440-66-6	2000 GV	U	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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 2 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			GM-1D* 04/05/17 399' -247' DOWN	GM-1D* 06/09/17 399' -247' DOWN	GM-1D* 08/04/17 399' -247' DOWN	GM-1D* 10/27/17 399' -247' DOWN	GM-1D* 12/18/17 399' -247' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--	36.2 J	U	UB	UB	U
Antimony	7440-36-0	3 ST	U	U	U	U	U
Arsenic	7440-38-2	25 ST	U	U	U	U	U
Barium	7440-39-3	1000 ST	38 J	11.9 J	6.3 J	3.8 J	3.1 J
Beryllium	7440-41-7	3 GV	U	U	U	U	U
Boron	7440-42-8	1000 ST	205	315	331	318	341
Cadmium	7440-43-9	5 ST	0.34 J	0.074 J	U	U	U
Calcium	7440-70-2	--	48400	88400	95500	92900	95800
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	U	U	U	U
Cobalt	7440-48-4	--	4.6 J	1.6 J	0.96 J	U	U
Copper	7440-50-8	200 ST	U	145	U	U	2.9 J
Cyanide	57-12-5	200 ST	U	U	U	U	U
Iron	7439-89-6	300 ST#	125	65.2 J	UB	145	232
Lead	7439-92-1	25 ST	3.4 J	U	5.2	U	U
Magnesium	7439-95-4	35000 GV	<u>33400</u>	<u>56200</u>	<u>60400</u>	<u>60100</u>	<u>63200</u>
Manganese	7439-96-5	300 ST#	<u>327</u>	98	39.4	20.5	18
Mercury	7439-97-6	0.7 ST	U	U	UB	U	U
Nickel	7440-02-0	100 ST	11.2 J	11.4 J	9.6 J	9.2 J	9.7 J
Potassium	7440-09-7	--	6960	6460	6100	5360	6340
Selenium	7782-49-2	10 ST	U	U	U	U	U
Silver	7440-22-4	50 ST	U	U	U	U	U
Sodium	7440-23-5	20000 ST	<u>71600</u>	<u>142000</u>	<u>154000</u>	<u>147000</u>	<u>157000</u>
Thallium	7440-28-0	0.5 GV	U	U	U	U	U
Vanadium	7440-62-2	--	U	0.82 J	U	U	U
Zinc	7440-66-6	2000 GV	9.6 J	255	UB	6.2 J	4.2 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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 3 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			GM-1I 03/07/16 285' -138' DOWN	GM-1I 08/03/16 285' -138' DOWN	GM-1I 03/01/17 285' -138' DOWN	GM-1I 08/14/17 285' -138' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	23.9 J	U	U	88.4 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	24.4 J	21.2 J	23.6 J	28.5 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	142	118	128	130
Cadmium	7440-43-9	5 ST	U	U	U	0.22 J
Calcium	7440-70-2	--	42600	41100	47500	46700
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	UJ
Chromium, Total	7440-47-3	50 ST	5.6 J	U	U	5.2 J
Cobalt	7440-48-4	--	4.9 J	4 J	4.2 J	4.5 J
Copper	7440-50-8	200 ST	0.4 J	2.3 J	U	5.1 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	UJ	U	13.5 J	195 J
Lead	7439-92-1	25 ST	6.4	6.9	5.1 J	3.2 J
Magnesium	7439-95-4	35000 GV	26800	25100	28600	29400
Manganese	7439-96-5	300 ST#	U	U	UB	8.9 J
Mercury	7439-97-6	0.7 ST	UB	U	UB	0.031 J
Nickel	7440-02-0	100 ST	9.8 J	6.8 J	9.8 J	13.2 J
Potassium	7440-09-7	--	3150 J	2130 J	2780 J	3640 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	53000 J	47800 J	51600	50500
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	U	U	UB	1.9 J
Zinc	7440-66-6	2000 GV	U	UB	U	19.4 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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 4 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			GM-1S 08/28/14 135' 19' DOWN	GM-1S 09/03/15 135' 19' DOWN	GM-1S 08/03/16 135' 19' DOWN	GM-1S 08/14/17 135' 19' 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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 5 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			GM-2D 08/28/14 398' -248' DOWN	GM-2D 09/01/15 398' -248' DOWN	GM-2D 08/08/16 398' -248' DOWN	GM-2D 08/14/17 398' -248' 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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 6 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			GM-2I 08/28/14 298' -136' DOWN	GM-2I 09/01/15 298' -136' DOWN	GM-2I 08/08/16 298' -136' DOWN	GM-2I 08/14/17 298' -136' 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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 7 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			GM-2S 09/03/14 149' 12' DOWN	GM-2S 09/01/15 149' 12' DOWN	GM-2S 08/08/16 149' 12' DOWN	GM-2S 08/14/17 149' 12' 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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 8 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			4G-1 08/18/15 164' 2' DOWN	4G-1 8/3/16 164' 2' DOWN	4G-1 02/24/17 164' 2' DOWN	4G-1 08/11/17 164' 2' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	U	NR	78.4 J
Antimony	7440-36-0	3 ST	U	U	NR	U
Arsenic	7440-38-2	25 ST	U	U	NR	U
Barium	7440-39-3	1000 ST	157 B	83.9 J	NR	128 J
Beryllium	7440-41-7	3 GV	U	U	NR	U
Boron	7440-42-8	1000 ST	269 BJ	153	NR	179
Cadmium	7440-43-9	5 ST	0.9 B	U	U	UB
Calcium	7440-70-2	--	13000 J	7640	9390	11500
Chromium, Hexavalent	18540-29-9	50 ST	U	U	NR	U
Chromium, Total	7440-47-3	50 ST	UB	U	NR	U
Cobalt	7440-48-4	--	11.9 B	6.8 J	NR	11.2 J
Copper	7440-50-8	200 ST	UB	1.6 J	NR	5 J
Cyanide	57-12-5	200 ST	U	U	NR	U
Iron	7439-89-6	300 ST#	11200	5850	7280	5780
Lead	7439-92-1	25 ST	14.7	6.5	UB	3.1 J
Magnesium	7439-95-4	35000 GV	7420 J	4120	4590	5400
Manganese	7439-96-5	300 ST#	7320 J	4050	4870	6430
Mercury	7439-97-6	0.7 ST	UJ	U	NR	UJ
Nickel	7440-02-0	100 ST	24.8 B	15.8 J	NR	21 J
Potassium	7440-09-7	--	25800	14800	12800	13700
Selenium	7782-49-2	10 ST	U	U	NR	U
Silver	7440-22-4	50 ST	UB	U	NR	U
Sodium	7440-23-5	20000 ST	99000	87200 J	91500	84500
Thallium	7440-28-0	0.5 GV	U	6.3 J	NR	8.4 J
Vanadium	7440-62-2	--	U	U	NR	U
Zinc	7440-66-6	2000 GV	UB	U	NR	20.7

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

Page 9 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			4G-2 03/02/16 211' -45' DOWN	4G-2 08/03/16 211' -45' DOWN	4G-2 02/24/17 211' -45' DOWN	4G-2 08/11/17 211' -45' DOWN
Units in ug/l						
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	25.1 J	U	U	266
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	71.3 J	77.5 J	99.2 J	132 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	126	110	130	142
Cadmium	7440-43-9	5 ST	0.2 J	U	U	UB
Calcium	7440-70-2	--	23700	26900	34700	37200
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	4.5 J	U	U	3.6 J
Cobalt	7440-48-4	--	3.1 J	3.1 J	5.3 J	5.5 J
Copper	7440-50-8	200 ST	3.9 J	3.6 J	4.1 J	10.3 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	<u>711 J-</u>	<u>761</u>	<u>343</u>	<u>2490</u>
Lead	7439-92-1	25 ST	4.9 J	6.5	2.9 J	3.9 J
Magnesium	7439-95-4	35000 GV	5520	6400	8390	9240
Manganese	7439-96-5	300 ST#	<u>3720</u>	<u>4330</u>	<u>5020</u>	<u>7040</u>
Mercury	7439-97-6	0.7 ST	UB	U	U	UBJ
Nickel	7440-02-0	100 ST	13.8 J	10.3 J	15.3 J	18.8 J
Potassium	7440-09-7	--	8350	7480	9620	11500
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	<u>88900 J</u>	<u>87600 J</u>	<u>92900</u>	<u>85200</u>
Thallium	7440-28-0	0.5 GV	U	<u>7 J</u>	U	<u>6 J</u>
Vanadium	7440-62-2	--	U	U	0.88 J	U
Zinc	7440-66-6	2000 GV	U	UB	5.3 J	40.3

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

Page 10 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			4M-1 03/02/16 325' -159' DOWN	4M-1 08/03/16 325' -159' DOWN	4M-1 02/24/17 325' -159' DOWN	4M-1 08/11/17 325' -159' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	66.9 J	U	U	354
Antimony	7440-36-0	3 ST	U	U	U	U
Arsenic	7440-38-2	25 ST	17.1	17.5	19.9	19
Barium	7440-39-3	1000 ST	21.8 J	19.3 J	19.5 J	22.4 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	1740	1570	1750	1510
Cadmium	7440-43-9	5 ST	U	U	U	UB
Calcium	7440-70-2	--	57800	56900	56300	52400
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	14.2	3.4 J	3.5 J	6.3 J
Cobalt	7440-48-4	--	23.7 J	23 J	25 J	19.2 J
Copper	7440-50-8	200 ST	5.6 J	5.3 J	4.2 J	13.7 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	927 J-	1120	1400	1590
Lead	7439-92-1	25 ST	8.8	13.5	1.3 J	4 J
Magnesium	7439-95-4	35000 GV	57100	55600	55600	46800
Manganese	7439-96-5	300 ST#	2180	2030	2000	1690
Mercury	7439-97-6	0.7 ST	UB	0.082 J	U	UBJ
Nickel	7440-02-0	100 ST	183	161	172	139
Potassium	7440-09-7	--	104000	91900	94100	83400
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	433000 J	408000 J	427000	352000
Thallium	7440-28-0	0.5 GV	U	2.9 J	U	U
Vanadium	7440-62-2	--	U	U	4 J	3.7 J
Zinc	7440-66-6	2000 GV	U	U	2.5 J	41.8

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

Page 11 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			4M-2 03/01/16 486' -320' DOWN	4M-2 08/03/16 486' -320' DOWN	4M-2 02/24/17 486' -320' DOWN	4M-2 08/11/17 486' -320' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	U	U	101 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	U	U	3.6 J	6.9 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	34.9 J	46.4 J	50	62.4
Cadmium	7440-43-9	5 ST	U	U	U	UB
Calcium	7440-70-2	--	55900	60400	61800	62800
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	6.8 J	U	U	1.6 J
Cobalt	7440-48-4	--	2.3 J	2.5 J	3.2 J	3.4 J
Copper	7440-50-8	200 ST	0.8 J	U	U	5.1 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	1220 J-	1390	1530	1490
Lead	7439-92-1	25 ST	5.1	6.1	U	2.2 J
Magnesium	7439-95-4	35000 GV	30800	34100	35000	35600
Manganese	7439-96-5	300 ST#	17.5	18.7	20.6	56.6
Mercury	7439-97-6	0.7 ST	UB	U	U	UBJ
Nickel	7440-02-0	100 ST	12.3 J	10 J	11.3 J	13.6 J
Potassium	7440-09-7	--	2820 J	3120 J	4130 J	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	163000 J	168000 J	170000	169000
Thallium	7440-28-0	0.5 GV	U	2 J	U	U
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	U	U	4.4 J	26.1

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

Page 12 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			6G-1 03/04/16 147' 32' DOWN	6G-1 08/11/16 147' 32' DOWN	6G-1 03/02/17 147' 32' DOWN	6G-1 08/09/17 147' 32' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	24.3 J	U	3910	6160
Antimony	7440-36-0	3 ST	U	U	UB	U
Arsenic	7440-38-2	25 ST	U	U	U	U
Barium	7440-39-3	1000 ST	U	U	58.6 J	61.3 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	46.8 J	63.7 J	73.8	63.5
Cadmium	7440-43-9	5 ST	U	U	1.4 J	0.25 J
Calcium	7440-70-2	--	15300	17300	19800	17300
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	UJ
Chromium, Total	7440-47-3	50 ST	10.2	2.6 J	2130	1930
Cobalt	7440-48-4	--	0.7 J	1 J	18.8 J	24.9 J
Copper	7440-50-8	200 ST	0.6 J	UB	48.2	47.5
Cyanide	57-12-5	200 ST	U	UJ	UB	U
Iron	7439-89-6	300 ST#	91.4 J-	U	16800	17400
Lead	7439-92-1	25 ST	4.7 J	4.2 J	15.5 J	13.8
Magnesium	7439-95-4	35000 GV	6020	6970	7940	6930
Manganese	7439-96-5	300 ST#	2.9 J	U	894	1130
Mercury	7439-97-6	0.7 ST	UB	UJ	UB	UB
Nickel	7440-02-0	100 ST	17.6 J	2.8 J	146	114
Potassium	7440-09-7	--	2340 J	2370 J	3190 J	4950 J
Selenium	7782-49-2	10 ST	U	U	U	U
Silver	7440-22-4	50 ST	U	UJ	U	U
Sodium	7440-23-5	20000 ST	36400 J	51200	53400	46400
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	U	U	17.2 J	23.6 J
Zinc	7440-66-6	2000 GV	U	6.7 J	29.8	33.2

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

Page 13 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			6G-2 03/04/16 230' -53' DOWN	6G-2 08/11/16 230' -53' DOWN	6G-2 03/02/17 230' -53' DOWN	6G-2 08/09/17 230' -53' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	U	U	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	36.7 J	37 J	40.7 J	48.2 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	117	110	118	111
Cadmium	7440-43-9	5 ST	U	U	U	0.16 J
Calcium	7440-70-2	--	19100	21400	23400	22400
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	UB
Chromium, Total	7440-47-3	50 ST	U	U	U	U
Cobalt	7440-48-4	--	11.2 J	8.1 J	8.2 J	9.5 J
Copper	7440-50-8	200 ST	1.1 J	UB	U	3.4 J
Cyanide	57-12-5	200 ST	U	UJ	UB	4.7 J
Iron	7439-89-6	300 ST#	UJ	U	U	132
Lead	7439-92-1	25 ST	3.3 J	3.1 J	2.8 J	3.3 J
Magnesium	7439-95-4	35000 GV	7380	8170	8830	8580
Manganese	7439-96-5	300 ST#	112	109	114	<u>347</u>
Mercury	7439-97-6	0.7 ST	UB	UJ	UB	U
Nickel	7440-02-0	100 ST	7.1 J	5.5 J	5.7 J	6.8 J
Potassium	7440-09-7	--	1650 J	1130 J	1290 J	2580 J
Selenium	7782-49-2	10 ST	U	U	U	U
Silver	7440-22-4	50 ST	U	UJ	U	U
Sodium	7440-23-5	20000 ST	<u>90400 J</u>	<u>89400</u>	<u>85400</u>	<u>85100</u>
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	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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 14 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			6G-3 03/04/16 315' -138' DOWN	6G-3 08/11/16 315' -138' DOWN	6G-3 03/02/17 315' -138' DOWN	6G-3 08/09/17 315' -138' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	29.1 J	U	U	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	50.9 J	47.1 J	52.1 J	101 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	248	219	254	227
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	38100	38800	41400	40000
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	UB
Chromium, Total	7440-47-3	50 ST	2.5 J	U	U	U
Cobalt	7440-48-4	--	5.7 J	5.3 J	6.2 J	36.8 J
Copper	7440-50-8	200 ST	U	UB	U	2.9 J
Cyanide	57-12-5	200 ST	U	UJ	UB	U
Iron	7439-89-6	300 ST#	106 J-	153	191	1910
Lead	7439-92-1	25 ST	6.1	5 J	7.4 J	5.3
Magnesium	7439-95-4	35000 GV	21800	22200	23200	22700
Manganese	7439-96-5	300 ST#	3390	3410	4060	5730
Mercury	7439-97-6	0.7 ST	UB	UJ	UB	UB
Nickel	7440-02-0	100 ST	17.3 J	13.9 J	15.5 J	18.4 J
Potassium	7440-09-7	--	9470	8100	8460	9600
Selenium	7782-49-2	10 ST	U	U	U	U
Silver	7440-22-4	50 ST	U	UJ	U	U
Sodium	7440-23-5	20000 ST	49800 J	43300	42400	41000
Thallium	7440-28-0	0.5 GV	U	6.6 J	U	UB
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	U	U	U	42.3

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

Page 15 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			6M-1 08/27/14 545' -368' DOWN	6M-1 09/02/15 545' -368' DOWN	6M-1 08/11/16 545' -368' DOWN	6M-1 08/09/17 545' -368' DOWN
Units in ug/l						
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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 16 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			7M-1 03/02/16 214' -152' CROSS	7M-1 08/10/16 214' -152' CROSS	7M-1 02/28/17 214' -152' CROSS	7M-1 08/10/17 214' -152' CROSS
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	U	U	44.3 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	U	U	10.6 J	14.2 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	35.3 J	30.3 J	31.8 J	UB
Cadmium	7440-43-9	5 ST	U	U	U	UB
Calcium	7440-70-2	--	15700	18000	19200	17700
Chromium, Hexavalent	18540-29-9	50 ST	U	U	UJ	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	0.7 J	U	U	U
Cyanide	57-12-5	200 ST	U	U	UJ	U
Iron	7439-89-6	300 ST#	UJ	U	U	60.1
Lead	7439-92-1	25 ST	5.5	2.7 J	1.8 J	1.6 J
Magnesium	7439-95-4	35000 GV	6620	8040	8720	7470
Manganese	7439-96-5	300 ST#	8.6 J	6.3 J	UB	21.5
Mercury	7439-97-6	0.7 ST	UB	UB	UB	UBJ
Nickel	7440-02-0	100 ST	U	U	U	U
Potassium	7440-09-7	--	2180 J	782 J	1780 J	1870 J
Selenium	7782-49-2	10 ST	U	UJ	U	U
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	13700 J	14100 J	13700	13800
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	U	12.6 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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 17 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			8G-1 02/23/16 114' 20' DOWN	8G-1 08/02/16 114' 20' DOWN	8G-1 02/22/17 114' 20' DOWN	8G-1 08/14/17 114' 20' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	U	13.8 J	641
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	78.1 J	78.6 J	246	125 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	35.6 J	24.9 J	UB	UB
Cadmium	7440-43-9	5 ST	0.30 J	0.2 J	U	8.6
Calcium	7440-70-2	--	46400	56400	76100	78100
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	4.6 J	5.3 J	7.5 J	70.2
Cobalt	7440-48-4	--	UB	U	U	0.79 J
Copper	7440-50-8	200 ST	UB	0.9 J	U	9.2 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	U	U	52.1 J	1100
Lead	7439-92-1	25 ST	2.1 J	5.3	1.4 J	8.1
Magnesium	7439-95-4	35000 GV	14800	18300	26400	20000
Manganese	7439-96-5	300 ST#	8.4 J	10.6 J	12.3	51.4
Mercury	7439-97-6	0.7 ST	U	U	U	UB
Nickel	7440-02-0	100 ST	7.8 J	5.7 J	8.2 J	16.9 J
Potassium	7440-09-7	--	3160 J	2370 J	5700	5780
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	72200	47200 J	268000	118000
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	U	U	U	1.6 J
Zinc	7440-66-6	2000 GV	4.9 J	UB	8.6 J	140

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

Page 18 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			8M-1 02/23/16 270' -134' DOWN	8M-1 08/02/16 270' -134' DOWN	8M-1 02/22/17 270' -134' DOWN	8M-1 08/14/17 270' -134' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	22.6 J	U	36.8 J	6520
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	47.5 J	45.3 J	45.2 J	150 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	325	297	261	178
Cadmium	7440-43-9	5 ST	0.20 J	U	0.22 J	2 J
Calcium	7440-70-2	--	56600	54700	50500	46000
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	U	U	15.5
Cobalt	7440-48-4	--	10.8 J	10.2 J	8.7 J	7.8 J
Copper	7440-50-8	200 ST	3.3 J	2.3 J	2.6 J	41.6
Cyanide	57-12-5	200 ST	U	U	U	14.2
Iron	7439-89-6	300 ST#	U	U	UB	5880
Lead	7439-92-1	25 ST	1.8 J	8.4	U	20.6
Magnesium	7439-95-4	35000 GV	36100	34800	29300	15000
Manganese	7439-96-5	300 ST#	45.2	42.9	32.4	122
Mercury	7439-97-6	0.7 ST	U	U	U	3.4
Nickel	7440-02-0	100 ST	24.6 J	23.1 J	19.6 J	29 J
Potassium	7440-09-7	--	8950 J	8070	8280	6380
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	96000	89600 J	144000	94100
Thallium	7440-28-0	0.5 GV	U	2.3 J	U	U
Vanadium	7440-62-2	--	U	U	U	11.3 J
Zinc	7440-66-6	2000 GV	9.3 J	UB	44.9	745

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

Page 19 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			8M-2 02/23/16 383' -248' DOWN	8M-2 08/02/16 383' -248' DOWN	8M-2 02/22/17 383' -248' DOWN	8M-2 08/14/17 383' -248' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	U	U	766
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	4.8 J	15.1 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	21.8 J	19.3 J	UB	UB
Cadmium	7440-43-9	5 ST	U	U	U	<u>10.2</u>
Calcium	7440-70-2	--	11700	11400	10700	12500
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	UJ
Chromium, Total	7440-47-3	50 ST	U	U	U	5.1 J
Cobalt	7440-48-4	--	UB	U	U	1.8 J
Copper	7440-50-8	200 ST	UB	0.3 J	U	20.6 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	U	U	U	<u>2040 J</u>
Lead	7439-92-1	25 ST	1.5 J	6.1	U	<u>65.5</u>
Magnesium	7439-95-4	35000 GV	6470	6360	6020	6460
Manganese	7439-96-5	300 ST#	12.9 J	10.7 J	10.3	<u>144</u>
Mercury	7439-97-6	0.7 ST	U	U	U	0.029 J
Nickel	7440-02-0	100 ST	U	U	1.4 J	10.1 J
Potassium	7440-09-7	--	769 J	U	1310 J	1810 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	12200	11800 J	9960	<u>22100</u>
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	U	U	U	2.9 J
Zinc	7440-66-6	2000 GV	U	U	1.6 J	248

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

Page 20 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			9G-1 08/25/14 68' 23' UP	9G-1 08/27/15 68' 23' UP	9G-1 08/09/16 68' 23' UP	9G-1 08/08/17 68' 23' UP
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	U	2880
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	5.1 B	U	14.5 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	UB	UB	6.4 J	UB
Cadmium	7440-43-9	5 ST	U	U	U	0.36 J
Calcium	7440-70-2	--	1620 B	3330 BJ	4530	1720
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	UB	2.4 J	21.4
Cobalt	7440-48-4	--	U	U	U	1.1 J
Copper	7440-50-8	200 ST	UB	U	U	5.1 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	UB	U	U	2680
Lead	7439-92-1	25 ST	U	1.4 BJ	U	8
Magnesium	7439-95-4	35000 GV	527 B	1240 BJ	1400	611
Manganese	7439-96-5	300 ST#	UB	UBJ	4.1 J	83
Mercury	7439-97-6	0.7 ST	U	UJ	UB	UB
Nickel	7440-02-0	100 ST	0.6 B	UB	7.4 J	7 J
Potassium	7440-09-7	--	417 B	UBJ	U	3530 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	3900 BJ	7040 J	5970
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	U	U	U	5.4 J
Zinc	7440-66-6	2000 GV	UB	UB	U	70.7

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

Page 21 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			10G-1 08/21/14 69' 20' DOWN	10G-1 08/14/15 69' 20' DOWN	10G-1 08/10/16 69' 20' DOWN	10G-1 08/10/17 69' 20' 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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 22 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			10M-1 02/28/16 256 -167 DOWN	10M-1 08/10/16 256 -167 DOWN	10M-1 02/24/17 256 -167 DOWN	10M-1 08/10/17 256 -167 DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	U	U	582
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	3.1 J	6.6 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	71.0 J	70.5 J	71.5	38.5 J
Cadmium	7440-43-9	5 ST	U	U	U	5.5
Calcium	7440-70-2	--	78500	73100	70800	19700
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	15 J
Chromium, Total	7440-47-3	50 ST	U	U	U	2.5 J
Cobalt	7440-48-4	--	U	0.7 J	UB	1.1 J
Copper	7440-50-8	200 ST	UB	UB	U	7.7 J
Cyanide	57-12-5	200 ST	U	U	UJ	U
Iron	7439-89-6	300 ST#	U	U	19.8 J	2600
Lead	7439-92-1	25 ST	2.5 J	3.3 J	U	U
Magnesium	7439-95-4	35000 GV	49100	46100	45200	9860
Manganese	7439-96-5	300 ST#	3.5 J	3.6 J	UB	135
Mercury	7439-97-6	0.7 ST	U	UB	U	UBJ
Nickel	7440-02-0	100 ST	4.2 J	6 J	5.7 J	9 J
Potassium	7440-09-7	--	2570 J	2100 J	3400 J	12400
Selenium	7782-49-2	10 ST	UJ	UJ	U	U
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	32800	33900 J	41400	11100
Thallium	7440-28-0	0.5 GV	U	UB	U	U
Vanadium	7440-62-2	--	U	U	UB	U
Zinc	7440-66-6	2000 GV	U	U	UB	110

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

Page 23 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			11G-1 03/07/16 145' 22' DOWN	11G-1 08/09/16 145' 22' DOWN	11G-1 02/23/17 145' 22' DOWN	11G-1 08/03/17 145' 22' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	71.8 J	U	72.4 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	63.7 J	58.3 J	50.9 J	59.2 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	1010	930	901	879
Cadmium	7440-43-9	5 ST	0.20 J	U	0.11 J	0.34 J
Calcium	7440-70-2	--	4090	3150	3460	3280
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	5.0 J	3.3 J	6.1 J	7.1 J
Cobalt	7440-48-4	--	31.4 J	27.5 J	26.9 J	24.1 J
Copper	7440-50-8	200 ST	27.6	25.3	26.9	26
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	273 J-	321	613	885
Lead	7439-92-1	25 ST	3.6 J	2.6 J	U	5.6
Magnesium	7439-95-4	35000 GV	4310	4090	4240	4670
Manganese	7439-96-5	300 ST#	3390	2720	2620	1770
Mercury	7439-97-6	0.7 ST	UB	UB	0.025 J	UB
Nickel	7440-02-0	100 ST	134	114	110	105
Potassium	7440-09-7	--	80700	77300	61000	65200
Selenium	7782-49-2	10 ST	U	UJ	U	U
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	259000 J	240000 J	236000	222000
Thallium	7440-28-0	0.5 GV	U	UB	U	U
Vanadium	7440-62-2	--	U	U	1.3 J	1.8 J
Zinc	7440-66-6	2000 GV	U	U	6 J	25.3

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

Page 24 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			11G-2 03/07/16 220' -51 DOWN	11G-2 08/09/16 220' -51 DOWN	11G-2 02/23/17 220' -51 DOWN	11G-2 08/03/17 220' -51 DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	76.8 J	U	U	UB
Antimony	7440-36-0	3 ST	U	U	U	U
Arsenic	7440-38-2	25 ST	U	3.9 J	U	U
Barium	7440-39-3	1000 ST	203	212	216	227
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	1680	1660	1760	1650
Cadmium	7440-43-9	5 ST	U	U	U	0.17 J
Calcium	7440-70-2	--	29400	25800	22400	24300
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	3.4 J	3.1 J	4.9 J	5.6 J
Cobalt	7440-48-4	--	41.2 J	41.8 J	43.2 J	33.1 J
Copper	7440-50-8	200 ST	23.6 J	28.1	26.2	17 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	512 J-	605	699	842
Lead	7439-92-1	25 ST	3.3 J	2.6 J	1.5 J	3.9 J
Magnesium	7439-95-4	35000 GV	20500	19700	19400	18800
Manganese	7439-96-5	300 ST#	4400	3500	3200	1510
Mercury	7439-97-6	0.7 ST	UB	UB	0.053 J	UB
Nickel	7440-02-0	100 ST	189	195	205	190
Potassium	7440-09-7	--	97700	104000	94300	93700
Selenium	7782-49-2	10 ST	U	UJ	U	U
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	411000 J	413000 J	418000	381000
Thallium	7440-28-0	0.5 GV	U	U	U	UB
Vanadium	7440-62-2	--	U	U	1.9 J	U
Zinc	7440-66-6	2000 GV	U	U	5.2 J	21

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

Page 25 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			11M-1 08/22/14 320' -154' DOWN	11M-1 08/19/15 320' -154' DOWN	11M-1 08/09/16 320' -154' DOWN	11M-1 08/03/17 320' -154' 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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 26 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			12M-1 03/04/16 338' -163' DOWN	12M-1 08/11/16 338' -163' DOWN	12M-1 03/02/17 338' -163' DOWN	12M-1 08/09/17 338' -163' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	34.6 J	U	U	UB
Antimony	7440-36-0	3 ST	U	U	U	U
Arsenic	7440-38-2	25 ST	<u>29.6</u>	<u>31.8</u>	<u>30.1</u>	<u>57.7</u>
Barium	7440-39-3	1000 ST	18.5 J	19.2 J	21.5 J	53.8 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	227	224	292	251
Cadmium	7440-43-9	5 ST	0.2 J	U	U	0.35 J
Calcium	7440-70-2	--	73400	81200	77600	74700
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	--	3.1 J	2.9 J	3.1 J	13.9 J
Copper	7440-50-8	200 ST	2.2 J	UB	U	6.8 J
Cyanide	57-12-5	200 ST	U	UJ	UB	U
Iron	7439-89-6	300 ST#	<u>1620 J-</u>	<u>2320</u>	<u>2270</u>	<u>6300</u>
Lead	7439-92-1	25 ST	7	6.4	7.9 J	9.1
Magnesium	7439-95-4	35000 GV	<u>41100</u>	<u>44400</u>	<u>42200</u>	<u>40700</u>
Manganese	7439-96-5	300 ST#	<u>1510</u>	<u>1630</u>	<u>1630</u>	<u>6680</u>
Mercury	7439-97-6	0.7 ST	UB	UJ	UB	UB
Nickel	7440-02-0	100 ST	9.5 J	9.9 J	13 J	13.7 J
Potassium	7440-09-7	--	4290 J	3780 J	4130 J	5630
Selenium	7782-49-2	10 ST	U	U	U	U
Silver	7440-22-4	50 ST	U	UJ	U	U
Sodium	7440-23-5	20000 ST	<u>54800 J</u>	<u>61100</u>	<u>69700</u>	<u>67400</u>
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	4.5 J	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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 27 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			13G-1 02/28/16 93' 17' DOWN	13G-1 08/09/16 93' 17' DOWN	13G-1 02/22/17 93' 17' DOWN	13G-1 08/11/17 93' 17' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	U	U	215
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	20.2 J	22 J	22.4 J	21.4 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	16.1 J	18.1 J	UB	UB
Cadmium	7440-43-9	5 ST	0.20 J	U	U	0.88 J
Calcium	7440-70-2	--	17300	18000	18200	13500
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	2.7 J	3.2 J	19.9
Cobalt	7440-48-4	--	U	U	U	U
Copper	7440-50-8	200 ST	UB	UB	3.1 J	4.8 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	U	U	UB	360
Lead	7439-92-1	25 ST	1.3 J	2.1 J	U	U
Magnesium	7439-95-4	35000 GV	6460	6910	6870	5240
Manganese	7439-96-5	300 ST#	5.5 J	4.1 J	4.5 J	10
Mercury	7439-97-6	0.7 ST	U	UB	U	UBJ
Nickel	7440-02-0	100 ST	7.2 J	7.1 J	7.8 J	2.1 J
Potassium	7440-09-7	--	976 J	826 J	1790 J	2160 J
Selenium	7782-49-2	10 ST	UJ	UJ	U	U
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	14200	14000 J	14800	11300
Thallium	7440-28-0	0.5 GV	U	UB	U	U
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	16.0 J	19.1 J	18.3 J	33.4

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

Page 28 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			13M-1 02/28/16 265' -155 DOWN	13M-1 08/09/16 265' -155 DOWN	13M-1 02/22/17 265' -155 DOWN	13M-1 08/11/17 265' -155 DOWN
Units in ug/l						
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	34.1 J	U	U	402
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	20.2 J	20.4 J	21 J	20.4 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	134	129	134	58.8
Cadmium	7440-43-9	5 ST	U	U	U	1.5 J
Calcium	7440-70-2	--	109000	103000	97300	45000
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	U	1.8 J	2.4 J
Cobalt	7440-48-4	--	UB	1 J	1.3 J	0.64 J
Copper	7440-50-8	200 ST	2.3 J	UB	U	21.5 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	132	158	258	469
Lead	7439-92-1	25 ST	3.1 J	4.1 J	1.4 J	4.3 J
Magnesium	7439-95-4	35000 GV	79100	75700	72300	9110
Manganese	7439-96-5	300 ST#	22.5	21.5	24.7	15.4
Mercury	7439-97-6	0.7 ST	U	UB	U	U
Nickel	7440-02-0	100 ST	8.5 J	9.5 J	11.3 J	4 J
Potassium	7440-09-7	--	4100 J	3930 J	4410 J	11300
Selenium	7782-49-2	10 ST	UJ	UJ	U	U
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	54500	50700 J	53000	16000
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	U	U	U	9.1 J
Zinc	7440-66-6	2000 GV	U	U	7.5 J	41.2

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

Page 29 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			14G-1A 02/24/16 220' -58 DOWN	14G-1A 08/02/16 220' -58 DOWN	14G-1A 02/23/17 220' -58 DOWN	14G-1A 08/02/17 220' -58 DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	U	U	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	32.2 J	31 J	29.6 J	54.4 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	139	125	132	122
Cadmium	7440-43-9	5 ST	U	U	U	3.5
Calcium	7440-70-2	--	42900	42400	38300	47800
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	UB
Chromium, Total	7440-47-3	50 ST	U	U	U	21.4
Cobalt	7440-48-4	--	4.3 J	3.8 J	3.8 J	3.6 J
Copper	7440-50-8	200 ST	UB	0.8 J	U	3.8 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	U	U	U	1640
Lead	7439-92-1	25 ST	1.9 J	7	U	10.4
Magnesium	7439-95-4	35000 GV	24600	24800	22000	21300
Manganese	7439-96-5	300 ST#	U	U	U	44.9
Mercury	7439-97-6	0.7 ST	U	U	U	U
Nickel	7440-02-0	100 ST	5.6 J	5.7 J	5.6 J	23.4 J
Potassium	7440-09-7	--	3870 J	2940 J	3620 J	15600
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	56900	56500 J	54900	56300
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	U	U	0.91 J	2.2 J
Zinc	7440-66-6	2000 GV	U	U	U	76.6

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

Page 30 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			14G-2 02/24/16 264' -103 DOWN	14G-2 08/02/16 264' -103 DOWN	14G-2 02/23/17 264' -103 DOWN	14G-2 08/02/17 264' -103 DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	U	U	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	52.4 J	49.2 J	50 J	52.2 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	141	130	142	129
Cadmium	7440-43-9	5 ST	U	U	U	0.85 J
Calcium	7440-70-2	--	44300	42300	41000	39300
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	UB
Chromium, Total	7440-47-3	50 ST	2.5 J	2.6 J	6.8 J	9.9 J
Cobalt	7440-48-4	--	4.6 J	4.3 J	4.9 J	4.6 J
Copper	7440-50-8	200 ST	UB	U	U	3.9 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	U	U	55.4 J	676
Lead	7439-92-1	25 ST	2.0 J	7	U	7.5
Magnesium	7439-95-4	35000 GV	25100	24500	24400	23600
Manganese	7439-96-5	300 ST#	U	U	2.5 J	20.8
Mercury	7439-97-6	0.7 ST	U	U	U	UB
Nickel	7440-02-0	100 ST	22.2 J	18.2 J	22.1 J	21.1 J
Potassium	7440-09-7	--	2150 J	1680 J	2580 J	2750 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	50900	46700 J	43700	45200
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	U	29.2

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

Page 31 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			14M-1 02/24/16 355' -194' DOWN	14M-1 08/02/16 355' -194' DOWN	14M-1 02/23/17 355' -194' DOWN	14M-1 08/02/17 355' -194' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	69.4 J	U	U	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	38.2 J	35.6 J	35.6 J	40.8 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	1150	1060	1170	997
Cadmium	7440-43-9	5 ST	U	U	U	0.17 J
Calcium	7440-70-2	--	108000	103000	100000	91000
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	UB
Chromium, Total	7440-47-3	50 ST	U	U	U	2.4 J
Cobalt	7440-48-4	--	13.1 J	13 J	13.8 J	11.1 J
Copper	7440-50-8	200 ST	5.2 J	5.5 J	5.4 J	5.3 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	614	542	664	591
Lead	7439-92-1	25 ST	2.6 J	10	1.8 J	6.9
Magnesium	7439-95-4	35000 GV	65100	62300	62000	56400
Manganese	7439-96-5	300 ST#	5750	5630	5520	4440
Mercury	7439-97-6	0.7 ST	U	0.078 J	U	U
Nickel	7440-02-0	100 ST	102	101	105	93.4
Potassium	7440-09-7	--	41400 J	36800	38000	35000
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	306000	289000 J	291000	272000
Thallium	7440-28-0	0.5 GV	U	9.8 J	U	UB
Vanadium	7440-62-2	--	U	U	1.6 J	U
Zinc	7440-66-6	2000 GV	U	U	1.6 J	19.5 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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 32 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			15G-1 08/25/14 160' 23' DOWN	15G-1 08/19/15 160' 23' DOWN	15G-1 08/09/16 160' 23' DOWN	15G-1 08/14/17 160' 23' 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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 33 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			16G-1 08/21/14 57' 20' DOWN	16G-1 08/14/15 57' 20' DOWN	16G-1 08/10/16 57' 20' DOWN	16G-1 08/10/17 57' 20' 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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 34 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			16M-1 02/28/16 240' -163 DOWN	16M-1 08/10/16 240' -163 DOWN	16M-1 02/24/17 240' -163 DOWN	16M-1 08/10/17 240' -163 DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	U	U	96.2 J
Antimony	7440-36-0	3 ST	U	U	UB	U
Arsenic	7440-38-2	25 ST	U	U	U	U
Barium	7440-39-3	1000 ST	U	U	5.5 J	7.5 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	54.6 J	56 J	59.4	67.2
Cadmium	7440-43-9	5 ST	U	U	U	UB
Calcium	7440-70-2	--	60100	56200	52000	50800
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	U	U	1.6 J
Cobalt	7440-48-4	--	UB	1.5 J	2 J	1.7 J
Copper	7440-50-8	200 ST	UB	UB	U	3 J
Cyanide	57-12-5	200 ST	U	U	UJ	U
Iron	7439-89-6	300 ST#	U	U	U	97.9
Lead	7439-92-1	25 ST	3.1 J	4.4 J	U	U
Magnesium	7439-95-4	35000 GV	37200	35100	32700	32300
Manganese	7439-96-5	300 ST#	7.7 J	7.4 J	UB	27.2
Mercury	7439-97-6	0.7 ST	U	UB	U	UBJ
Nickel	7440-02-0	100 ST	6.8 J	8.1 J	8.4 J	8 J
Potassium	7440-09-7	--	2600 J	1360 J	2360 J	3180 J
Selenium	7782-49-2	10 ST	UJ	UJ	U	U
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	40300	38200 J	38100	41100
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	U	U	UB	2.5 J
Zinc	7440-66-6	2000 GV	U	U	U	14.5 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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 35 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			18G-1 02/23/16 157' 11' DOWN	18G-1 08/03/16 157' 11' DOWN	18G-1 02/22/17 157' 11' DOWN	18G-1 08/02/17 157' 11' DOWN
Units in ug/l						
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	41 J	U	14.7 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	45.2 J	42.9 J	47.1 J	50.2 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	275	238	340	352
Cadmium	7440-43-9	5 ST	0.4 J	0.3 J	0.21 J	0.36 J
Calcium	7440-70-2	--	8890	7400	6570	6210
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	UB
Chromium, Total	7440-47-3	50 ST	U	U	U	U
Cobalt	7440-48-4	--	14.6 J	11.6 J	13.5 J	16.1 J
Copper	7440-50-8	200 ST	8.1 J	11.3 J	14.9 J	15.4 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	<u>63.1 J</u>	<u>52.4 J</u>	UB	<u>360</u>
Lead	7439-92-1	25 ST	0.92 J	5.4	2.6 J	5.2
Magnesium	7439-95-4	35000 GV	6300	5130	4820	4930
Manganese	7439-96-5	300 ST#	<u>15800</u>	<u>12000</u>	U	<u>11300</u>
Mercury	7439-97-6	0.7 ST	U	U	U	UB
Nickel	7440-02-0	100 ST	34.5 J	31 J	37.3 J	38.8 J
Potassium	7440-09-7	--	24400 J	23200	28600	30800
Selenium	7782-49-2	10 ST	UJ	U	U	U
Silver	7440-22-4	50 ST	U	2.8 J	U	U
Sodium	7440-23-5	20000 ST	<u>96500</u>	<u>97600 J</u>	<u>108000</u>	<u>109000</u>
Thallium	7440-28-0	0.5 GV	U	<u>17.8</u>	<u>14.8</u>	UB
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	U	U	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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 36 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			18G-2 02/23/16 197' -29 DOWN	18G-2 08/03/16 197' -29 DOWN	18G-2 02/22/17 197' -29 DOWN	18G-2 08/02/17 197' -29 DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	U	U	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	53.8 J	50.2 J	53.9 J	69.6 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	174	154	183	206
Cadmium	7440-43-9	5 ST	0.30 J	U	U	0.22 J
Calcium	7440-70-2	--	20700	19000	22200	23700
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	UB
Chromium, Total	7440-47-3	50 ST	U	U	1.7 J	1.7 J
Cobalt	7440-48-4	--	24.3 J	21.1 J	18 J	23.7 J
Copper	7440-50-8	200 ST	4.3 J	4.1 J	3.9 J	6 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	U	U	UB	209
Lead	7439-92-1	25 ST	1.6 J	5.8	U	5 J
Magnesium	7439-95-4	35000 GV	7630	6810	8130	8990
Manganese	7439-96-5	300 ST#	4570	5150	6610	6590
Mercury	7439-97-6	0.7 ST	U	U	U	UB
Nickel	7440-02-0	100 ST	15.8 J	12.8 J	14.2 J	15.6 J
Potassium	7440-09-7	--	10500 J	10500	10600	13500
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	98600	91400 J	88500	88900
Thallium	7440-28-0	0.5 GV	U	7.2 J	6.2 J	UB
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	U	U	7.5 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 Detected 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 B-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Page 37 of 38

			Sample ID	22M-1	22M-1	22M-1	22M-1
			Sample_date	03/07/16	08/10/16	02/23/17	08/11/17
			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
Units in ug/l							
		NYSDEC CLASS GA GROUNDWATER					
METALS	CAS Number	ST/GV					
Aluminum	7429-90-5	--	27.7 J	U	U	198 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	30.9 J	28.5 J	30.2 J	28.8 J	
Beryllium	7440-41-7	3 GV	U	U	U	U	
Boron	7440-42-8	1000 ST	43.9 J	36.2 J	39.1 J	39.5 J	
Cadmium	7440-43-9	5 ST	U	U	U	11.7	
Calcium	7440-70-2	--	15900	15200	15900	14400	
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U	
Chromium, Total	7440-47-3	50 ST	U	U	U	3.1 J	
Cobalt	7440-48-4	--	0.80 J	0.5 J	0.68 J	0.64 J	
Copper	7440-50-8	200 ST	U	UB	U	U	
Cyanide	57-12-5	200 ST	U	U	U	U	
Iron	7439-89-6	300 ST#	UJ	U	U	256	
Lead	7439-92-1	25 ST	2.4 J	1.4 J	U	1.7 J	
Magnesium	7439-95-4	35000 GV	4870	4630	4850	4370	
Manganese	7439-96-5	300 ST#	U	U	1.9 J	15.7	
Mercury	7439-97-6	0.7 ST	UB	UB	U	UBJ	
Nickel	7440-02-0	100 ST	U	U	U	19 J	
Potassium	7440-09-7	--	2550 J	910 J	1480 J	2730 J	
Selenium	7782-49-2	10 ST	U	UJ	U	U	
Silver	7440-22-4	50 ST	U	U	U	U	
Sodium	7440-23-5	20000 ST	15400 J	16000 J	16400	13000	
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	U	U	1.8 J	26.9	

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

Page 38 of 38

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			23M-1 03/02/16 240' -164' DOWN	23M-1 08/09/16 240' -164' DOWN	23M-1 03/01/17 240' -164' DOWN	23M-1 08/10/17 240' -164' DOWN
Units in ug/l						
		NYSDEC CLASS GA GROUNDWATER ST/GV				
METALS	CAS Number					
Aluminum	7429-90-5	--	U	U	U	41.2 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	U	U	5.2 J	7.6 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	78.5 J	73.7 J	79	78.5
Cadmium	7440-43-9	5 ST	U	U	U	1.1 J
Calcium	7440-70-2	--	39200	36800	38600	34800
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	--	1.2 J	1.3 J	UB	1.3 J
Copper	7440-50-8	200 ST	U	UB	U	U
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	UJ	U	21.1 J	76
Lead	7439-92-1	25 ST	4.8 J	2.6 J	5.9 J	1.4 J
Magnesium	7439-95-4	35000 GV	18900	18200	18800	17000
Manganese	7439-96-5	300 ST#	51.4	47.8	51.8	54
Mercury	7439-97-6	0.7 ST	UB	UB	UB	UJ
Nickel	7440-02-0	100 ST	U	U	2.1 J	1 J
Potassium	7440-09-7	--	1900 J	822 J	1360 J	8560
Selenium	7782-49-2	10 ST	U	UJ	U	U
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	29100 J	27700 J	27100	27900
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	U	U	UB	0.94 J
Zinc	7440-66-6	2000 GV	U	U	UB	8.4 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 Detected 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 B-3

MONITORING WELL SAMPLE RESULTS - LEACHATE INDICATORS

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

Page 1 of 39

Sample ID			GM-1D*	GM-1D*	GM-1D*	GM-1D*
Sample_date			03/01/16	04/22/16	06/29/16	08/03/16
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
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	475 D	500 D	451 D	470 D
Biochemical Oxygen Demand (BOD)	BOD5	---	U	7	U	U
Bromide	24959-67-9	2 GV	1.68 J	1.53	1.63	1.35
Chloride (as Cl)	16887-00-6	250 ST	246 D	193 D	437 D	198 D
Cod - Chemical Oxygen Demand	COD	---	17.3 J	21.9	75.9	39.6
Color	COLOR	---	5.00	10	5	20
Hardness (as CaCO ₃)	HARD	---	410 D	460 D	400 D	460 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	<u>5.89 D</u>	<u>5.48 D</u>	<u>6.21 D</u>	<u>6.29 D</u>
Nitrogen, Kjeldahl, Total	KN	---	5.92	4.99 D	3.97	5.33 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	U	U	0.44	U
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	<u>0.0065</u>	U	U
Sulfate (as SO ₄)	14808-79-8	250 ST	47.9	38.8	60.3 D	38
Total Dissolved Solids	E-10173	---	788	692	808	399
Total Organic Carbon	TOC	---	7.70	7.9	9.7	9.7

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

Page 2 of 39

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in mg/l Gradient relative to MSW			GM-1D* 10/24/16 399' -247' DOWN	GM-1D* 04/05/17 399' -247' DOWN	GM-1D* 06/09/17 399' -247' DOWN	GM-1D* 08/04/17 399' -247' DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	241	272	560	579
Biochemical Oxygen Demand (BOD)	BOD5	---	4.0	1.0 J	1.0 J	UB
Bromide	24959-67-9	2 GV	U	0.16 J	1.2	1.5
Chloride (as Cl)	16887-00-6	250 ST	80.6	85.6	171	227
Cod - Chemical Oxygen Demand	COD	---	17.2	23.4	29.6	42.1
Color	COLOR	---	5	U	U	U
Hardness (as CaCO ₃)	HARD	---	270	260	470	450
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	<u>6.5</u>	0.96	<u>4.3</u>	<u>4.9 J</u>
Nitrogen, Kjeldahl, Total	KN	---	5.6	0.68	26.6	7.8 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	3.1	3.6	0.68	U
Nitrogen, Nitrite	14797-65-0	1 ST	0.16	1.7	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	<u>0.011</u>	<u>0.033</u>	<u>0.0025 J</u>	UB
Sulfate (as SO ₄)	14808-79-8	250 ST	25.9	33.5	31.5	36.1
Total Dissolved Solids	E-10173	---	443	440	748	842
Total Organic Carbon	TOC	---	4.5	4.4	9.2	9.6

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

Page 3 of 39

			Sample ID	GM-1D*	GM-1D*
			Sample_date	10/27/17	12/18/17
			Depth of Well BGS	399'	399'
			Depth to bottom screen, relative to MSL	-247'	-247'
Units in mg/l			Gradient relative to MSW	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV			
Alkalinity, Total (as CaCO ₃)	ALK	---	446	401	
Biochemical Oxygen Demand (BOD)	BOD5	---	1.0 J	1 J	
Bromide	24959-67-9	2 GV	1.4	1.5	
Chloride (as Cl)	16887-00-6	250 ST	225	240	
Cod - Chemical Oxygen Demand	COD	---	45.7	36.8	
Color	COLOR	---	10.0	5	
Hardness (as CaCO ₃)	HARD	---	480	400	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	<u>5.0</u>	<u>4.9</u>	
Nitrogen, Kjeldahl, Total	KN	---	6.0	6.2	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	U	0.015 J	
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	<u>0.0029 J</u>	<u>0.0043 J</u>	
Sulfate (as SO ₄)	14808-79-8	250 ST	34.7	24.9	
Total Dissolved Solids	E-10173	---	912	780	
Total Organic Carbon	TOC	---	10.4	10.4	

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

Page 4 of 39

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			GM-1I 03/07/16 285' -138' DOWN	GM-1I 08/03/16 285' -138' DOWN	GM-1I 03/01/17 285' -138' DOWN	GM-1I 08/14/17 285' -138' DOWN
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	181 D	190 D	222 J	261
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	1 J
Bromide	24959-67-9	2 GV	U	U	0.21 J	0.25 J
Chloride (as Cl)	16887-00-6	250 ST	61.8 D	49.5 D	54	72.7
Cod - Chemical Oxygen Demand	COD	---	UJ	11.8	UB	19.2
Color	COLOR	---	U	10	5	
Hardness (as CaCO ₃)	HARD	---	196 D	200 D	204	193
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.10	U	UB	0.088 J
Nitrogen, Kjeldahl, Total	KN	---	U	U	U	UB
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	5.86 D	6.22 D	6.9	5.9
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	UB
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	U	0.0016 J
Sulfate (as SO ₄)	14808-79-8	250 ST	30.3	23.9	31.2	31.1
Total Dissolved Solids	E-10173	---	344	702	361	365
Total Organic Carbon	TOC	---	1.20	1.8	U	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
-- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 5 of 39

			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
Units in mg/l							
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO ₃)	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		
Hardness (as CaCO ₃)	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 SO ₄)	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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 6 of 39

			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'
Units in mg/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
		NYSDEC CLASS					
		GA					
		GROUNDWATER					
Chemical Name	CAS Number	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		
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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 7 of 39

			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
Units in mg/l							
		NYSDEC CLASS					
		GA					
		GROUNDWATER					
Chemical Name	CAS Number	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		
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
-- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 8 of 39

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			GM-2S 09/03/14 149' 12' DOWN	GM-2S 09/01/15 149' 12' DOWN	GM-2S 08/08/16 149' 12' DOWN	GM-2S 08/14/17 149' 12' DOWN
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	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 CaCO ₃)	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	<u>0.0077</u>	UB
Sulfate (as SO ₄)	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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 9 of 39

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			4G-1 02/29/16 164' 2' DOWN	4G-1 08/03/16 164' 2' DOWN	4G-1 02/24/17 164' 2' DOWN	4G-1 08/11/17 164' 2' DOWN
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	178 D	161 D	160	154 J
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB
Bromide	24959-67-9	2 GV	U	U	0.25 J	0.34 J
Chloride (as Cl)	16887-00-6	250 ST	88.0 D	63.8 D	70.4	86.6
Cod - Chemical Oxygen Demand	COD	---	14.4	18.2	33.8	31.7
Color	COLOR	---		20	25	20
Hardness (as CaCO ₃)	HARD	---	58	44 D	56	60 J
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	<u>14.7 D</u>	<u>10.6 D</u>	<u>5.5</u>	<u>3.5</u>
Nitrogen, Kjeldahl, Total	KN	---	11.2 D	7.45 D	6.3 J	5
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	U	U	UB	0.98 J
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	0.0076 J	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	<u>0.0026 J</u>	UB
Sulfate (as SO ₄)	14808-79-8	250 ST	25.6	15.2	15	18.7
Total Dissolved Solids	E-10173	---	320	277	315	374
Total Organic Carbon	TOC	---	4.27	4.1	3.2	4.4 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
-- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 10 of 39

Sample ID			4G-2	4G-2	4G-2	4G-2
Sample_date			03/02/16	08/03/16	02/24/17	08/11/17
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
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---	164 D	181 D	193	172 J
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB
Bromide	24959-67-9	2 GV	U	U	0.15 J	0.11 J
Chloride (as Cl)	16887-00-6	250 ST	72.3 D	65.3 D	80.2	88.9
Cod - Chemical Oxygen Demand	COD	---	UJ	13.9	UB	40
Color	COLOR	---	10.0	20	10	5
Hardness (as CaCO3)	HARD	---	92 D	96 D	128	136 J
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.47	UB	0.5	UB
Nitrogen, Kjeldahl, Total	KN	---	0.37	UB	U	0.88
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	0.62 D	1.32 D	6.2	UJ
Nitrogen, Nitrite	14797-65-0	1 ST	0.13	0.11	0.18 J	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	U	UB
Sulfate (as SO4)	14808-79-8	250 ST	21.5	15.1	24.8	48.5
Total Dissolved Solids	E-10173	---	303	321	389	413
Total Organic Carbon	TOC	---	1.20	2.2	U	2.1 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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 11 of 39

Sample ID			4M-1	4M-1	4M-1	4M-1
Sample_date			03/02/16	08/03/16	02/24/17	08/11/17
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
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	1280 D	1230 D	1420	1260 J
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	17.4
Bromide	24959-67-9	2 GV	<u>5.69</u> <u>DJ</u>	<u>4.15</u>	<u>4.1</u>	<u>4.7</u>
Chloride (as Cl)	16887-00-6	250 ST	<u>543</u> <u>D</u>	<u>442</u> <u>D</u>	<u>434</u>	<u>451</u>
Cod - Chemical Oxygen Demand	COD	---	218 DJ	313	275	254
Color	COLOR	---	150 D	30	150	200
Hardness (as CaCO ₃)	HARD	---	348 D	400 D	350	280 J
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	<u>189</u> <u>D</u>	<u>194</u> <u>D</u>	<u>122</u>	<u>122</u>
Nitrogen, Kjeldahl, Total	KN	---	162 D	167 D	172 J	162
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	U	U	U	3 J
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	0.0078 J	0.02 J
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	<u>0.0225</u>	<u>0.0167</u>	<u>0.035</u>	<u>0.0267</u>
Sulfate (as SO ₄)	14808-79-8	250 ST	9.08	6.46	7.4	12.6
Total Dissolved Solids	E-10173	---	1510	1400	1580	1510
Total Organic Carbon	TOC	---	62.1	54	49	65.2 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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 12 of 39

Sample ID			4M-2	4M-2	4M-2	4M-2
Sample_date			03/01/16	08/03/16	02/24/17	08/11/17
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
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	222 D	280 D	278	24.8 J
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	UB
Bromide	24959-67-9	2 GV	<u>2.07 J</u>	1.73	1.9	<u>2.3</u>
Chloride (as Cl)	16887-00-6	250 ST	<u>279 D</u>	237 D	239	<u>286</u>
Cod - Chemical Oxygen Demand	COD	---	13.5 J	26.8	46.3	48.4
Color	COLOR	---	5.00	5	20	5
Hardness (as CaCO ₃)	HARD	---	252 D	268 D	430	280 J
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	<u>2.76</u>	<u>4.88 D</u>	<u>4</u>	<u>5.6</u>
Nitrogen, Kjeldahl, Total	KN	---	2.61	5.94 D	4.3 J	6.5
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	U	U	U	3.3 J
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	0.2
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	<u>0.0015 J</u>	UB
Sulfate (as SO ₄)	14808-79-8	250 ST	62.8 D	48.4	48.9	59.1
Total Dissolved Solids	E-10173	---	652	696	688	736
Total Organic Carbon	TOC	---	6.00	8.9	7.8	9.1 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
 --- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 13 of 39

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in mg/l Gradient relative to MSW			6G-1 03/04/16 147' 32' DOWN	6G-1 08/11/16 147' 32' DOWN	6G-1 03/02/17 147' 32' DOWN	6G-1 08/09/17 147' 32' DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	71.1	103 D	123 J	92.8 J
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB
Bromide	24959-67-9	2 GV	U	U	0.043 J	0.039 J
Chloride (as Cl)	16887-00-6	250 ST	29.7	35.5	41.5	39
Cod - Chemical Oxygen Demand	COD	---	UJ	U	UB	17.2
Color	COLOR	---	U	U	5	U
Hardness (as CaCO ₃)	HARD	---	56	68 D	72	56
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	U	0.16	UB	UBJ
Nitrogen, Kjeldahl, Total	KN	---	U	0.14	0.54 J	UBJ
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	3.19 D	2.38 D	1.5	1.2
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	UB	UB
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	U	U
Sulfate (as SO ₄)	14808-79-8	250 ST	22.6	18.9	16.4	14
Total Dissolved Solids	E-10173	---	164	209	229	190
Total Organic Carbon	TOC	---	U	1.2 J	U	0.64 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
-- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 14 of 39

Sample ID			6G-2	6G-2	6G-2	6G-2
Sample_date			03/04/16	08/11/16	03/02/17	08/09/17
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
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	145 D	158 D	186 J	177 J
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB
Bromide	24959-67-9	2 GV	U	U	0.06 J	0.057 J
Chloride (as Cl)	16887-00-6	250 ST	69.6 D	58 D	53.7	55.9
Cod - Chemical Oxygen Demand	COD	---	UJ	U	UB	17.2
Color	COLOR	---	U	U	5	U
Hardness (as CaCO ₃)	HARD	---	75	78 D	76	104
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.11	0.14	UB	UBJ
Nitrogen, Kjeldahl, Total	KN	---	U	U	U	UBJ
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	1.15 D	1.53 D	1.4	1
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	U	UB
Sulfate (as SO ₄)	14808-79-8	250 ST	26.6	25.9	20.2	20
Total Dissolved Solids	E-10173	---	293	282	306	286
Total Organic Carbon	TOC	---	1.30	2.1 J	U	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
 -- 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 B-3
 Blydenburgh Road Landfill Complex
 Post Closure Groundwater Monitoring Program
 Monitoring Well Sample Results
 Leachate Indicators

Page 15 of 39

			Sample ID	6G-3	6G-3	6G-3	6G-3
			Sample_date	03/04/16	08/11/16	03/02/17	08/09/17
			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
Units in mg/l							
		NYSDEC CLASS GA GROUNDWATER ST/GV					
Chemical Name	CAS Number						
Alkalinity, Total (as CaCO3)	ALK	---	224 D	222 D	255 J	207 J	
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB		
Bromide	24959-67-9	2 GV	U	U	0.32 J	0.29 J	
Chloride (as Cl)	16887-00-6	250 ST	57.7 D	46.1 D	48.4	48.8	
Cod - Chemical Oxygen Demand	COD	---	16.3 J	12.7	UB	33.8	
Color	COLOR	---	10.0	10	10	10	
Hardness (as CaCO3)	HARD	---	172 D	220 D	170	196	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	<u>9.24 D</u>	<u>9.33 D</u>	<u>7.7</u>	<u>6.4 J</u>	
Nitrogen, Kjeldahl, Total	KN	---	7.79 D	7.55 D	8.9 J	9.4 J	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	U	U	U	0.21	
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	UB	
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	<u>0.0026 J</u>	UB	
Sulfate (as SO4)	14808-79-8	250 ST	24.4	20.5	21.1	21.3	
Total Dissolved Solids	E-10173	---	316	325	308	330	
Total Organic Carbon	TOC	---	4.30	5.5 J	4.9	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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 16 of 39

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			6M-1 08/27/14 545' -368' DOWN	6M-1 09/02/15 545' -368' DOWN	6M-1 08/11/16 545' -368' DOWN	6M-1 08/09/17 545' -368' DOWN
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	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 CaCO ₃)	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 SO ₄)	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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 17 of 39

			Sample ID	7M-1	7M-1	7M-1	7M-1
			Sample_date	03/02/16	08/10/16	02/28/17	08/10/17
			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
Units in mg/l							
		NYSDEC CLASS					
		GA					
		GROUNDWATER					
Chemical Name	CAS Number	ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---	31.6	42.2 D	49.6 J	39.4 J	
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB	
Bromide	24959-67-9	2 GV	U	U	0.043 J	0.037 J	
Chloride (as Cl)	16887-00-6	250 ST	33.9	28.8	23.8	29.2	
Cod - Chemical Oxygen Demand	COD	---	UJ	U	UB	U	
Color	COLOR	---	U	U	5	10	
Hardness (as CaCO3)	HARD	---	60 D	80 D	78	68 J	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.36	0.37	0.31	UB	
Nitrogen, Kjeldahl, Total	KN	---	2.52	U	U	UJ	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	0.49	2.33 D	2.4	2.4 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	30.9	25.3	24.9	28.6	
Total Dissolved Solids	E-10173	---	127	137	169	148	
Total Organic Carbon	TOC	---	U	1.2 J	U	0.89 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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 18 of 39

Sample ID			8G-1	8G-1	8G-1	8G-1
Sample_date			02/23/16	08/02/16	02/22/17	08/14/17
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
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	17.7	15.5	24.6	91 J
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB
Bromide	24959-67-9	2 GV	U	U	0.13 J	0.11 J
Chloride (as Cl)	16887-00-6	250 ST	214 D	207 D	581	360
Cod - Chemical Oxygen Demand	COD	---	U	U	UB	38
Color	COLOR	---	U	5	5	20
Hardness (as CaCO ₃)	HARD	---	136 D	200 D	310	213 J
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	U	UB	UB	UB
Nitrogen, Kjeldahl, Total	KN	---	U	U	U	UB
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	2.45 D	2.58 D	2.1	2.2
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	UB
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	UB	U	U	UB
Sulfate (as SO ₄)	14808-79-8	250 ST	21.6	11.5	28.3	18.9
Total Dissolved Solids	E-10173	---	428	612	1210	825
Total Organic Carbon	TOC	---	U	UJ	U	2.9 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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 19 of 39

			Sample ID	8M-1	8M-1	8M-1	8M-1
			Sample_date	02/23/16	08/02/16	02/22/17	08/14/17
			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
Units in mg/l							
		NYSDEC CLASS					
		GA					
		GROUNDWATER					
Chemical Name	CAS Number	ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---	303 D	330 D	271	248 J	
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	U	
Bromide	24959-67-9	2 GV	0.63	0.58	0.41 J	0.27 J	
Chloride (as Cl)	16887-00-6	250 ST	107 D	101 D	208	76.9	
Cod - Chemical Oxygen Demand	COD	---	14.4	18.2	UB	44.2	
Color	COLOR	---	10.0	15	10	80	
Hardness (as CaCO3)	HARD	---	272 D	264 D	290	207 J	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	10.4 D	11.2 D	7.3	5.3	
Nitrogen, Kjeldahl, Total	KN	---	8.63 DJ	7.99 D	6.7 J	6.4 J	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	4.70 D	4.73 D	5.4	0.39	
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	0.014 J	0.022 J	
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	0.0075	0.0021 J	UB	
Sulfate (as SO4)	14808-79-8	250 ST	31.7	23.8	23.4	40.6	
Total Dissolved Solids	E-10173	---	512	500	643	453	
Total Organic Carbon	TOC	---	5.50	6.4 J	4.8	8.8 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
--- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 20 of 39

			Sample ID	8M-2	8M-2	8M-2	8M-2
			Sample_date	02/23/16	08/02/16	02/22/17	08/14/17
			Depth of Well BGS	383'	383'	383'	383'
			Depth to bottom screen, relative to MSL	-248'	-248'	-248'	-248'
Units in mg/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
		NYSDEC CLASS					
		GA					
		GROUNDWATER					
Chemical Name	CAS Number	ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---	45.4	43.2	46.8	50.2	
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	1 J	
Bromide	24959-67-9	2 GV	U	U	0.089 J	0.074 J	
Chloride (as Cl)	16887-00-6	250 ST	20.3	18.7	25.5	48.6	
Cod - Chemical Oxygen Demand	COD	---	U	U	UB	27.6	
Color	COLOR	---	5.00	5	5		
Hardness (as CaCO3)	HARD	---	54	50	52	56	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.46	UB	0.34	0.18	
Nitrogen, Kjeldahl, Total	KN	---	UBJ	UB	0.14 J	0.86 J	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	0.95	0.88 D	0.78	1.1	
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	UB	
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	0.0021 J	0.0087	
Sulfate (as SO4)	14808-79-8	250 ST	5.76	U	4.7 J	6.6	
Total Dissolved Solids	E-10173	---	89	125 J	92	126	
Total Organic Carbon	TOC	---	U	UJ	U	0.96 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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 21 of 39

			Sample ID	9G-1	9G-1	9G-1	9G-1
			Sample_date	08/25/14	08/27/15	08/09/16	08/08/17
			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
Units in mg/l							
		NYSDEC CLASS GA GROUNDWATER ST/GV					
Chemical Name	CAS Number						
Alkalinity, Total (as CaCO3)	ALK	---	3.8	3.5 J	3.4	21.8 J	
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	UB	
Bromide	24959-67-9	2 GV	U	U	U	U	
Chloride (as Cl)	16887-00-6	250 ST	3.74	13.9	26.1	5.6	
Cod - Chemical Oxygen Demand	COD	---	10.8	U	U	40	
Color	COLOR	---	U	U	5	U	
Hardness (as CaCO3)	HARD	---	20	20 D	16	22.7	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	U	U	U	UBJ	
Nitrogen, Kjeldahl, Total	KN	---	U	U	0.11	UBJ	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	0.27	0.14 J	0.11	0.19	
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	U	U	U	3.8 J	
Total Dissolved Solids	E-10173	---	19	U	63	45	
Total Organic Carbon	TOC	---	U	U	U	1.1	

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

Page 22 of 39

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			10G-1 08/21/14 69' 20' DOWN	10G-1 08/14/15 69' 20' DOWN	10G-1 08/10/16 69' 20' DOWN	10G-1 08/10/17 69' 20' DOWN
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	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 CaCO ₃)	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 SO ₄)	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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 23 of 39

			Sample ID	10M-1	10M-1	10M-1	10M-1
			Sample_date	02/28/16	08/10/16	02/24/17	08/10/17
			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
Units in mg/l							
		NYSDEC CLASS GA GROUNDWATER ST/GV					
Chemical Name	CAS Number						
Alkalinity, Total (as CaCO3)	ALK	---	331 D	313 D	304		92.4 J
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U		U
Bromide	24959-67-9	2 GV	U	U	0.33 J		0.064 J
Chloride (as Cl)	16887-00-6	250 ST	75.9 D	56.2 D	68.4		26
Cod - Chemical Oxygen Demand	COD	---	U	U	UB		10.9
Color	COLOR	---	5.00	5	5		40
Hardness (as CaCO3)	HARD	---	420 D	400 D	400		72 J
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.32	0.46	0.43		UB
Nitrogen, Kjeldahl, Total	KN	---	U	U	U		1 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	3.31 D	3.26 D	0.75		1.3 J
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U		U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	UB	U	<u>0.0021 J</u>		UB
Sulfate (as SO4)	14808-79-8	250 ST	28.3	25.8	24.5		6.1
Total Dissolved Solids	E-10173	---	428	505	460		149
Total Organic Carbon	TOC	---	2.30 J	2.5 J	1.8		3.4

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

Page 24 of 39

Sample ID			11G-1	11G-1	11G-1	11G-1
Sample_date			03/07/16	08/09/16	02/23/17	08/03/17
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
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	724 D	731 D	672	700
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	6
Bromide	24959-67-9	2 GV	1.90 J	1.71 J	1.6	0.055 J
Chloride (as Cl)	16887-00-6	250 ST	244 D	U	219	16.4
Cod - Chemical Oxygen Demand	COD	---	123 J	135	157	150
Color	COLOR	---	150 D	80 D	125	100
Hardness (as CaCO ₃)	HARD	---	31	120 D	40	44
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	<u>142 D</u>	<u>156 D</u>	<u>105</u>	<u>119 J</u>
Nitrogen, Kjeldahl, Total	KN	---	141 D	149 D	118 J	146 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	U	U	0.13	0.61
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	0.021 J	UB
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	<u>0.0446</u>	<u>0.0195</u>	<u>0.0386</u>	<u>0.0172</u>
Sulfate (as SO ₄)	14808-79-8	250 ST	U	U	2 J	13.1
Total Dissolved Solids	E-10173	---	770	864	764	812
Total Organic Carbon	TOC	---	28.8	33.2	34.4	44.1

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

Page 25 of 39

			Sample ID	11G-2	11G-2	11G-2	11G-2
			Sample_date	03/07/16	08/09/16	02/23/17	08/03/17
			Depth of Well BGS	220'	220'	220'	220'
			Depth to bottom screen, relative to MSL	-51	-51	-51	-51
Units in mg/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
		NYSDEC CLASS					
		GA					
		GROUNDWATER					
Chemical Name	CAS Number	ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---	1090 D	1000 D	1200	1350	
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB		
Bromide	24959-67-9	2 GV	<u>4.44 J</u>	<u>4.15 J</u>	<u>3.8</u>	<u>3.9</u>	
Chloride (as Cl)	16887-00-6	250 ST	<u>475 D</u>	<u>470 D</u>	<u>386</u>	<u>437</u>	
Cod - Chemical Oxygen Demand	COD	---	145 DJ	226	248	217	
Color	COLOR	---	150 D	100	150	100	
Hardness (as CaCO3)	HARD	---	188 D	156 D	144	120	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	<u>169 D</u>	<u>188 D</u>	<u>132</u>	<u>157 J</u>	
Nitrogen, Kjeldahl, Total	KN	---	152 D	165 D	169 J	227 J	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	U	U	U	0.42	
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	0.0058 J	UB	
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	<u>0.0243</u>	U	UB	
Sulfate (as SO4)	14808-79-8	250 ST	U	U	3.3 J	4.1 J	
Total Dissolved Solids	E-10173	---	1200	1510	1220	1360	
Total Organic Carbon	TOC	---	30.3	43.4	44.6	59	

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

Page 26 of 39

			Sample ID 11M-1	Sample ID 11M-1	Sample ID 11M-1	Sample ID 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
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	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 CaCO ₃)	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 SO ₄)	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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 27 of 39

			Sample ID	12M-1	12M-1	12M-1	12M-1
			Sample_date	03/04/16	08/11/16	03/02/17	08/09/17
			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
Units in mg/l							
		NYSDEC CLASS					
		GA					
		GROUNDWATER					
Chemical Name	CAS Number	ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---	320 D	387 D	420 J	320 J	
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB	
Bromide	24959-67-9	2 GV	0.57 J	U	0.62	0.58	
Chloride (as Cl)	16887-00-6	250 ST	82.0 D	77.4 D	78.8	81.6	
Cod - Chemical Oxygen Demand	COD	---	UJ	14.8	UB	31.7	
Color	COLOR	---	20.0	U	10	U	
Hardness (as CaCO3)	HARD	---	316 D	350 D	320	340	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.93	1.02	1.6	UBJ	
Nitrogen, Kjeldahl, Total	KN	---	1.14	1	2.6 J	1.6 J	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	0.35	0.21	0.15	1.1	
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	UB	
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	0.0076	0.0041 J	UB	
Sulfate (as SO4)	14808-79-8	250 ST	42.1	32.6	37	36.6	
Total Dissolved Solids	E-10173	---	508	474	548	521	
Total Organic Carbon	TOC	---	4.20	6 J	4.7	4.6	

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

Page 28 of 39

			Sample ID	13G-1	13G-1	13G-1	13G-1
			Sample_date	02/28/16	08/09/16	02/22/17	08/11/17
			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
Units in mg/l							
		NYSDEC CLASS GA GROUNDWATER ST/GV					
Chemical Name	CAS Number						
Alkalinity, Total (as CaCO3)	ALK	---	18.0	17.7	20.8	15.4 J	
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB	
Bromide	24959-67-9	2 GV	U	U	0.12 J	0.077 J	
Chloride (as Cl)	16887-00-6	250 ST	43.7	45.7	44.4	35.5	
Cod - Chemical Oxygen Demand	COD	---	U	63.5	UB	13	
Color	COLOR	---	U	5	5	10	
Hardness (as CaCO3)	HARD	---	60 D	64 D	68	54 J	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	U	0.14	UB	UB	
Nitrogen, Kjeldahl, Total	KN	---	U	U	U	UB	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	1.88 D	1.9 D	2	0.2	
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U	
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	UB	U	U	UB	
Sulfate (as SO4)	14808-79-8	250 ST	30.7	30.7	26.4	24.3	
Total Dissolved Solids	E-10173	---	109	167	159	150	
Total Organic Carbon	TOC	---	UJ	U	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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 29 of 39

			Sample ID	13M-1	13M-1	13M-1	13M-1
			Sample_date	02/28/16	08/09/16	02/22/17	08/11/17
			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
Units in mg/l							
		NYSDEC CLASS					
		GA					
		GROUNDWATER					
Chemical Name	CAS Number	ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---	502 D	518 D	507	131 J	
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB	
Bromide	24959-67-9	2 GV	0.86	0.79 J	0.74	U	
Chloride (as Cl)	16887-00-6	250 ST	112 D	110 D	104	21	
Cod - Chemical Oxygen Demand	COD	---	11.6	14.8	UB	132	
Color	COLOR	---	5.00	10	10	500	
Hardness (as CaCO3)	HARD	---	520 D	570 D	560	140 J	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	1.80	2	1.5	UB	
Nitrogen, Kjeldahl, Total	KN	---	1.78 J	1.89	2 J	4.4	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	U	U	U	0.3	
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	0.37	
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	UB	0.005	U	0.0184	
Sulfate (as SO4)	14808-79-8	250 ST	17.9	17.4	15.5	11	
Total Dissolved Solids	E-10173	---	580	690	698	305	
Total Organic Carbon	TOC	---	5.60 J	6.6	7.4	40.7 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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 30 of 39

			Sample ID	14G-1A	14G-1A	14G-1A	14G-1A
			Sample_date	02/24/16	08/02/16	02/23/17	08/02/17
			Depth of Well BGS	220'	220'	220'	220'
			Depth to bottom screen, relative to MSL	-58	-58	-58	-58
Units in mg/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
		NYSDEC CLASS					
		GA					
Chemical Name	CAS Number	GROUNDWATER					
		ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---	193 D	204 D	184	498	
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB	
Bromide	24959-67-9	2 GV	U	U	0.32 J	0.19 J	
Chloride (as Cl)	16887-00-6	250 ST	61.5 D	62.3 D	67.3	58.2	
Cod - Chemical Oxygen Demand	COD	---	U	U	UB	38	
Color	COLOR	---	U	5	5		
Hardness (as CaCO3)	HARD	---	176 D	192 D	200	150	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	U	U	UB	UB	
Nitrogen, Kjeldahl, Total	KN	---	U	U	U	UBJ	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	6.45 D	6.04 D	6	5.7	
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	UJ	
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	UB	U	0.0454	UB	
Sulfate (as SO4)	14808-79-8	250 ST	34.0	24.7	25.2	24.9	
Total Dissolved Solids	E-10173	---	351	392	337	364	
Total Organic Carbon	TOC	---	1.70 J	2 J	1	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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 31 of 39

			Sample ID	14G-2	14G-2	14G-2	14G-2
			Sample_date	02/24/16	08/02/16	02/23/17	08/02/17
			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
Units in mg/l							
		NYSDEC CLASS GA GROUNDWATER ST/GV					
Chemical Name	CAS Number						
Alkalinity, Total (as CaCO3)	ALK	---	330 D	188 D	182	263	
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB	
Bromide	24959-67-9	2 GV	U	U	0.17 J	0.14 J	
Chloride (as Cl)	16887-00-6	250 ST	52.4 D	47.9 D	48	48.3	
Cod - Chemical Oxygen Demand	COD	---	U	U	UB	23.4	
Color	COLOR	---	U	5	5		
Hardness (as CaCO3)	HARD	---	188 D	208 D	210	190	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	U	UB	0.32	UB	
Nitrogen, Kjeldahl, Total	KN	---	U	U	U	UBJ	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	6.71 D	6.47 D	6.1	5.9	
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	UJ	
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	UB	U	U	UB	
Sulfate (as SO4)	14808-79-8	250 ST	29.8	22.5	24.5	24.2	
Total Dissolved Solids	E-10173	---	314	332	330	316	
Total Organic Carbon	TOC	---	1.30 J	1.7 J	U	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
-- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 32 of 39

Sample ID			14M-1	14M-1	14M-1	14M-1
Sample_date			02/24/16	08/02/16	02/23/17	08/02/17
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
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	860 D	846 D	836	703
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB
Bromide	24959-67-9	2 GV	<u>3.87</u>	<u>3.12</u>	<u>3.3</u>	2.8
Chloride (as Cl)	16887-00-6	250 ST	<u>385 D</u>	<u>348 D</u>	<u>363</u>	<u>329</u>
Cod - Chemical Oxygen Demand	COD	---	84.7	134	136	117
Color	COLOR	---	40.0	50	40	
Hardness (as CaCO ₃)	HARD	---	500 D	700 D	500	360
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	<u>61.9 D</u>	<u>65.8 D</u>	<u>39.8</u>	<u>45</u>
Nitrogen, Kjeldahl, Total	KN	---	57.1 DJ	45.7 D	57.3 J	56 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	U	U	0.0071 J	2.4
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	UBJ
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	UB	<u>0.0068</u>	<u>0.0172</u>	<u>0.0119</u>
Sulfate (as SO ₄)	14808-79-8	250 ST	19.6	15.5	16.8	16.9
Total Dissolved Solids	E-10173	---	1210	1400	1330	1130
Total Organic Carbon	TOC	---	19.9 J	26.2 J	25.3	28.2

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

Page 33 of 39

			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
Units in mg/l							
		NYSDEC CLASS GA GROUNDWATER ST/GV					
Chemical Name	CAS Number						
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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 34 of 39

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
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	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 CaCO ₃)	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 SO ₄)	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
 -- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Page 35 of 39

			Sample ID	16M-1	16M-1	16M-1	16M-1
			Sample_date	02/28/16	08/10/16	02/24/17	08/10/17
			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
Units in mg/l							
		NYSDEC CLASS					
		GA					
		GROUNDWATER					
Chemical Name	CAS Number	ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---	224 D	225 D	228	256 J	
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	UB	
Bromide	24959-67-9	2 GV	U	U	0.26 J	0.29 J	
Chloride (as Cl)	16887-00-6	250 ST	71.6 D	58.5 D	58.9	71	
Cod - Chemical Oxygen Demand	COD	---	U	65.6	UB	6.8 J	
Color	COLOR	---	U	5	U	5	
Hardness (as CaCO3)	HARD	---	230 D	280 D	280	187 J	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.14	0.16	UB	UB	
Nitrogen, Kjeldahl, Total	KN	---	U	U	U	UBJ	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	5.36 D	4.22 D	4.9	4.2 J	
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	UB	U	
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	UB	U	U	UB	
Sulfate (as SO4)	14808-79-8	250 ST	31.9	U	26.7	30.2	
Total Dissolved Solids	E-10173	---	342	403	365	399	
Total Organic Carbon	TOC	---	1.30 J	1.9 J	U	2.1	

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

Page 36 of 39

Sample ID			18G-1	18G-1	18G-1	18G-1
Sample_date			02/23/16	08/03/16	02/22/17	08/02/17
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
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---	234 D	244 D	269	473
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB
Bromide	24959-67-9	2 GV	U	U	0.36 J	0.37 J
Chloride (as Cl)	16887-00-6	250 ST	86.9 D	87.8 D	103	104
Cod - Chemical Oxygen Demand	COD	---	20.1	39.6	54.6	65
Color	COLOR	---	10.0	15	20	
Hardness (as CaCO3)	HARD	---	61	84 D	60	76
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	<u>23.2 D</u>	<u>34.8 D</u>	<u>27.8</u>	<u>42.2 J</u>
Nitrogen, Kjeldahl, Total	KN	---	24.1 DJ	29.2 D	38.3 J	51.5 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	U	0.44	1.6	0.48
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	UJ
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	UB	U	<u>0.0036 J</u>	0.0092
Sulfate (as SO4)	14808-79-8	250 ST	28.7	18.8	17.7	15.2
Total Dissolved Solids	E-10173	---	348	348	382	394
Total Organic Carbon	TOC	---	4.70	5.5	7	8.5

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

Page 37 of 39

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in mg/l Gradient relative to MSW			18G-2 02/23/16 197' -29 DOWN	18G-2 08/03/16 197' -29 DOWN	18G-2 02/22/17 197' -29 DOWN	18G-2 08/02/17 197' -29 DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	148 D	154 D	163	258
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB
Bromide	24959-67-9	2 GV	U	U	0.25 J	0.2 J
Chloride (as Cl)	16887-00-6	250 ST	76.8 D	75.6 D	84.8	82.4
Cod - Chemical Oxygen Demand	COD	---	U	U	27.6	25.5
Color	COLOR	---	U	5	5	
Hardness (as CaCO ₃)	HARD	---	82 D	84 D	96	104
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	6.17 D	8.29 D	4.5	3.9
Nitrogen, Kjeldahl, Total	KN	---	3.95 DJ	8.12 D	3 J	2.9 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	7.59 D	7.59 D	4.7	6.6
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	0.014 J	UBJ
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	UB	U	U	UB
Sulfate (as SO ₄)	14808-79-8	250 ST	31.0	21	22.4	22.5
Total Dissolved Solids	E-10173	---	343	275	354	357
Total Organic Carbon	TOC	---	1.60	2.5	3	3.1

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

Page 38 of 39

			Sample ID	22M-1	22M-1	22M-1	22M-1
			Sample_date	03/07/16	08/10/16	02/23/17	08/11/17
			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
Units in mg/l							
		NYSDEC CLASS GA GROUNDWATER ST/GV					
Chemical Name	CAS Number						
Alkalinity, Total (as CaCO3)	ALK	---	29.4	29.8 D	33.4	97 J	
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	UB	UB	
Bromide	24959-67-9	2 GV	U	U	0.058 J	0.046 J	
Chloride (as Cl)	16887-00-6	250 ST	33.2	26.3	28.8	30.1	
Cod - Chemical Oxygen Demand	COD	---	UJ	U	UB	17.2	
Color	COLOR	---	U	U	U	5	
Hardness (as CaCO3)	HARD	---	53	520 D	54	56 J	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.85	0.85	0.79	UB	
Nitrogen, Kjeldahl, Total	KN	---	2.59	0.57	0.32 J	0.7	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	0.37	1.92 D	1.9	0.062	
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U	
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	0.0052	UB	
Sulfate (as SO4)	14808-79-8	250 ST	25.3	19.5	20.7	21.5	
Total Dissolved Solids	E-10173	---	134	128	124	117	
Total Organic Carbon	TOC	---	U	1.1 J	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
 --- 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 B-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

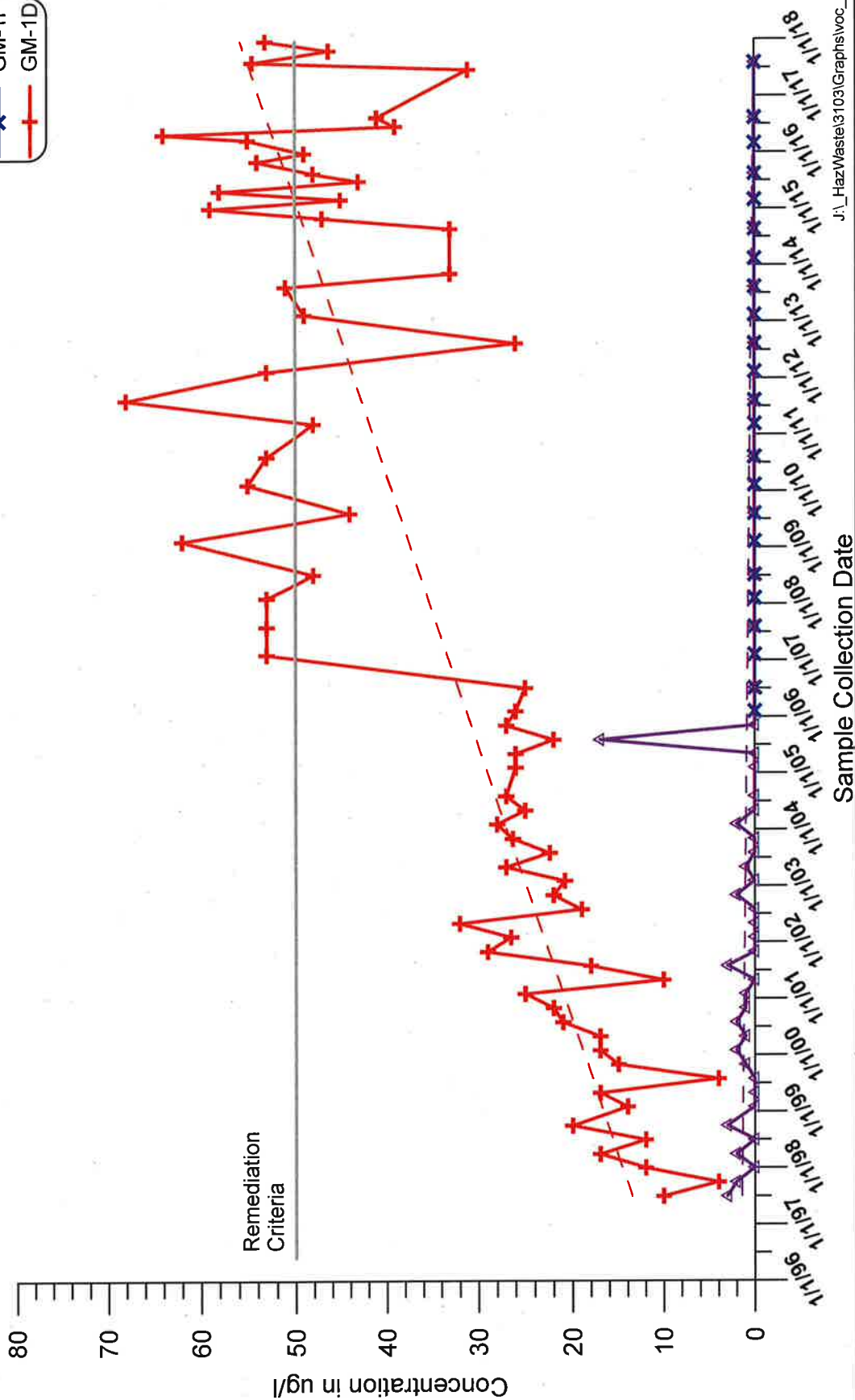
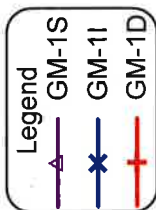
Page 39 of 39

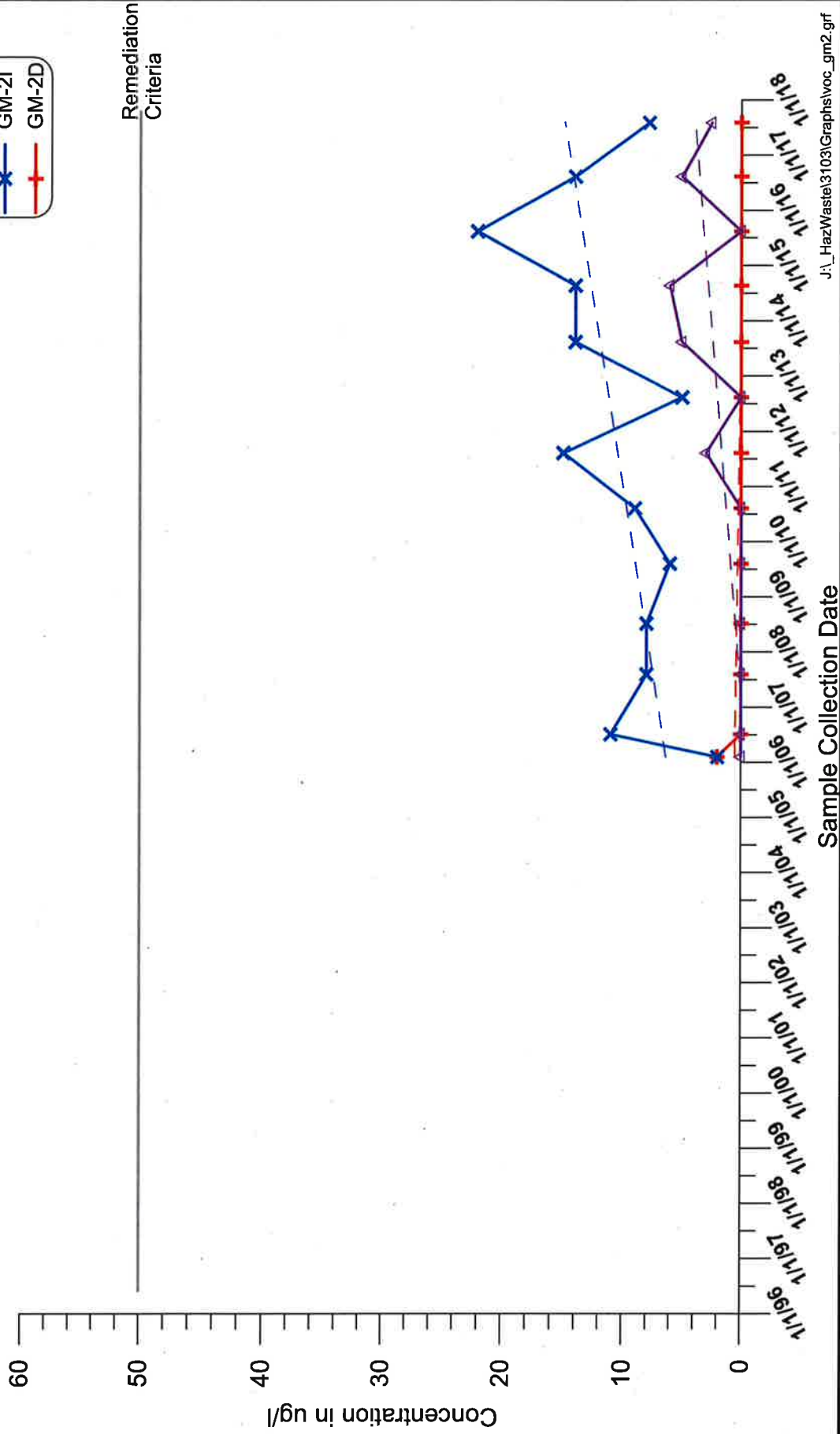
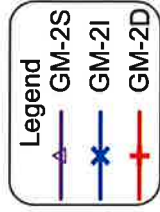
			Sample ID	23M-1	23M-1	23M-1	23M-1
			Sample_date	03/02/16	08/09/16	03/01/17	08/10/17
			Depth of Well BGS	240'	240'	240'	240'
			Depth to bottom screen, relative to MSL	-164'	-164'	-164'	-164'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Units in mg/l							
		NYSDEC CLASS					
		GA					
		GROUNDWATER					
Chemical Name	CAS Number	ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---	123 D	127 D	125 D	146 J	
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	UB	
Bromide	24959-67-9	2 GV	U	U	U	0.12 J	
Chloride (as Cl)	16887-00-6	250 ST	51.6 D	44.7 D	42.4 D	42.5	
Cod - Chemical Oxygen Demand	COD	---	UJ	U	U	17.2	
Color	COLOR	---	U	5	U	5	
Hardness (as CaCO3)	HARD	---	156 D	160 D	220 D	133 J	
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.11	U	U	UB	
Nitrogen, Kjeldahl, Total	KN	---	0.20	0.15	0.18	UBJ	
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	2.17 D	2.69 D	2.17 D	2.6 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	44.6 D	39.9 D	43.0 J	39.8	
Total Dissolved Solids	E-10173	---	272	296	128	238	
Total Organic Carbon	TOC	---	2.90	3.4	33.2	3.3	

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
 -- 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 C-1

HISTORICAL TREND GRAPHS FOR MONITORING WELLS - TOTAL VOLATILE ORGANIC COMPOUNDS





J:_HazWaste\3103\Graphs\voc_gm2.grf



Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Monitoring Well Cluster GM-2



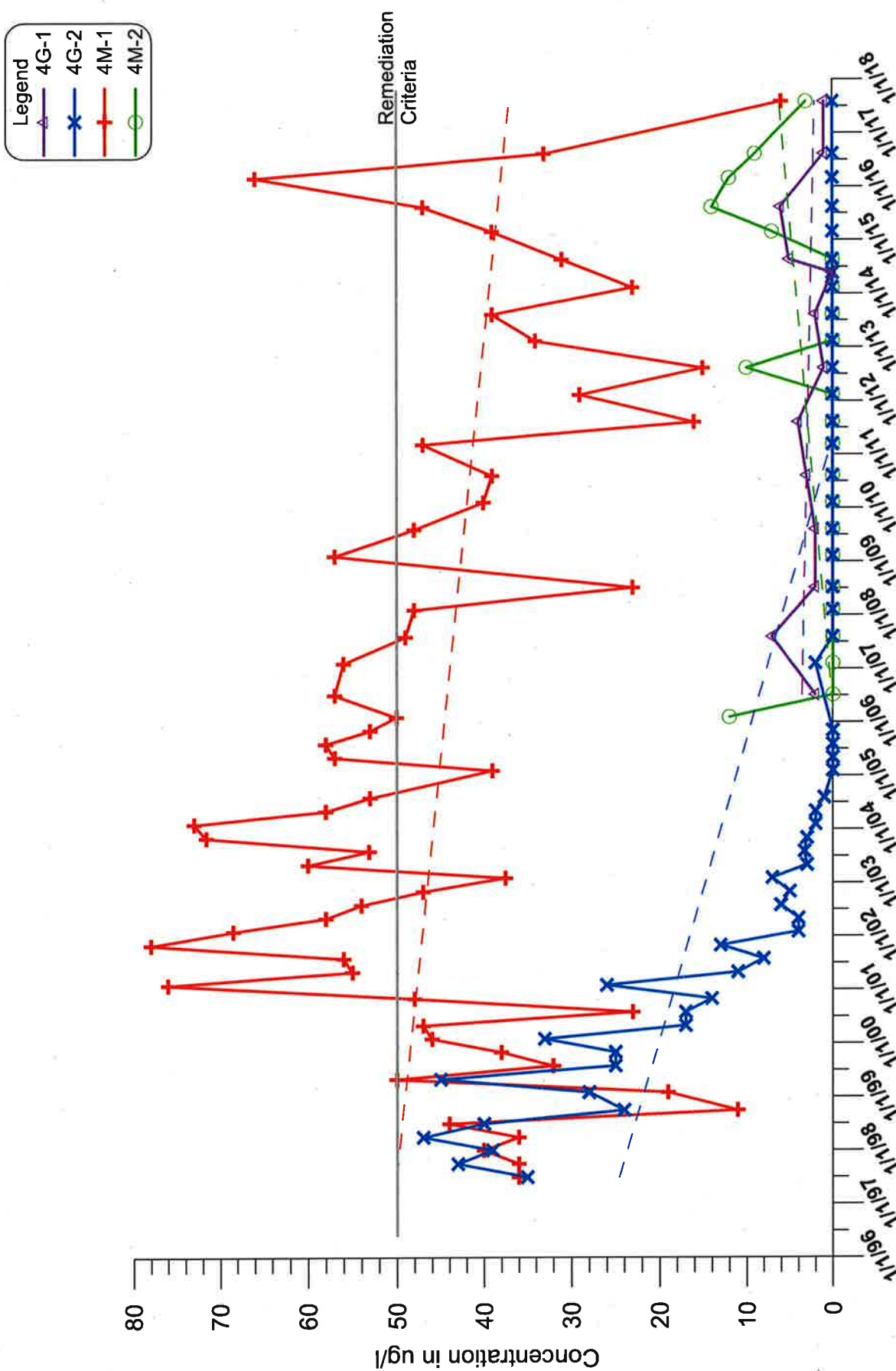
D&B ENGINEERS
AND
ARCHITECTS, P.C.

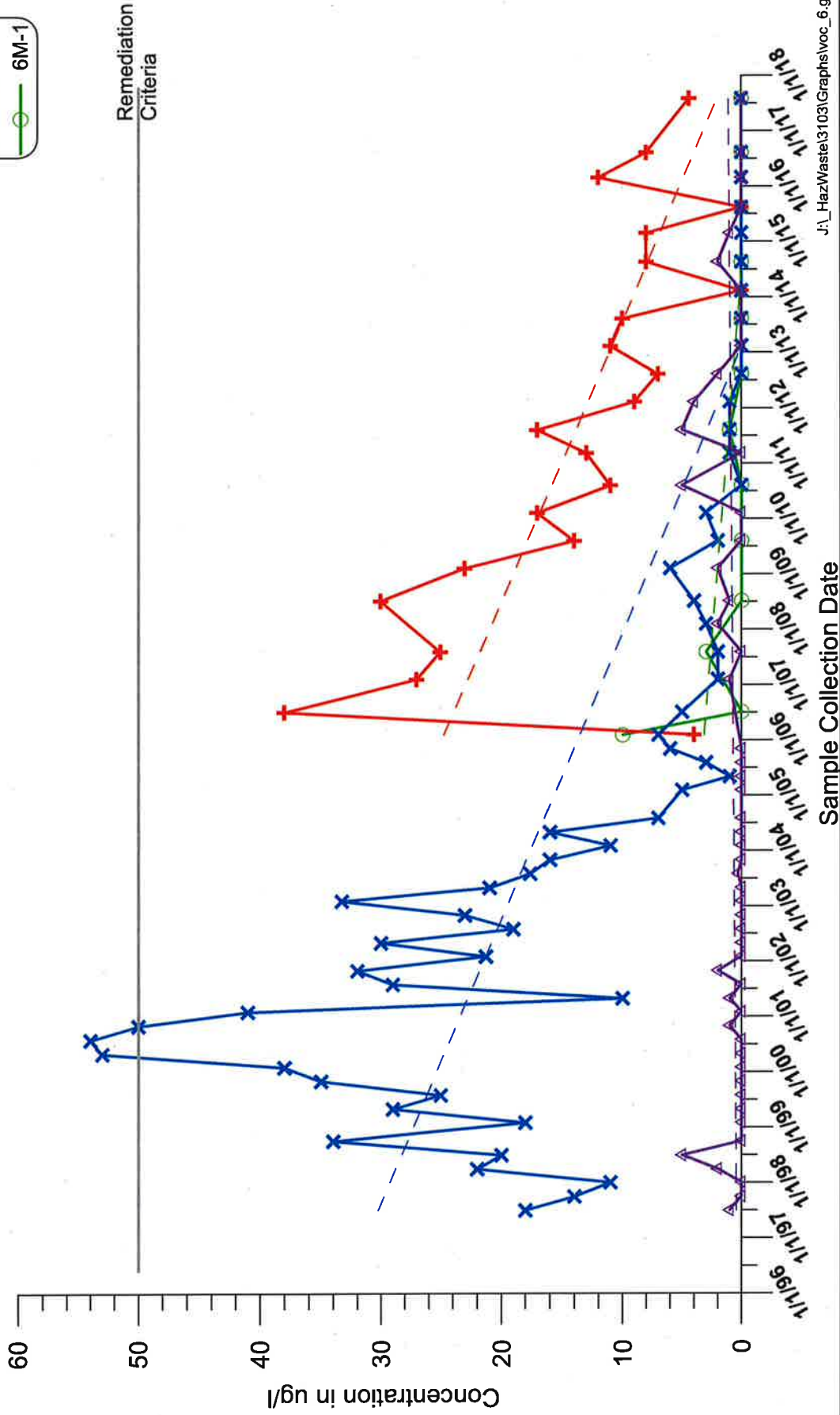
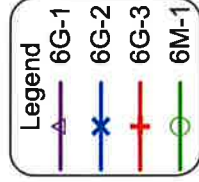
**Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Monitoring Well Cluster 4**

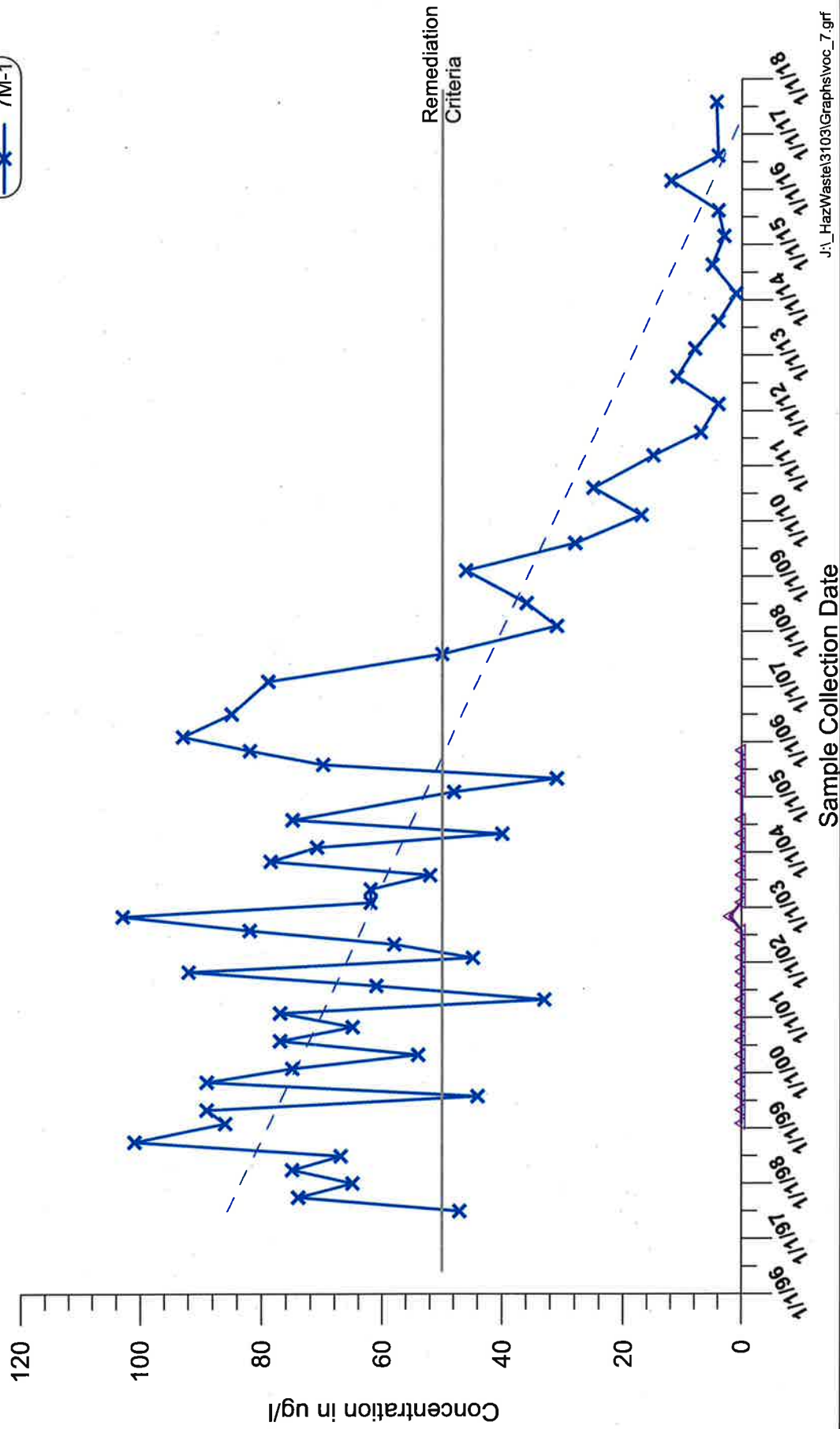
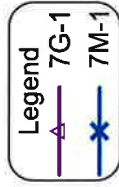
**Appendix
C-1**

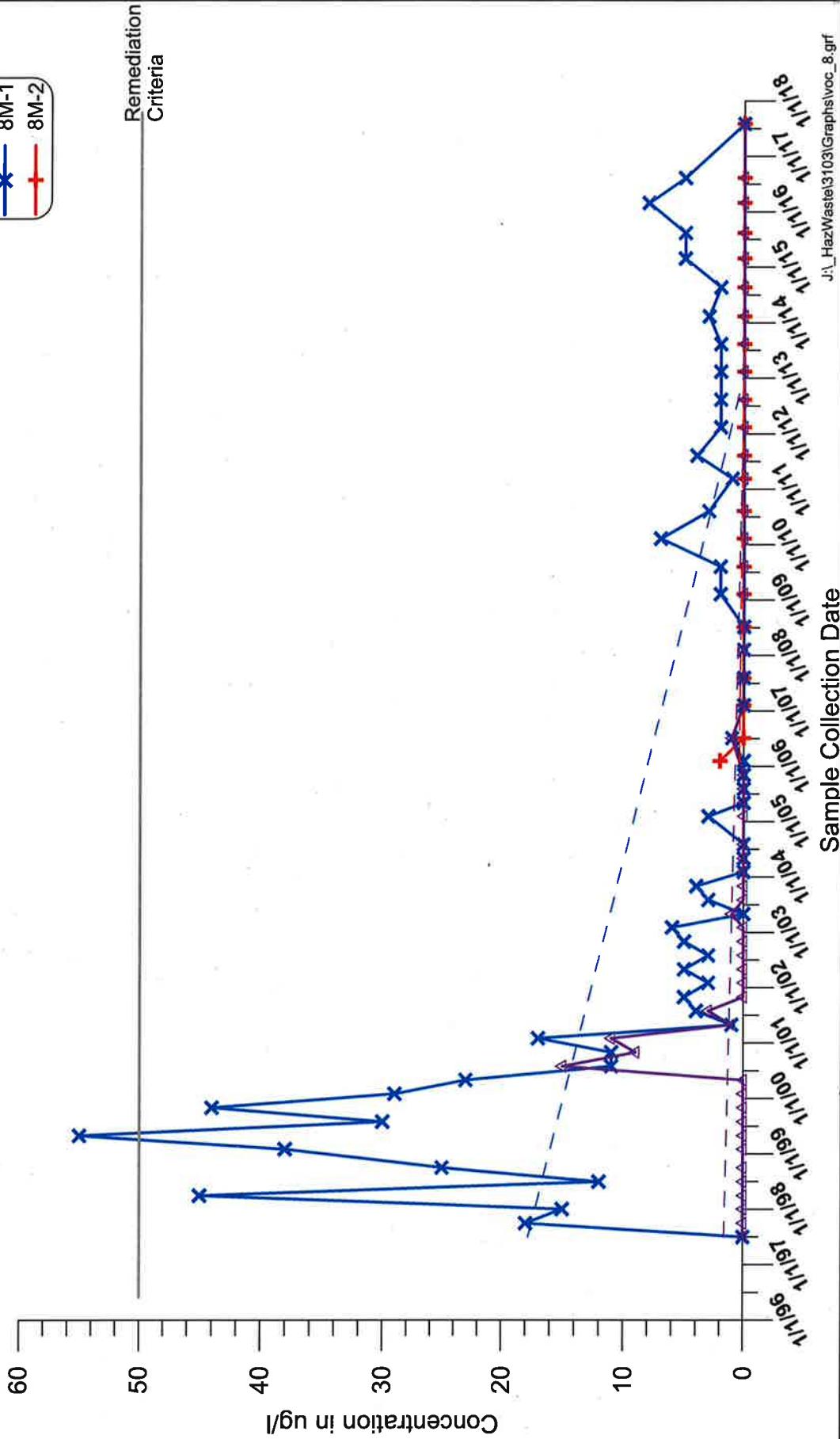
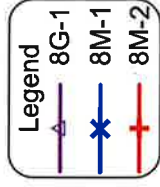
J:_HazWaste\3103\Graphs\Woc_4.grf

Sample Collection Date

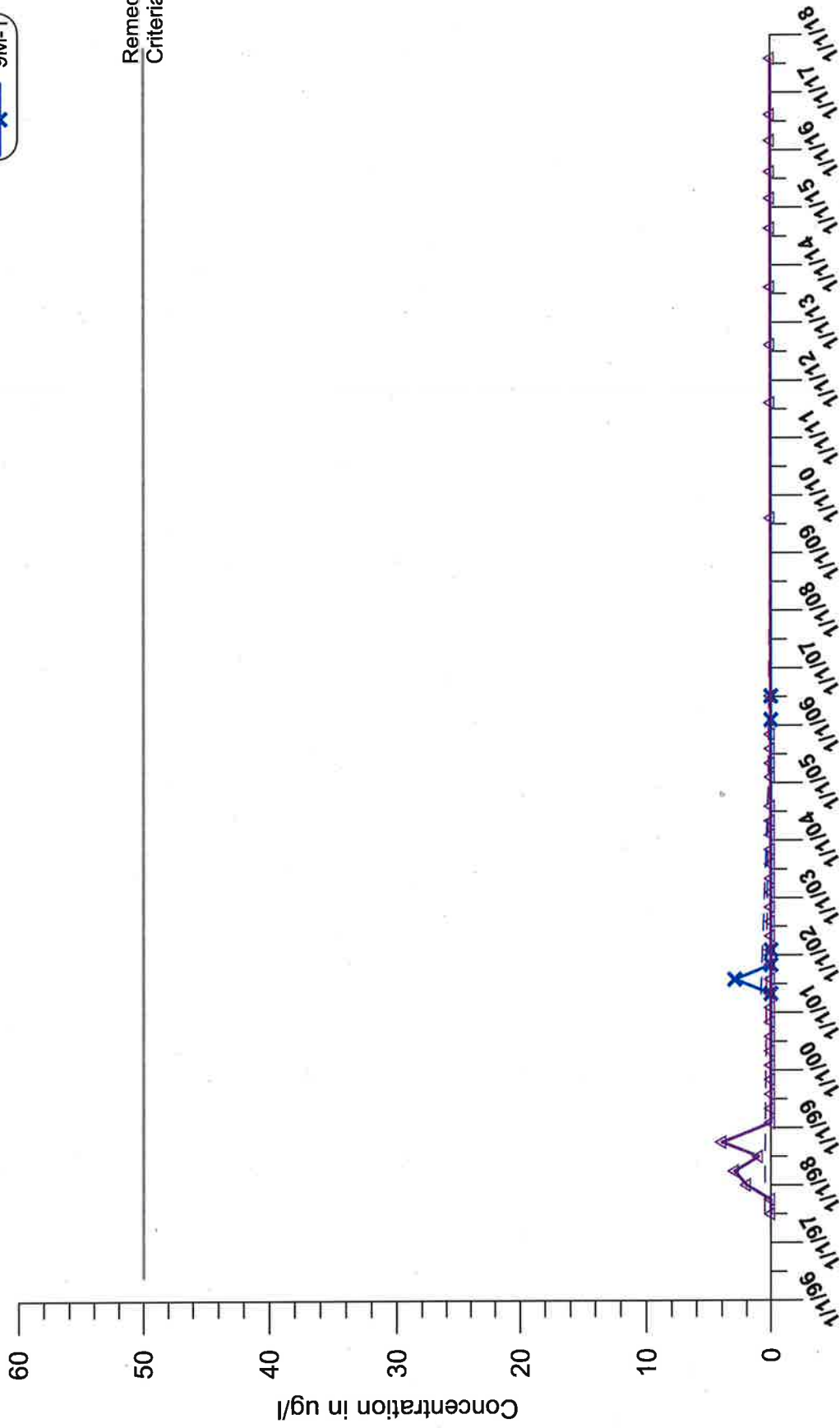
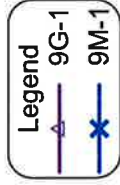








Blydenburgh Road Landfill Complex
 Historical Volatile Organic Compound Data for
 Monitoring Well Cluster 8

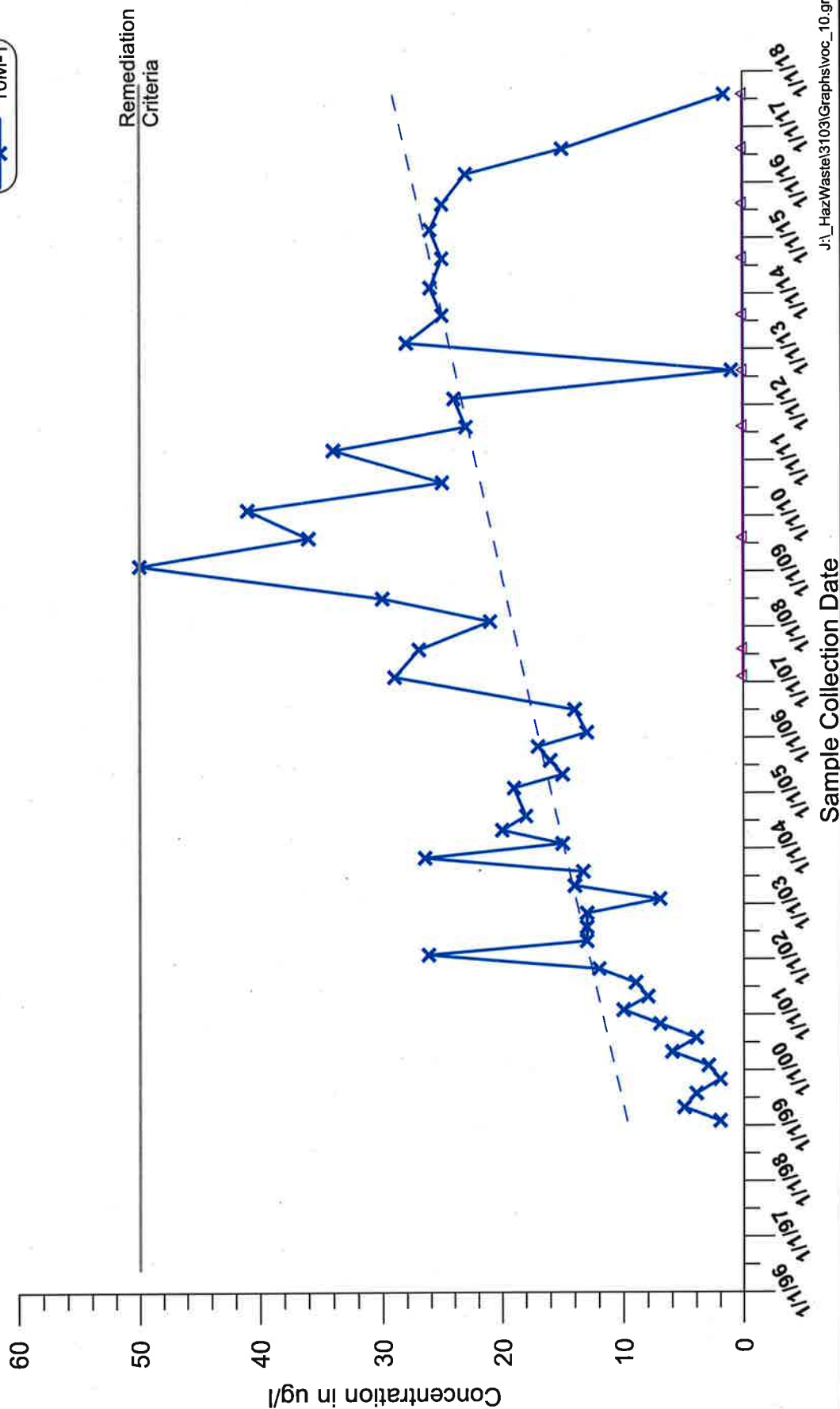
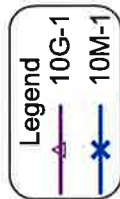


J:_HazWaste\3103\Graphs\Voc_9.grf



**Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Monitoring Well Cluster 9**

**Appendix
C-1**

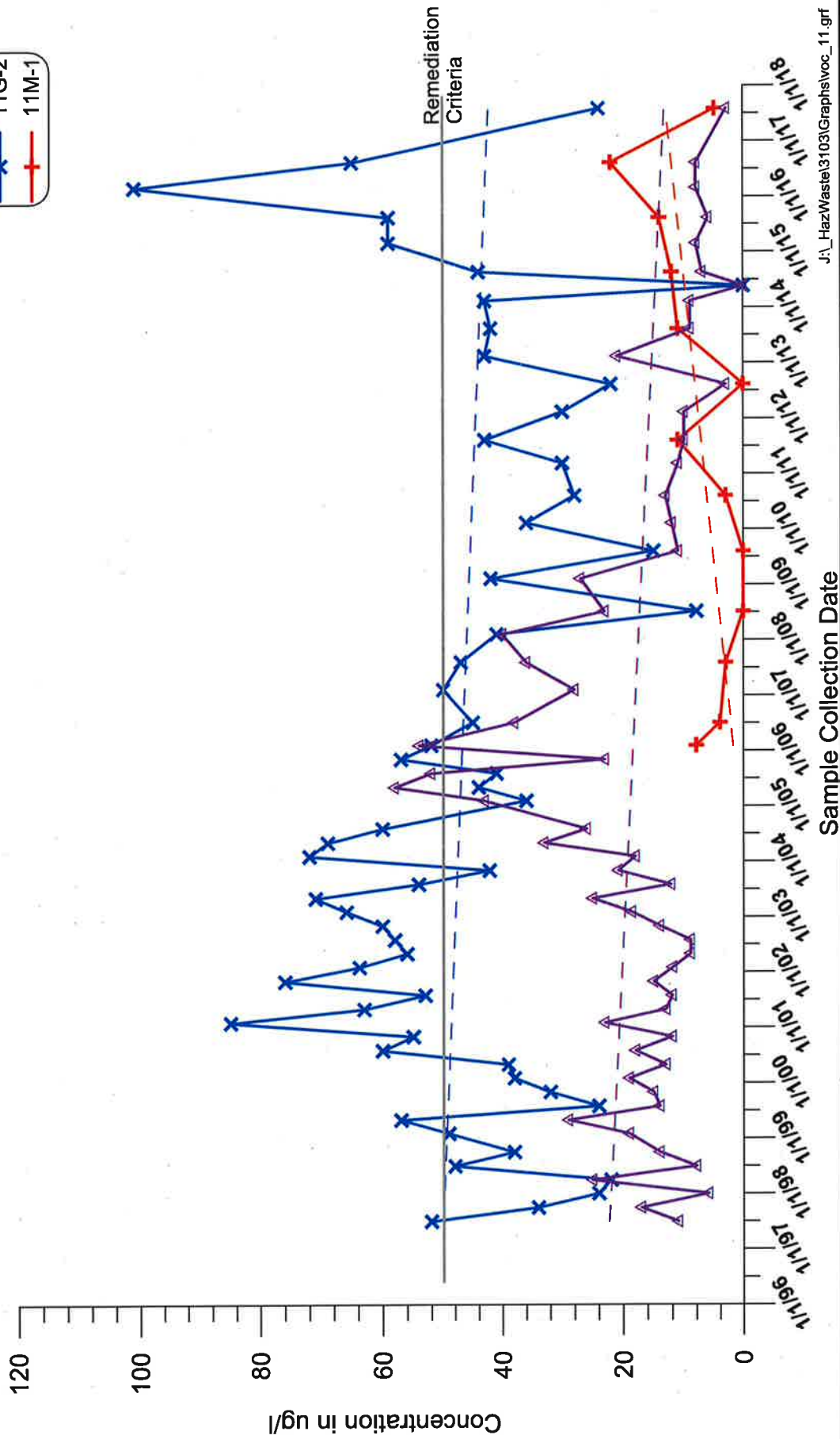
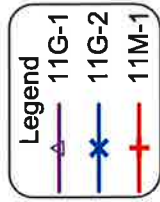


J:_HazWaste\3103\Graphs\voc_10.grf



Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Monitoring Well Cluster 10

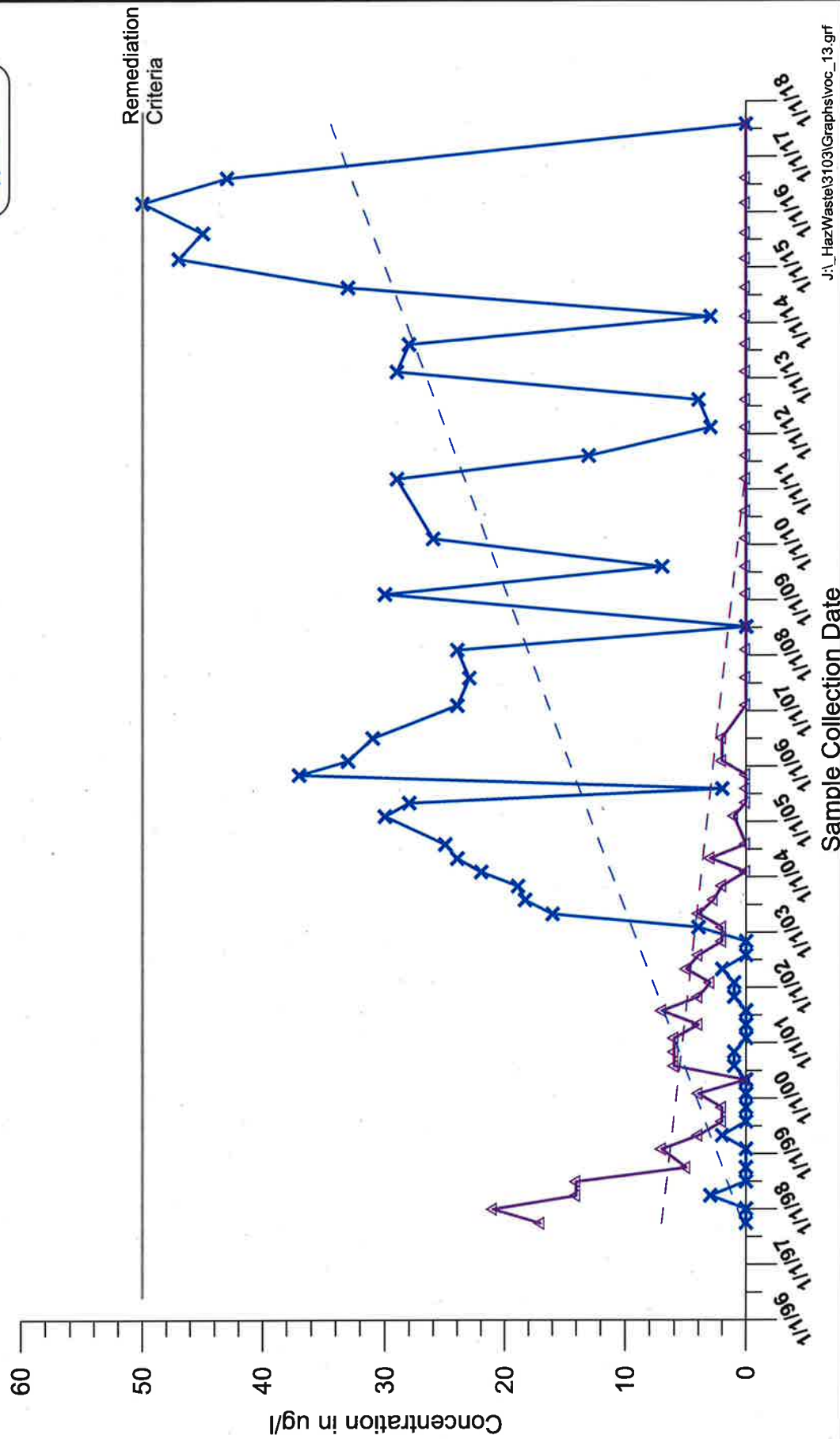
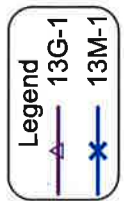
Appendix
C-1



J:_HazWaste\3103\Graphs\voc_11.grf



Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Monitoring Well Cluster 11

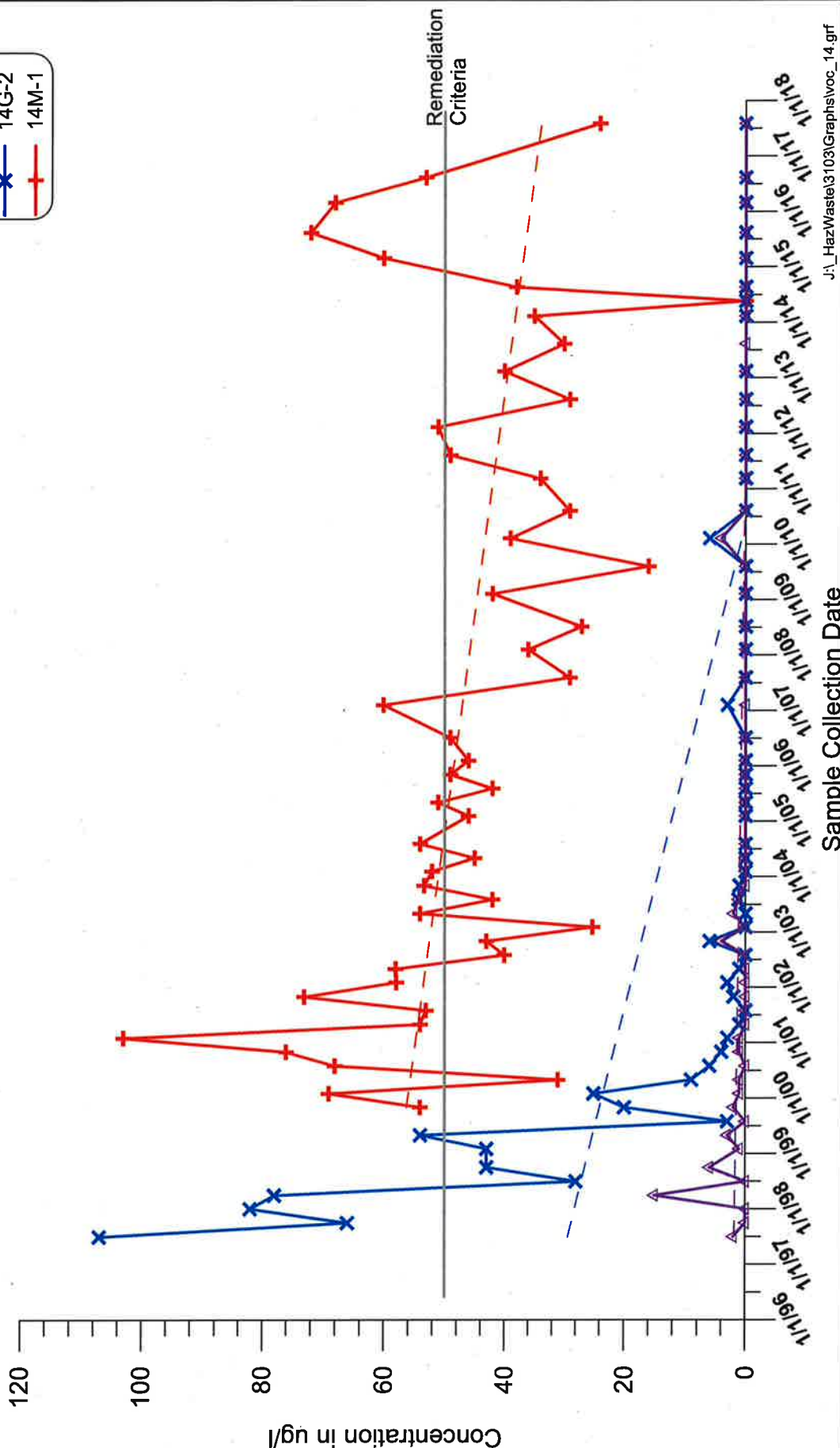
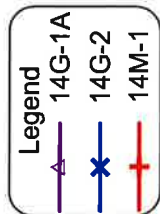


J:_HazWaste\3103\Graphs\voc_13.grf



**Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Monitoring Well Cluster 13**

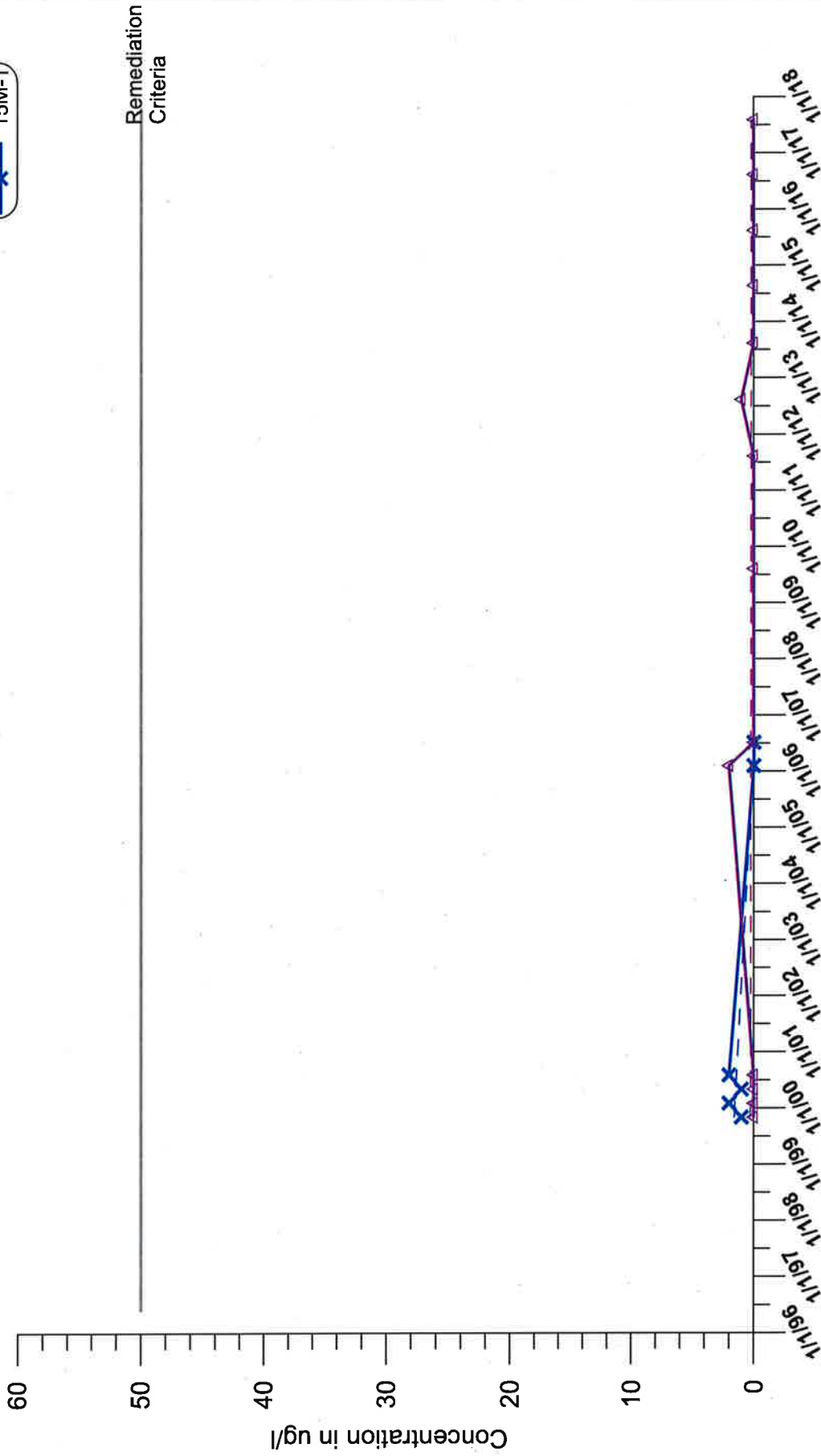
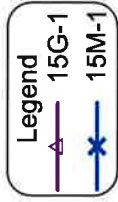
**Appendix
C-1**



J:_HazWaste\3103\Graphsvoc_14.grf



Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Monitoring Well Cluster 14



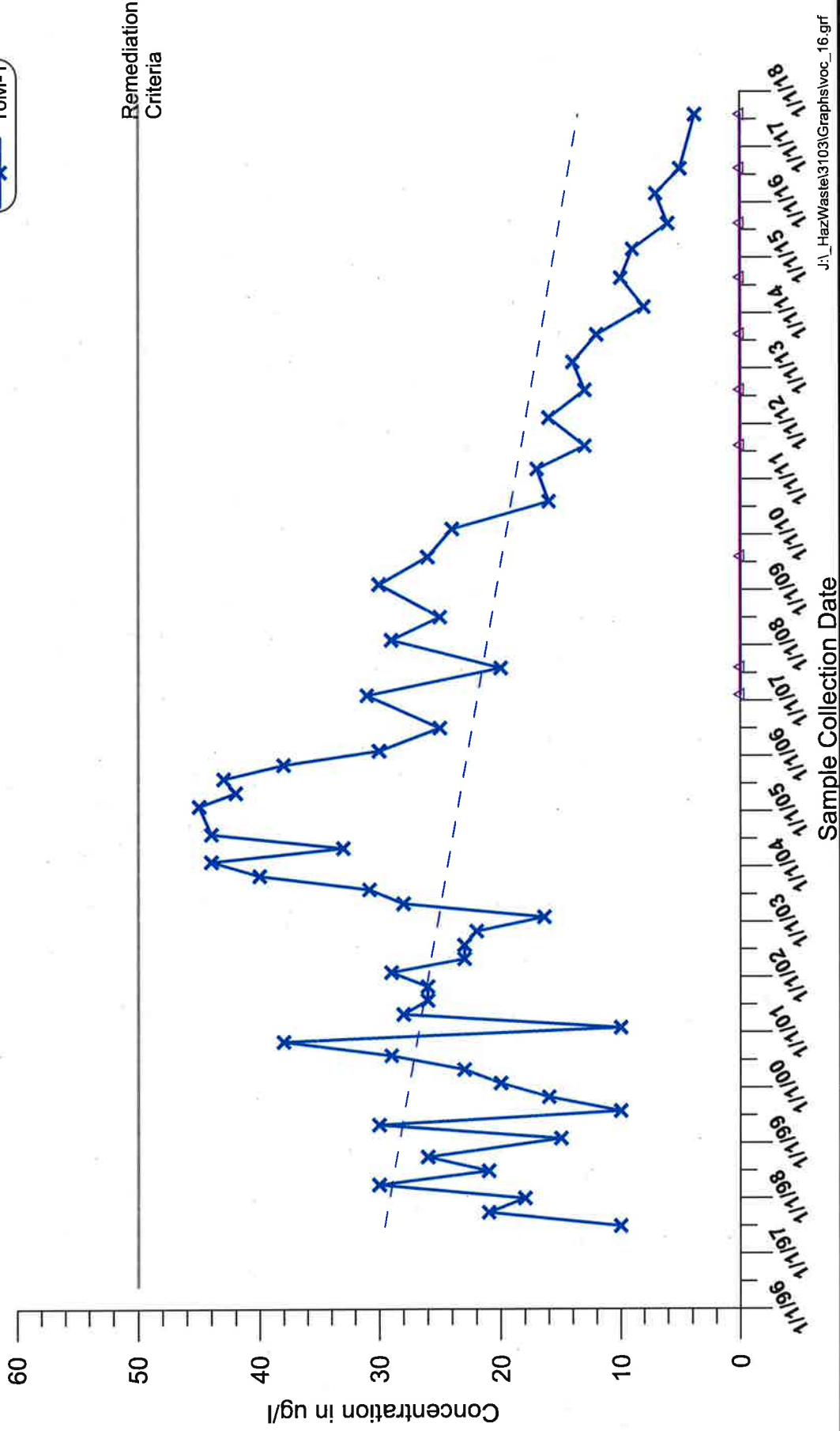
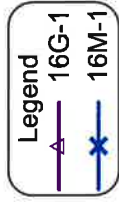
J:_HazWaste\3103\Graphs\voc_15.grf

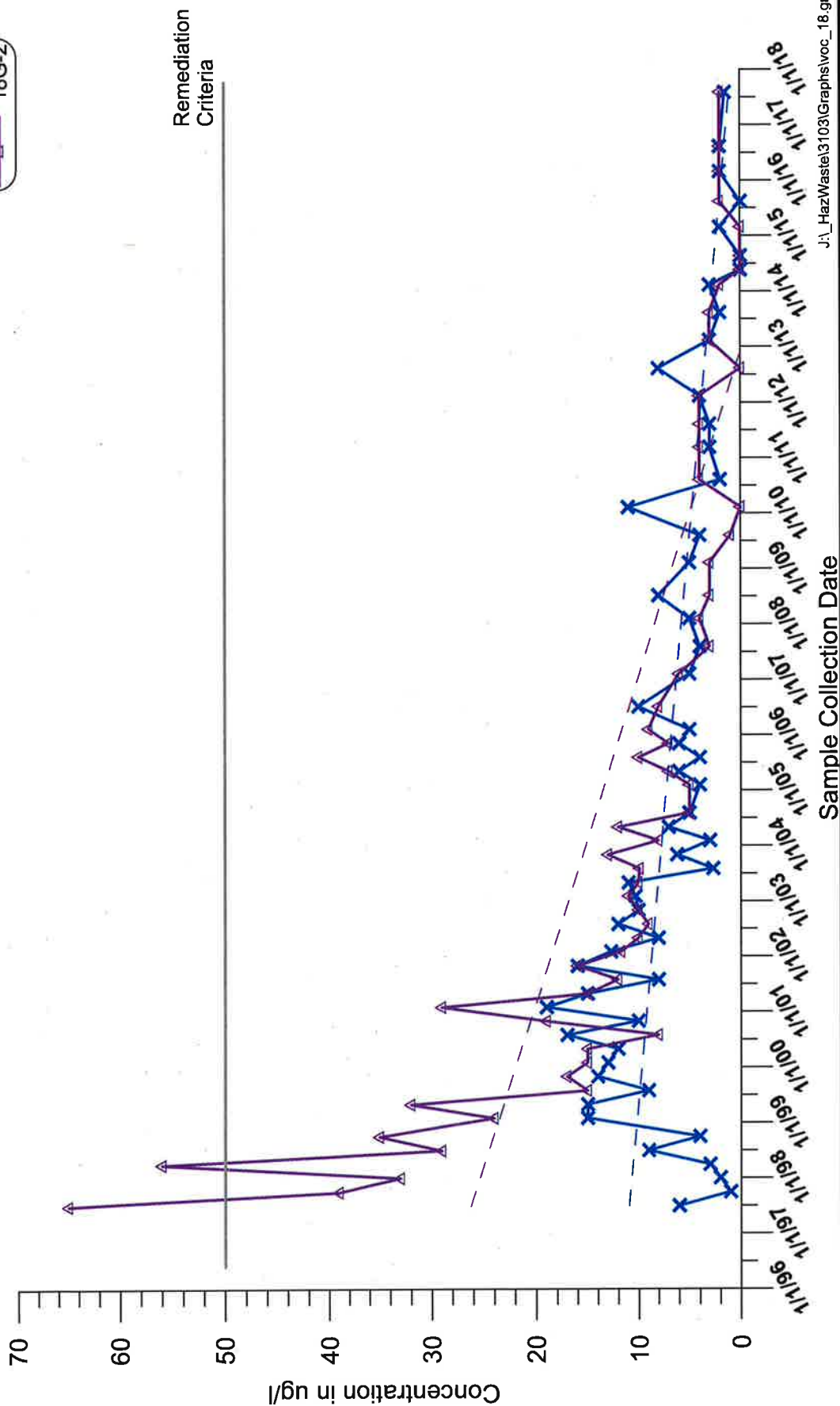
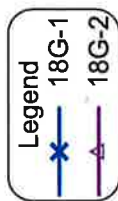
Sample Collection Date



**Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Monitoring Well Cluster 15**

**Appendix
C-1**

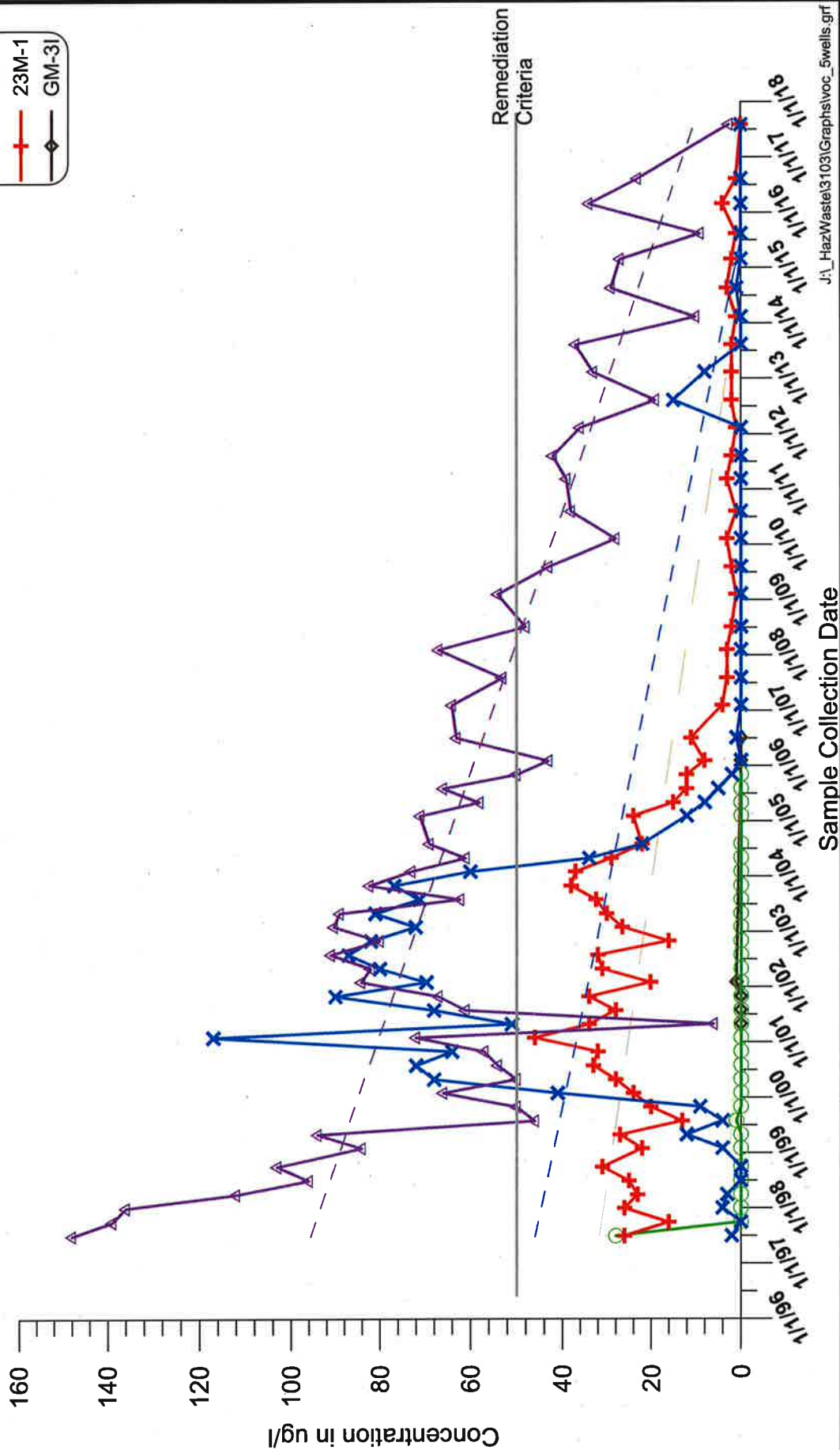
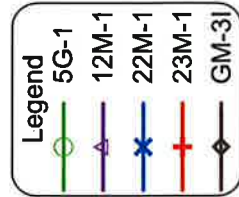




Appendix C-1

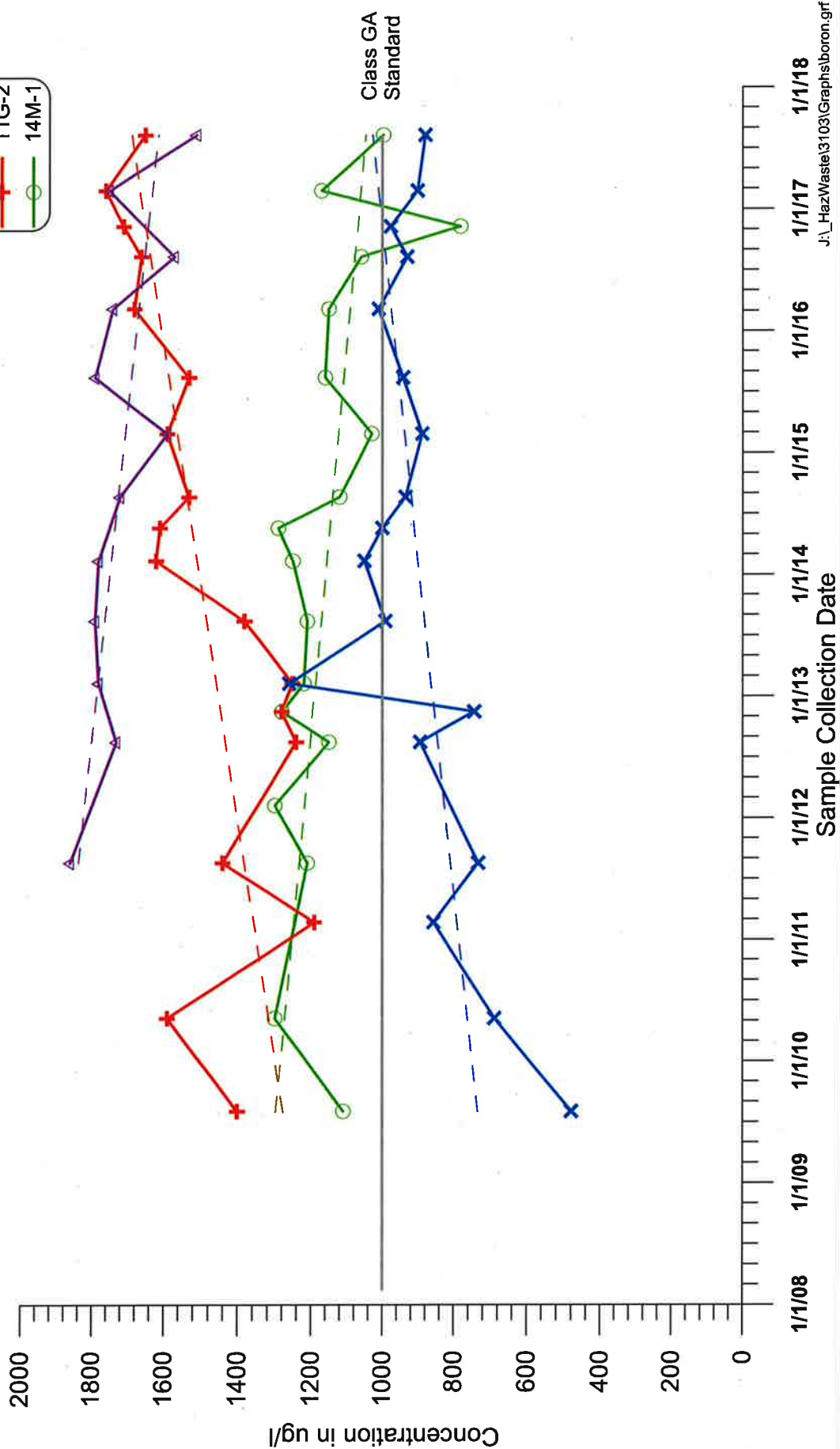
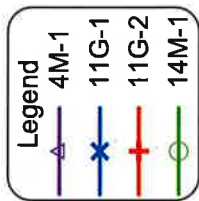
Blydenburgh Road Landfill Complex Historical Volatile Organic Compound Data for Monitoring Well Cluster 18

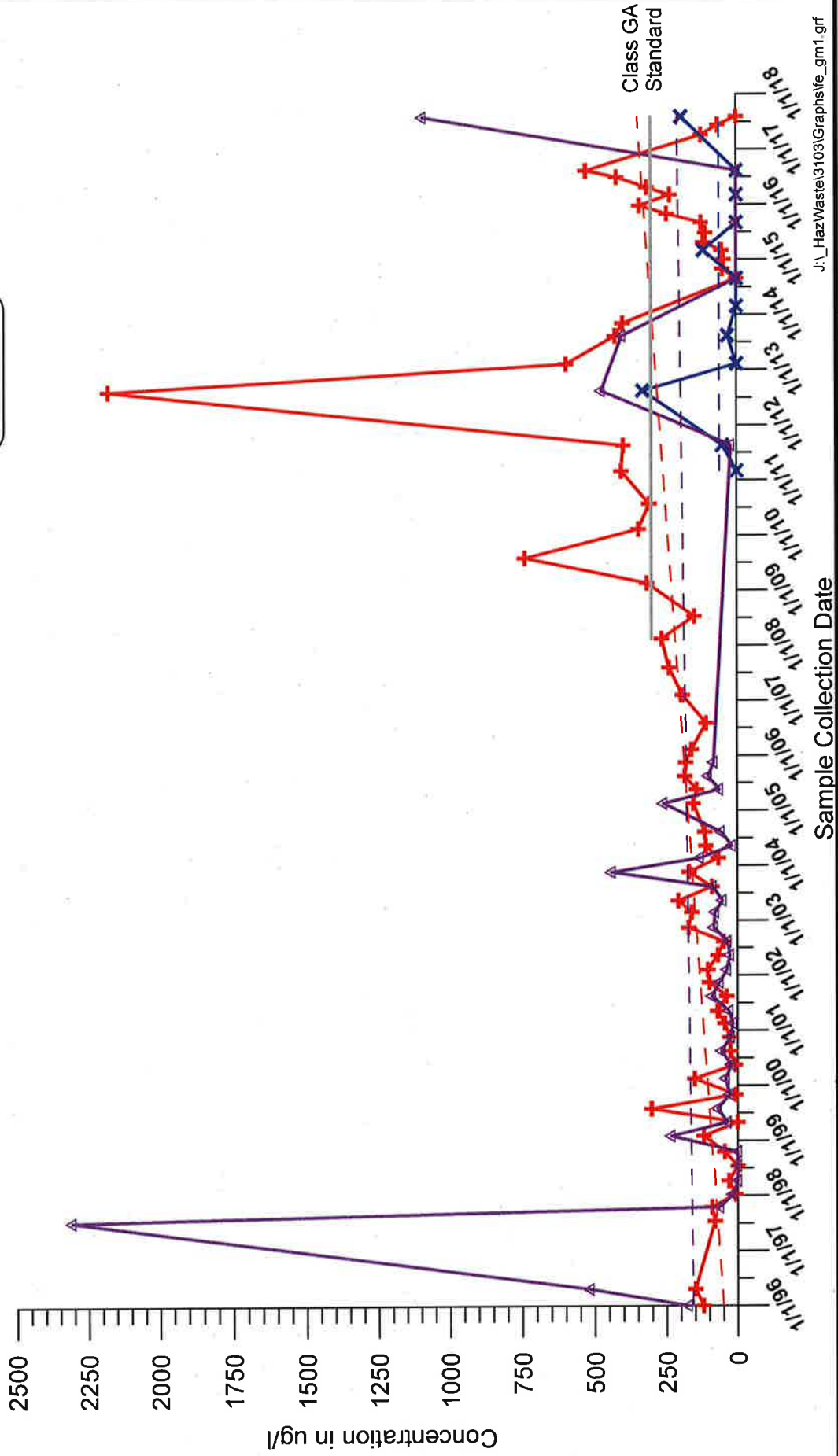
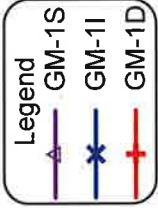


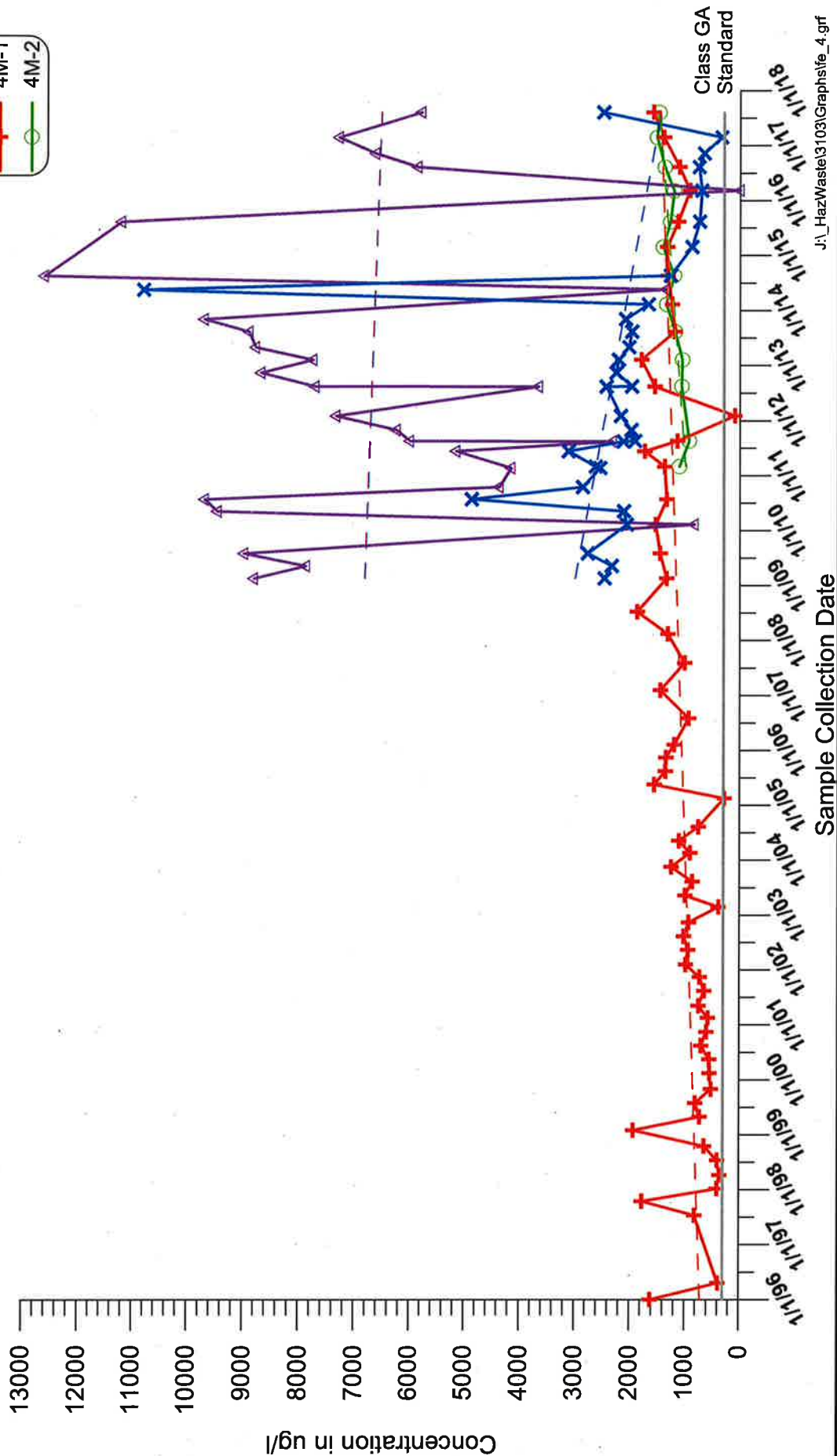
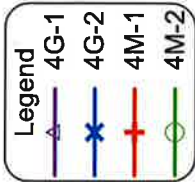


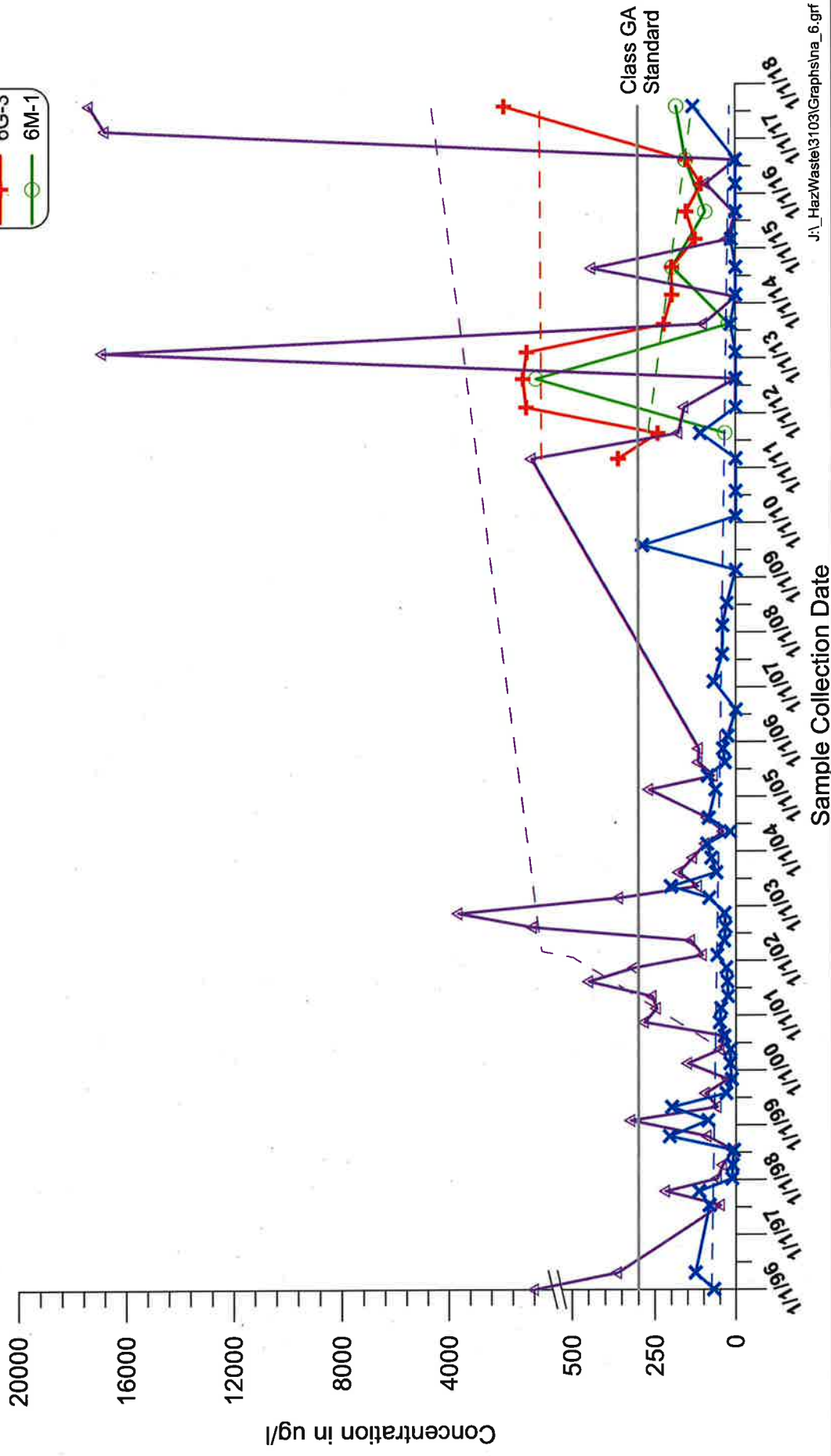
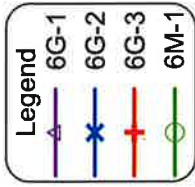
APPENDIX C-2

HISTORICAL TREND GRAPHS FOR MONITORING WELLS - INORGANIC PARAMETERS





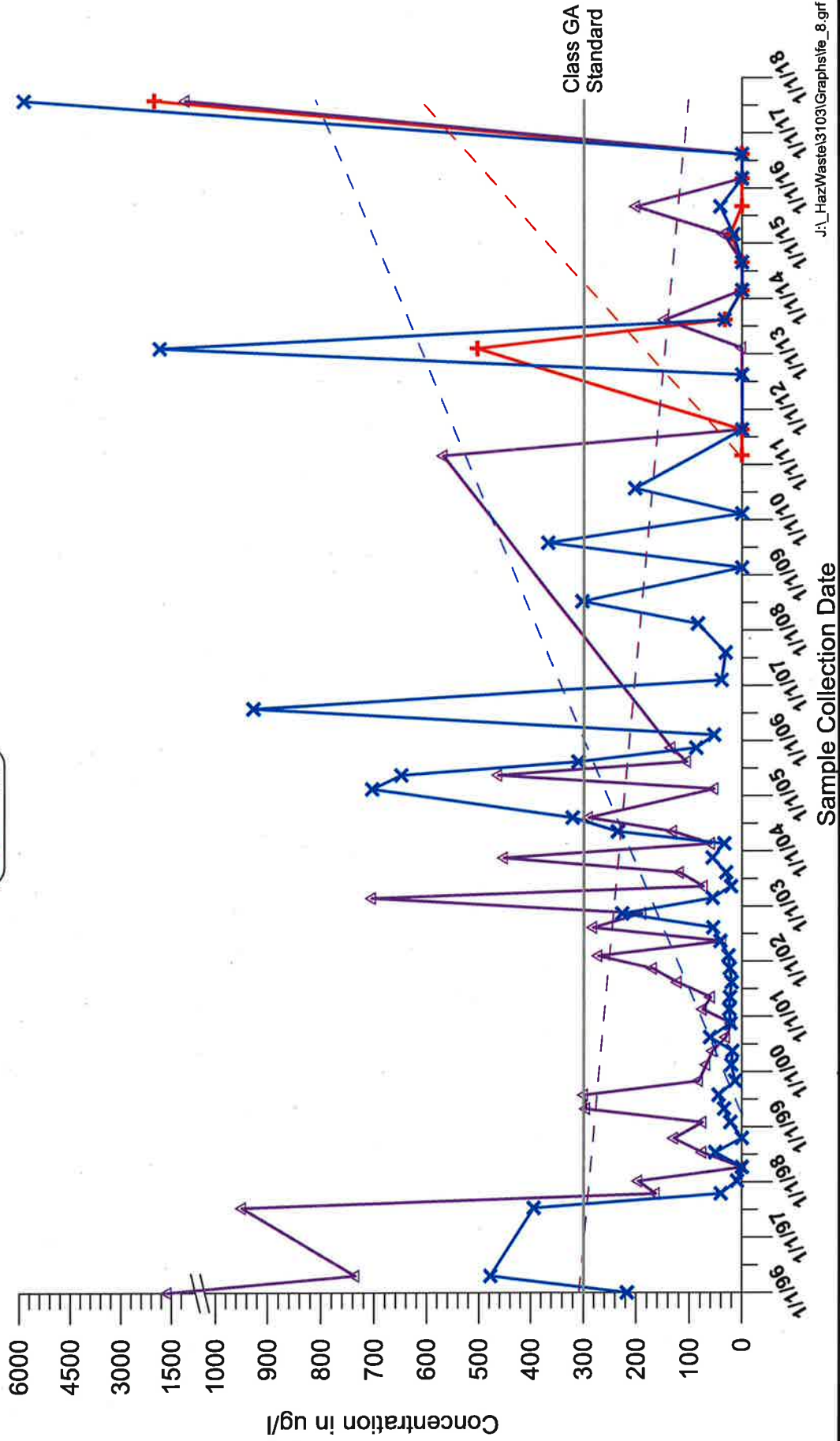
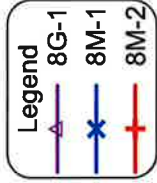


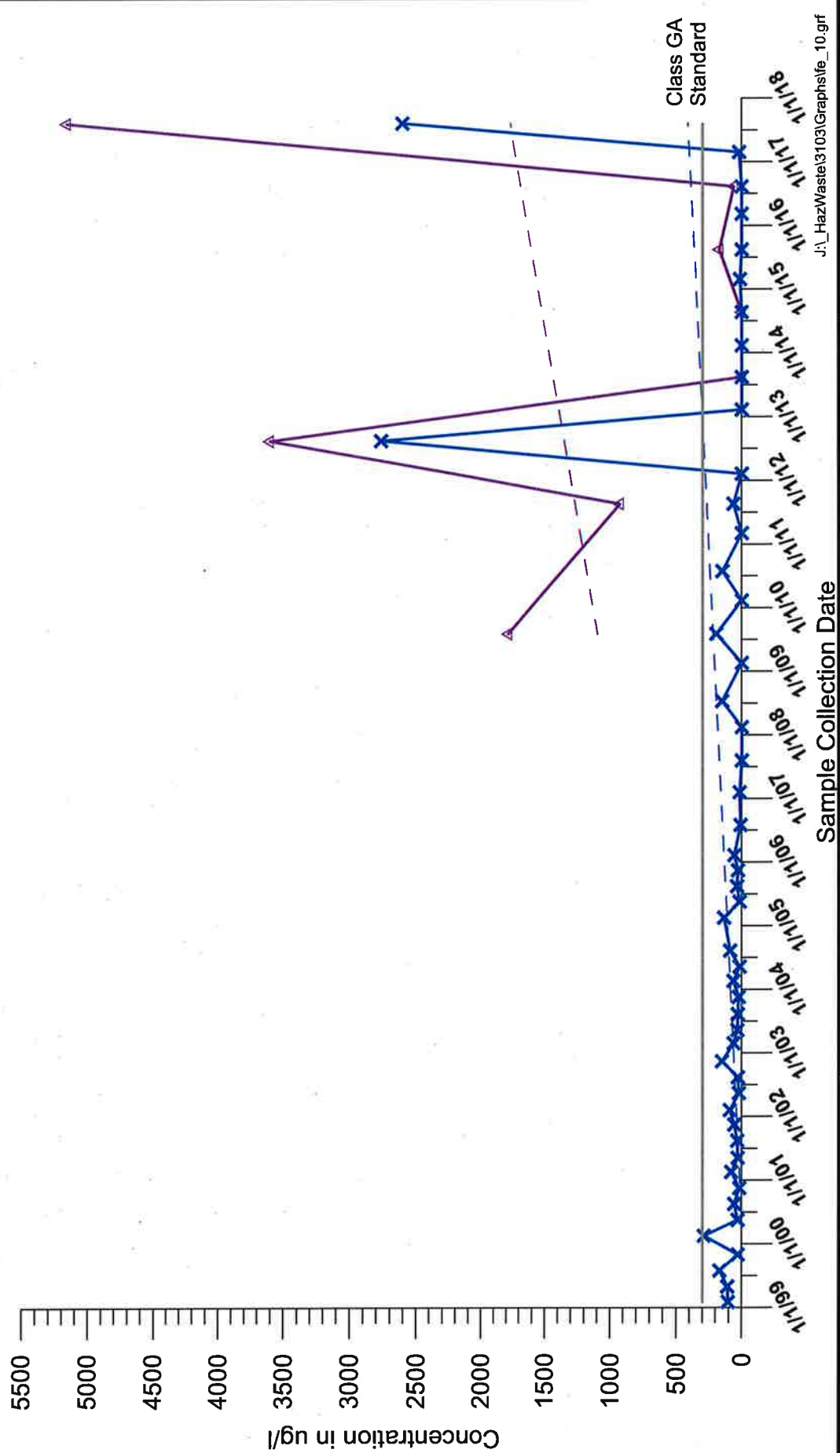
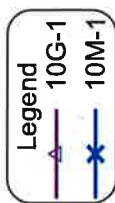


J:_HazWaste\3103\Graphs\hna_6.grf



**Blydenburgh Road Landfill Complex
Historical Iron Data for Monitoring Well Cluster 6**

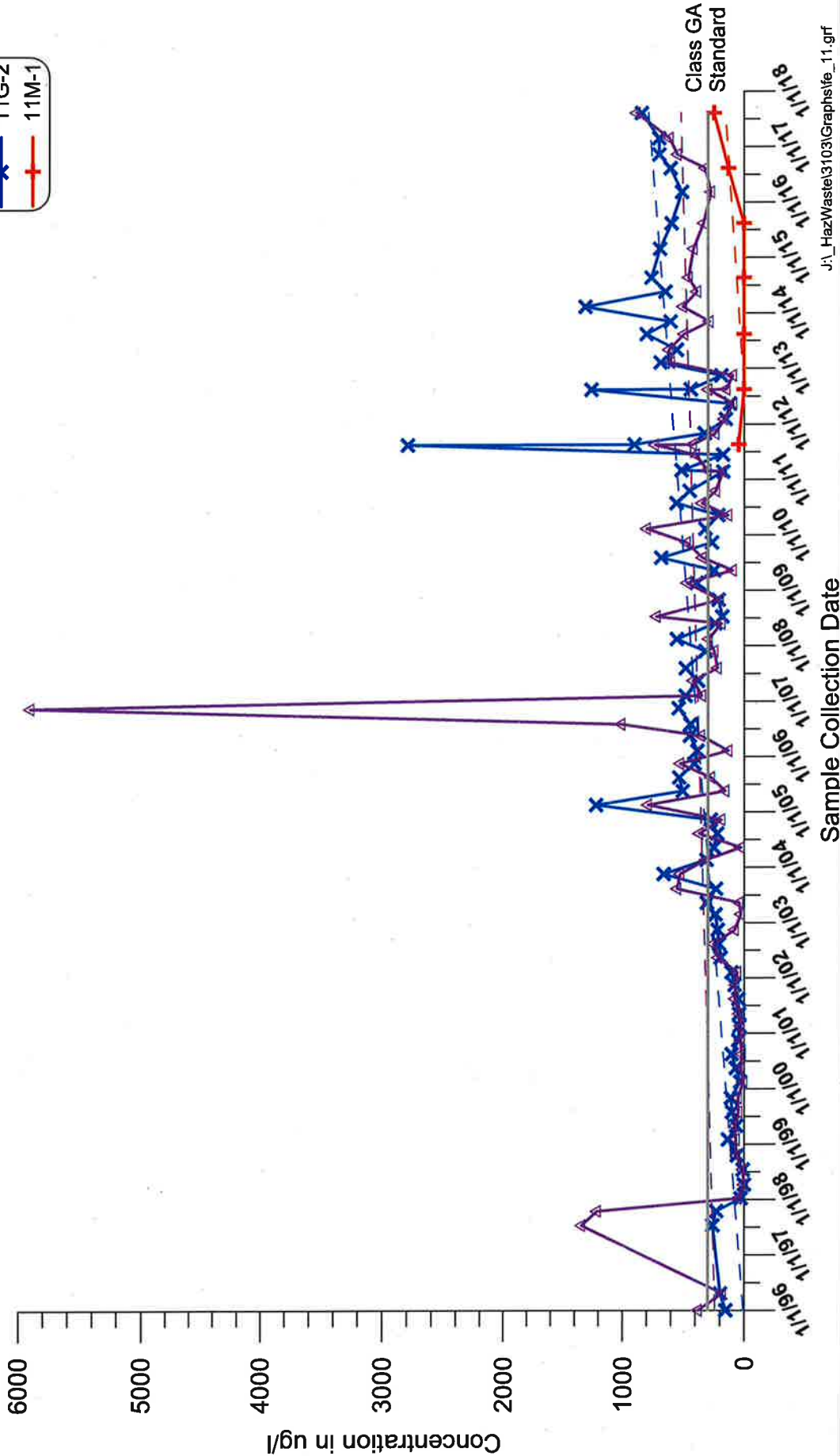
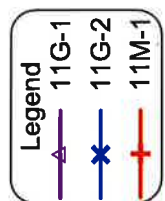




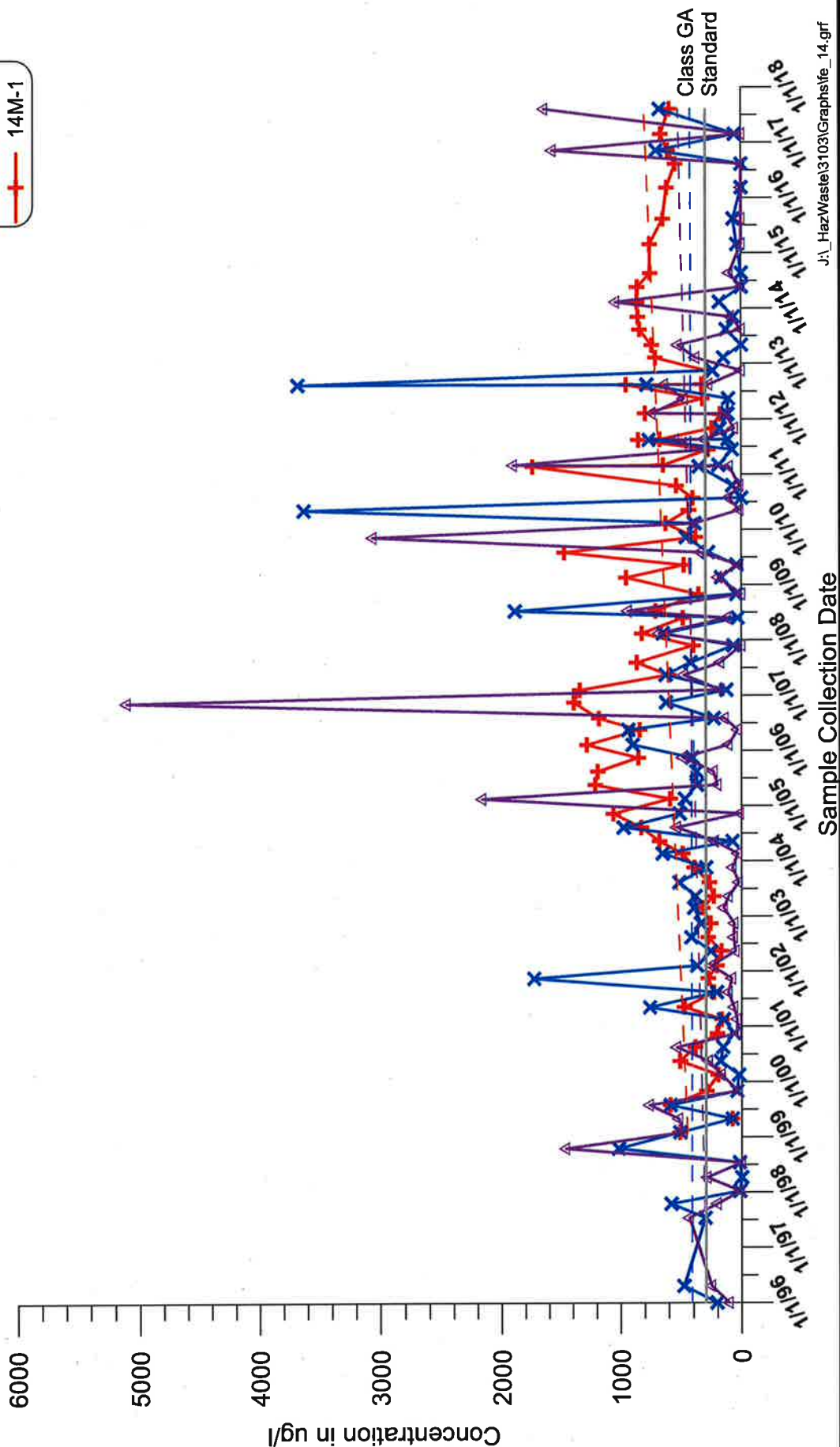
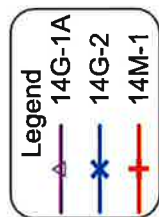
J:_HazWaste\3103\Graphs\fe_10.grf

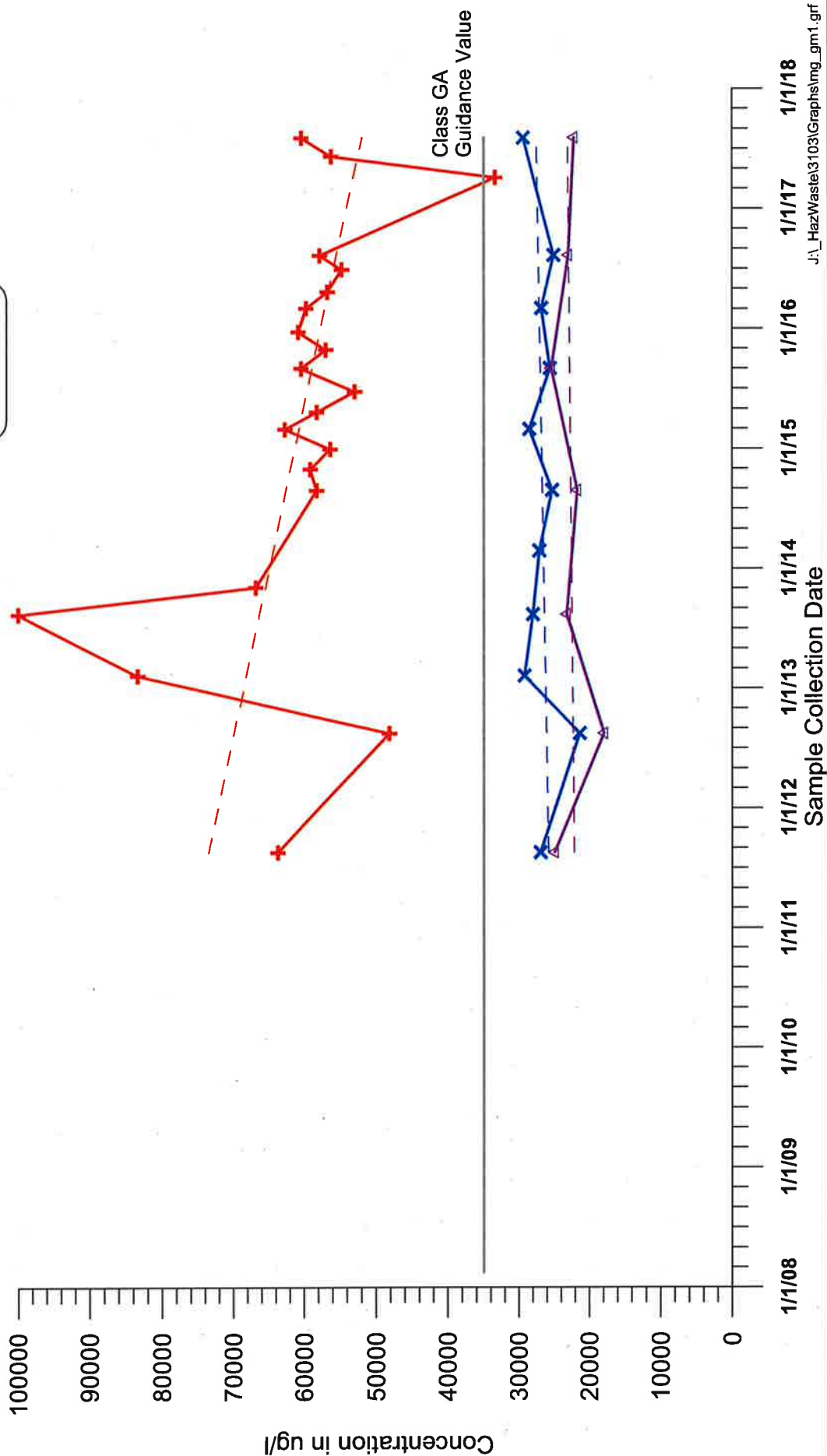
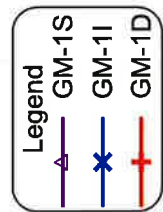


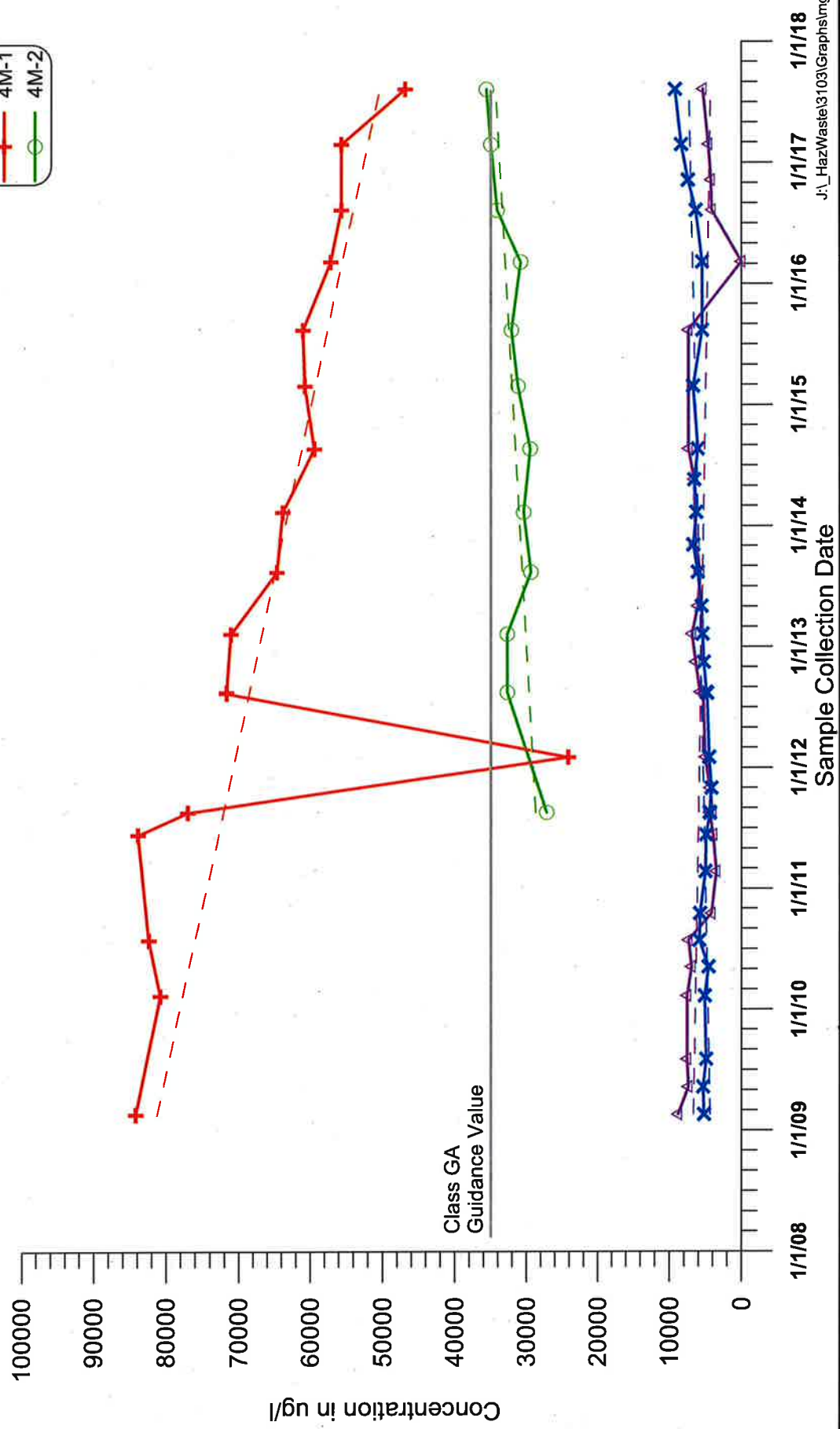
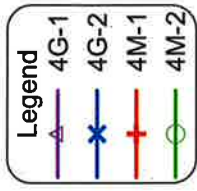
Blydenburgh Road Landfill Complex Historical Iron Data for Monitoring Well Cluster 10



Blydenburgh Road Landfill Complex
Historical Iron Data for Monitoring Well Cluster 11

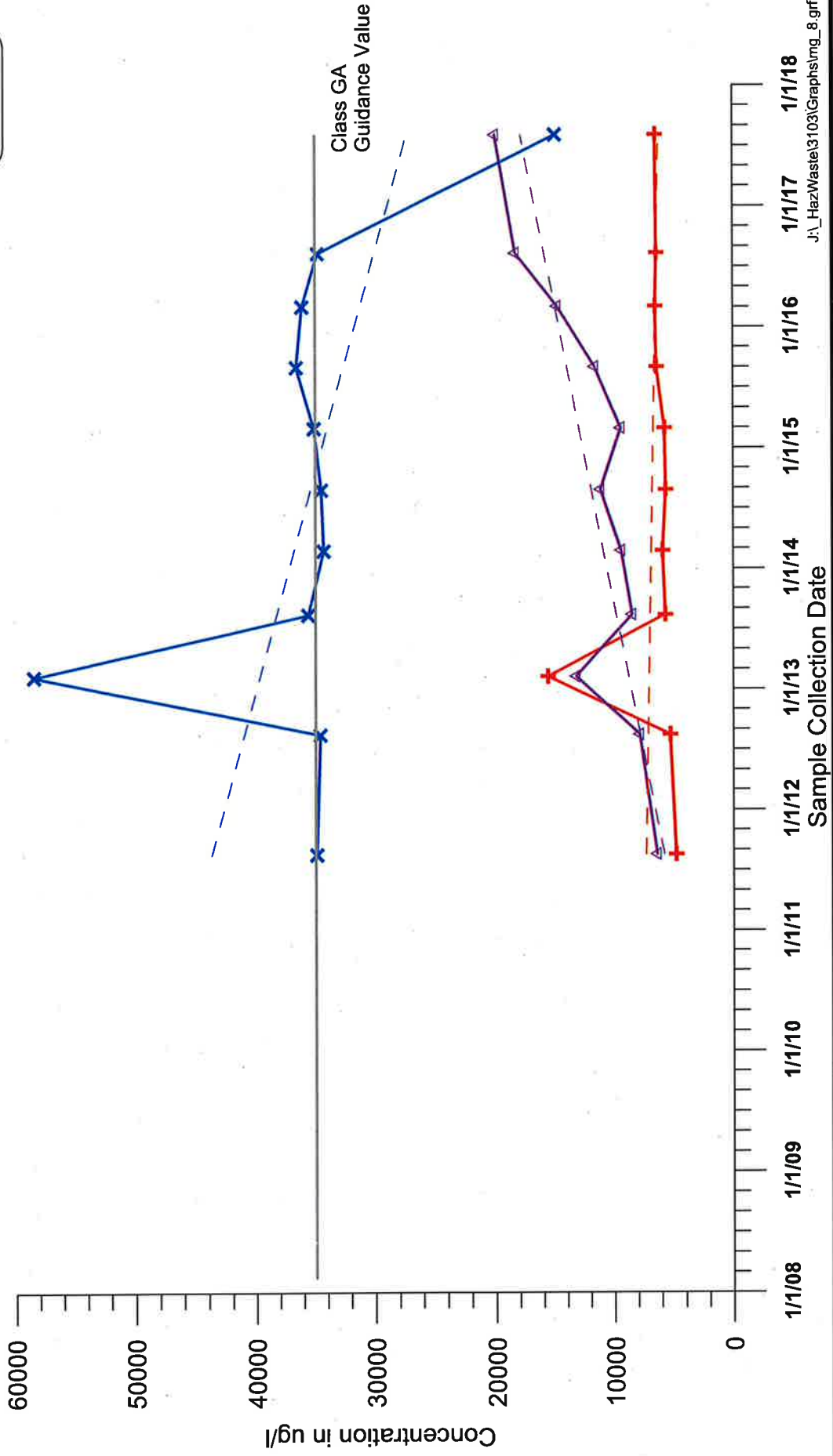
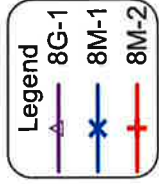


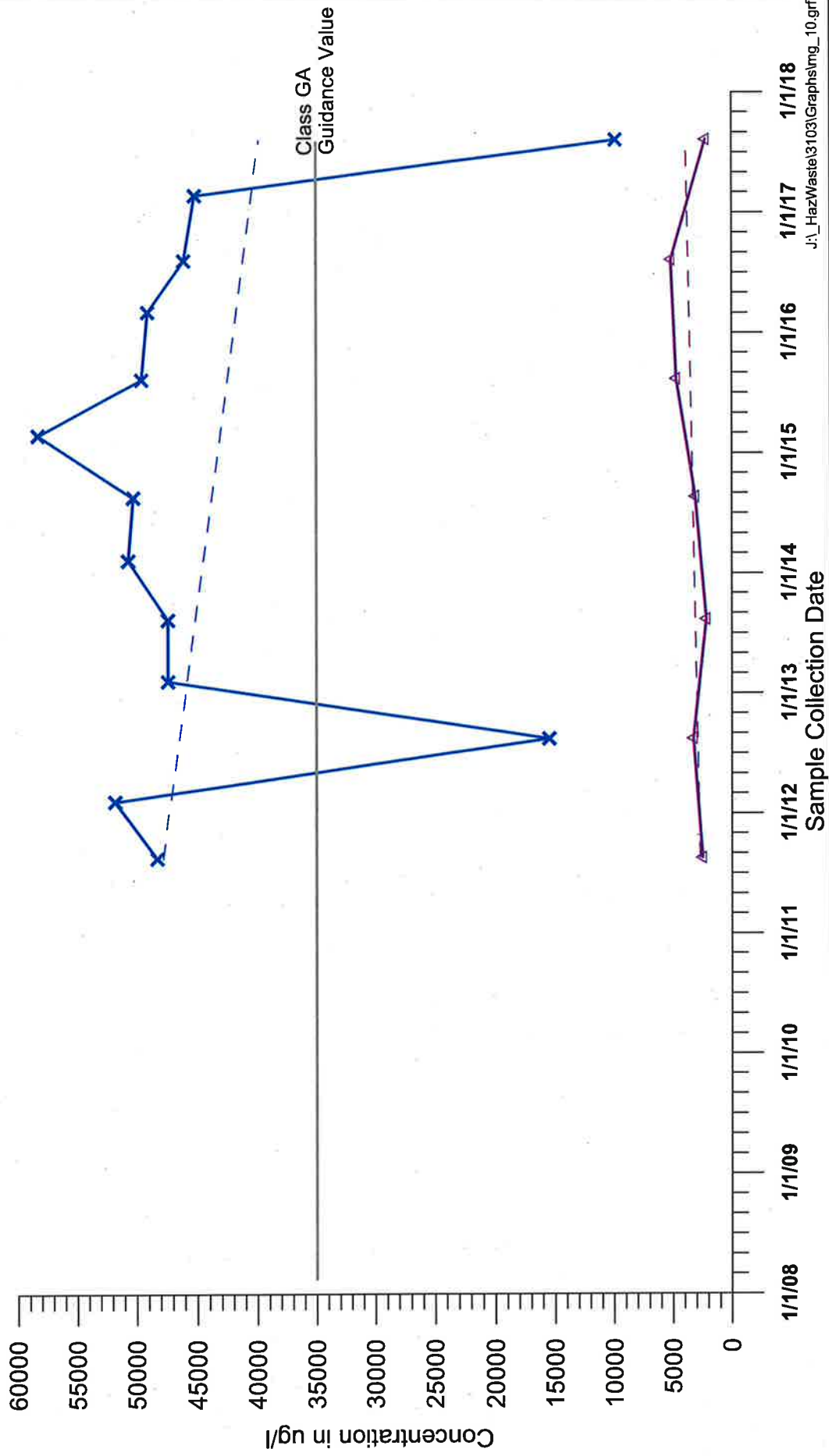
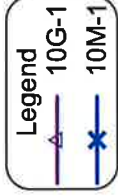


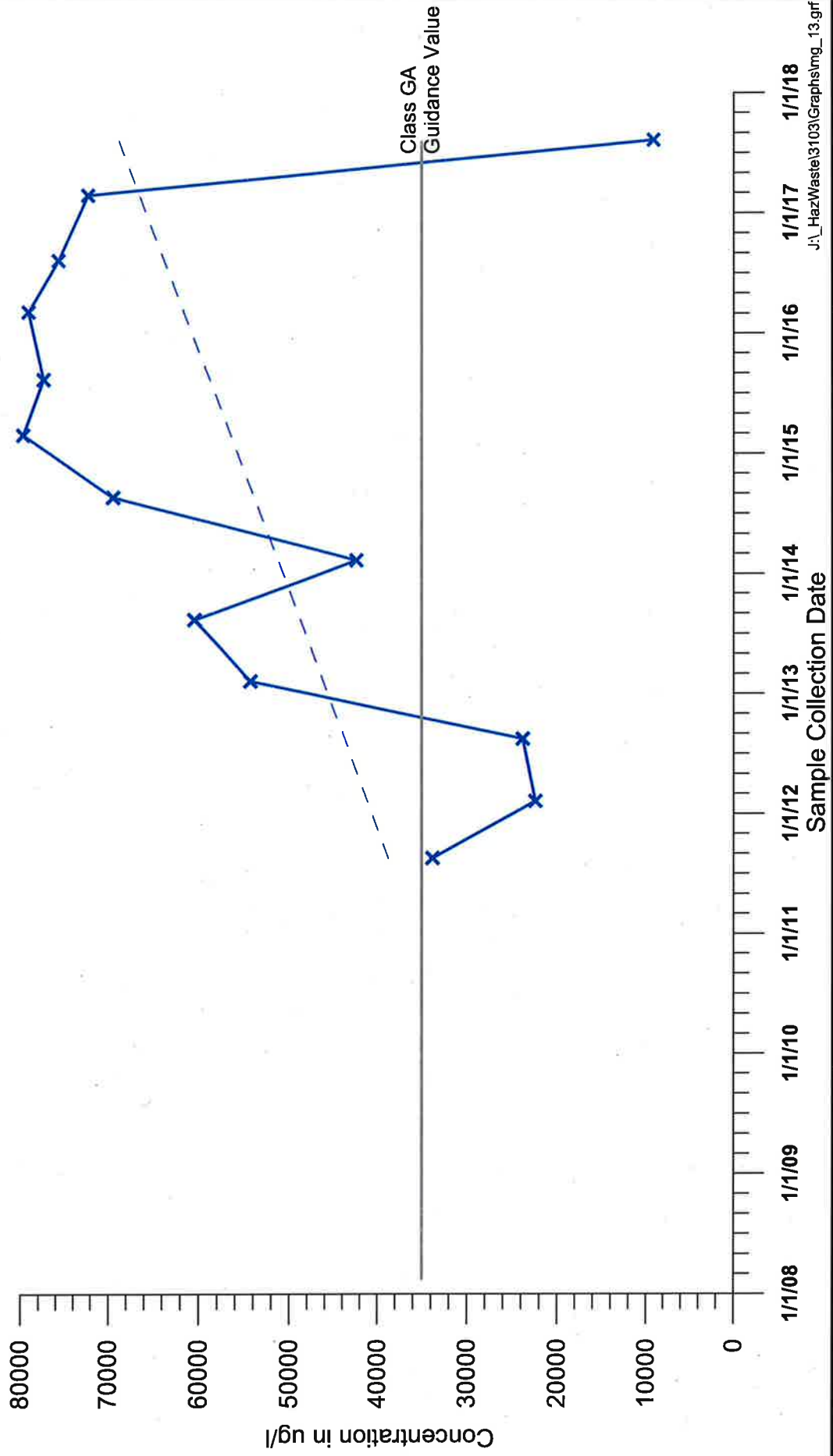


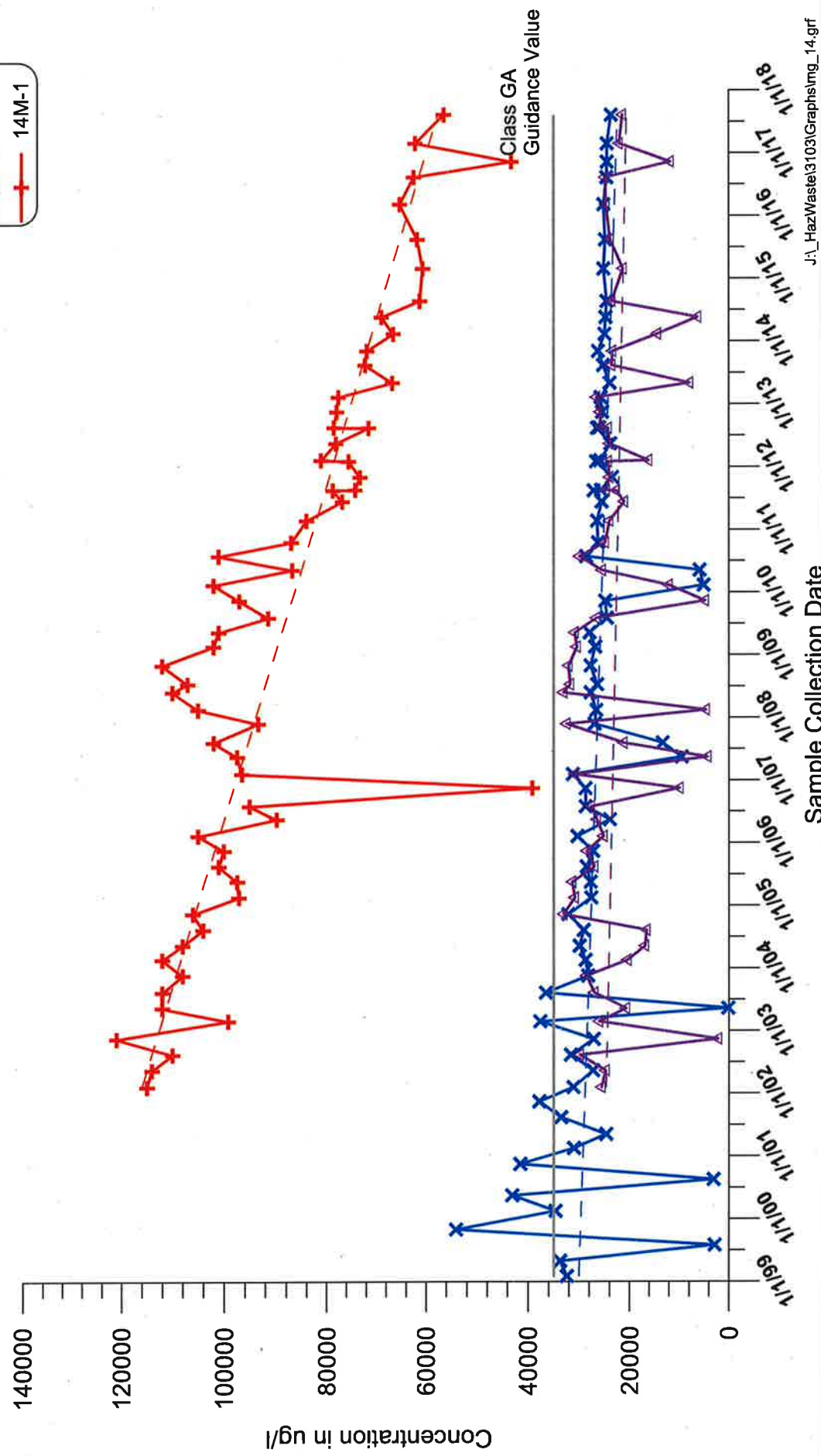
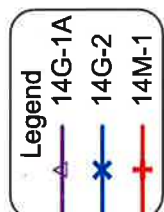
**Blydenburgh Road Landfill Complex
Historical Magnesium Data for Monitoring Well 4 Cluster**

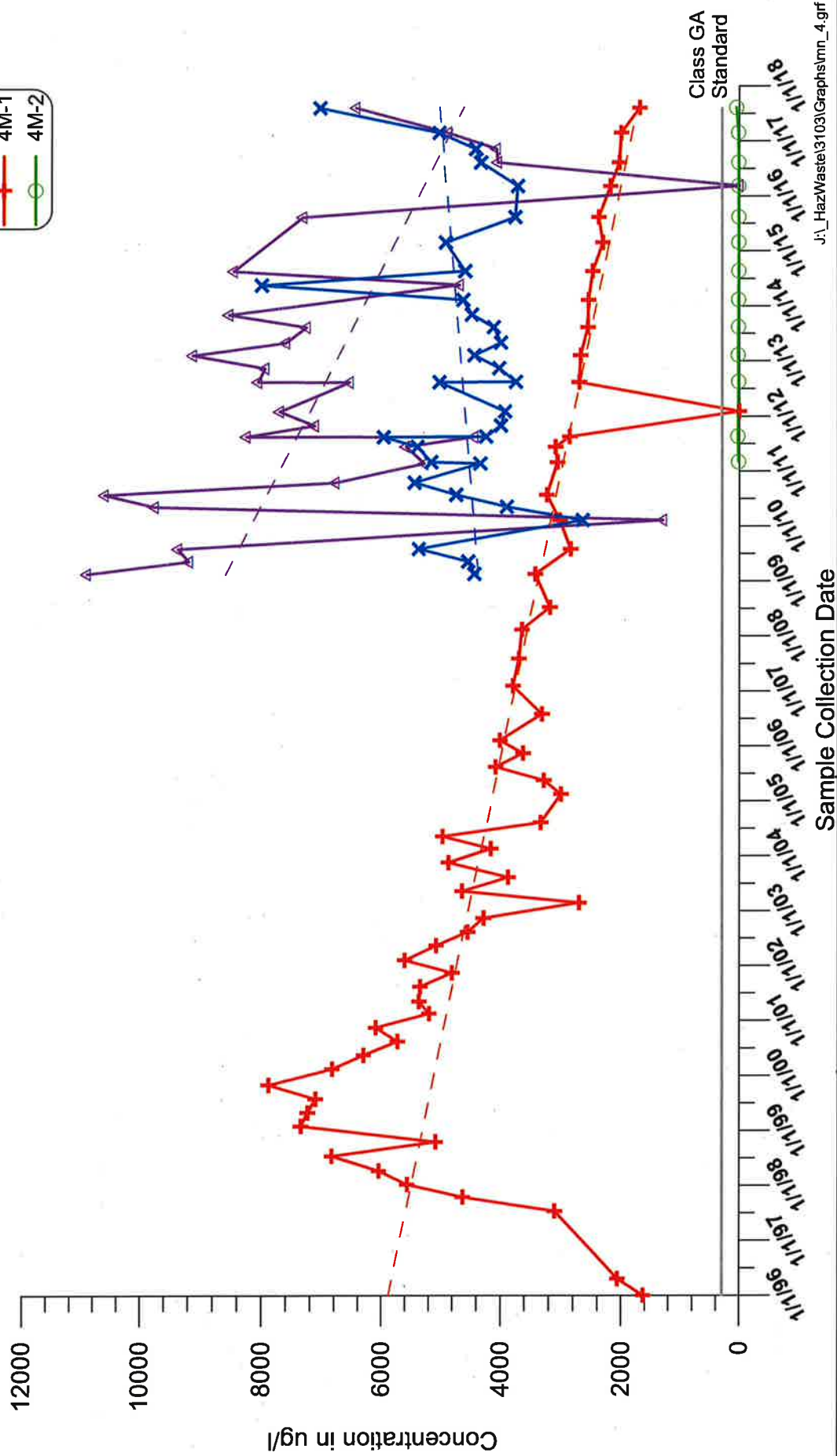
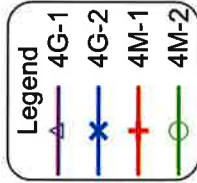
J:_HazWaste\3103\Graphs\mg_4.grf









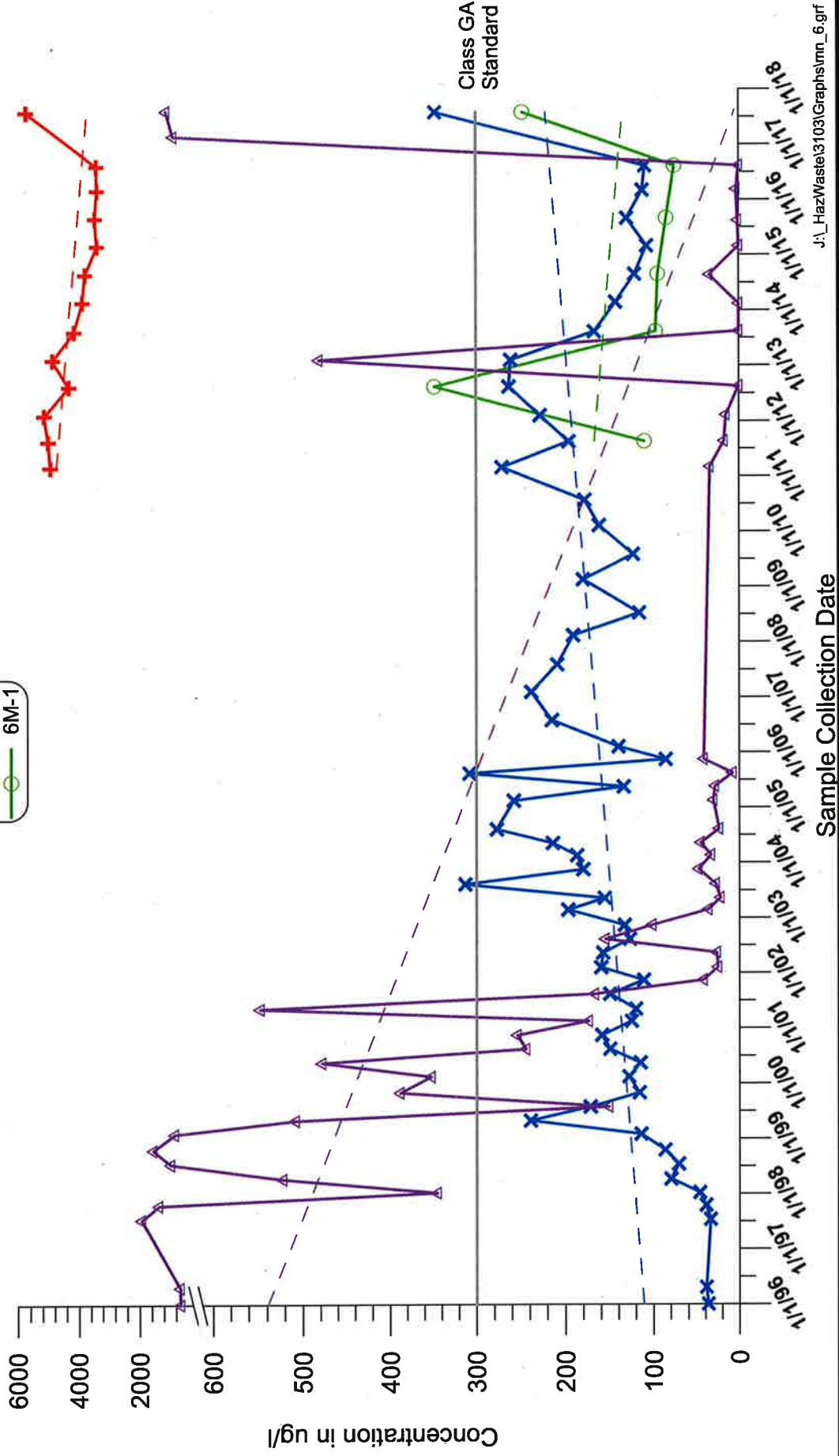
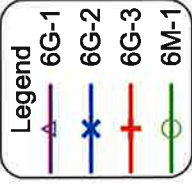


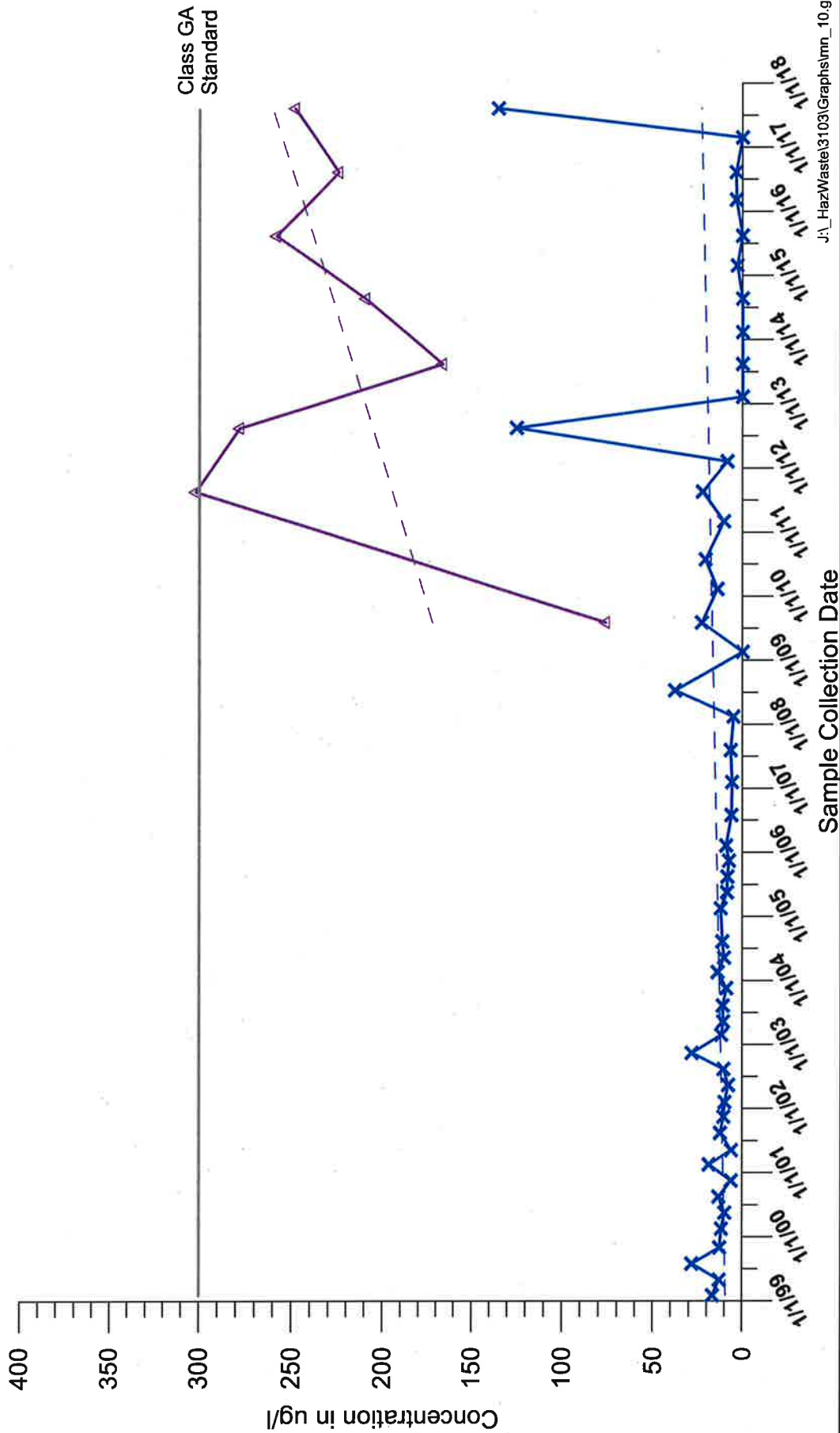
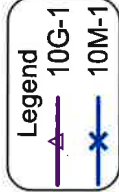
J:_HazWaste\3103\Graphs\mn_4.grf



**Blydenburgh Road Landfill Complex
Historical Manganese Data for Monitoring Well Cluster 4**

**Appendix
C-2**



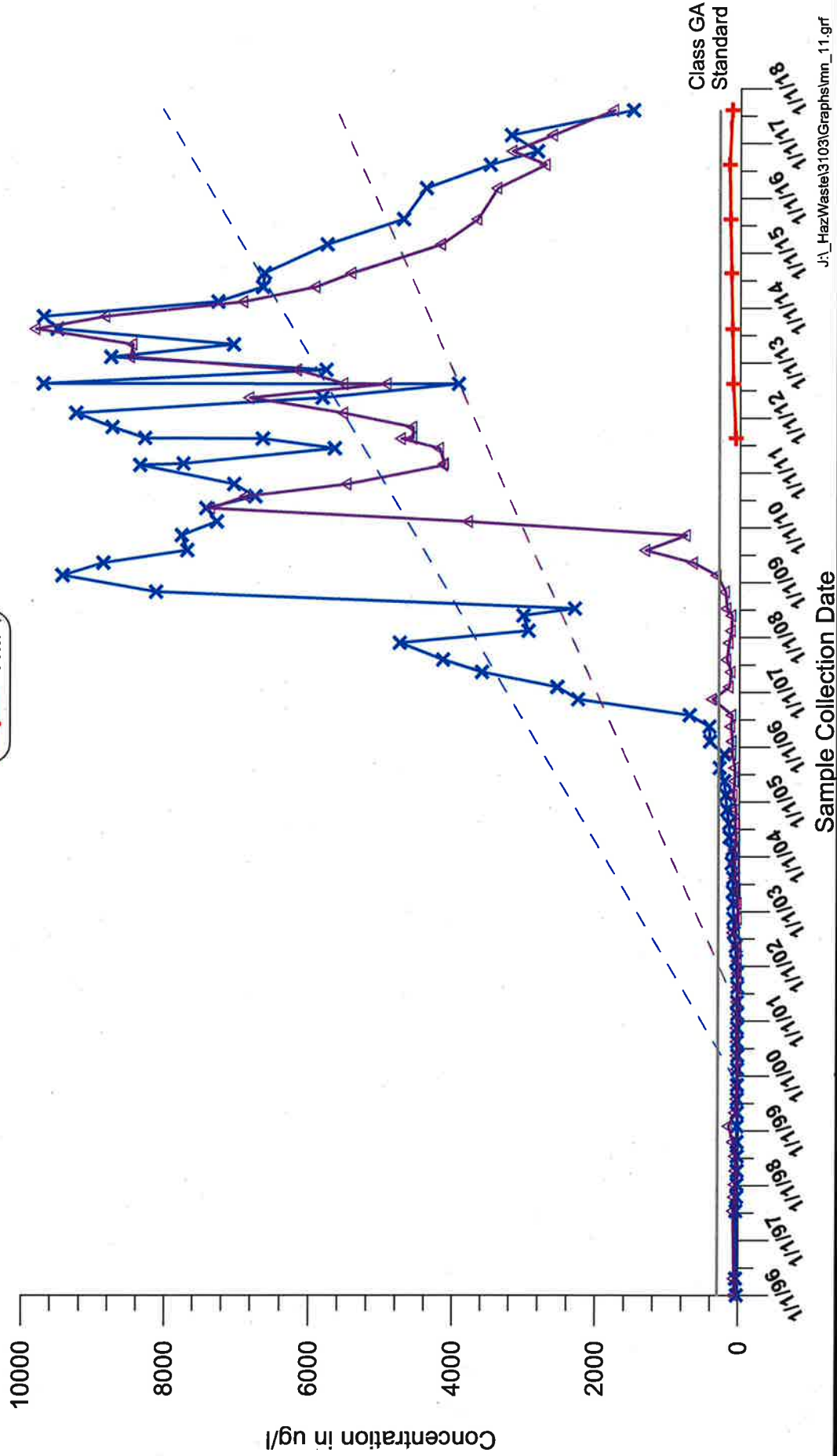
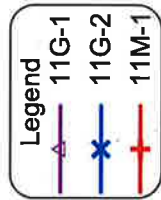


J:_HazWaste\3103\Graphs\mn_10.grf



Blydenburgh Road Landfill Complex
Historical Manganese Data for Monitoring Well Cluster 10

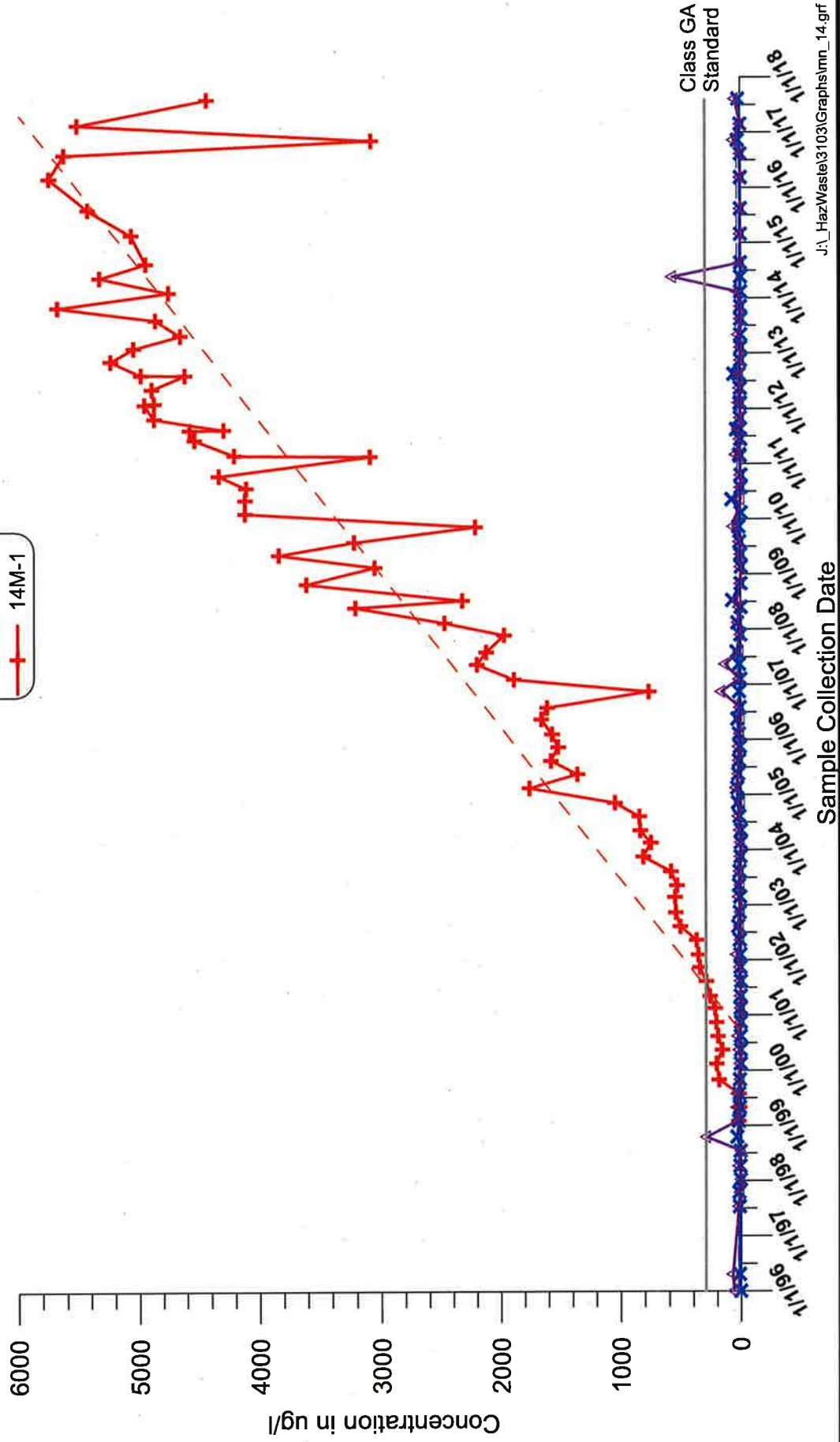
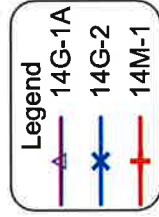
Appendix C-2



J:_HazWaste\3103\Graphs\mm_11.grf

Sample Collection Date

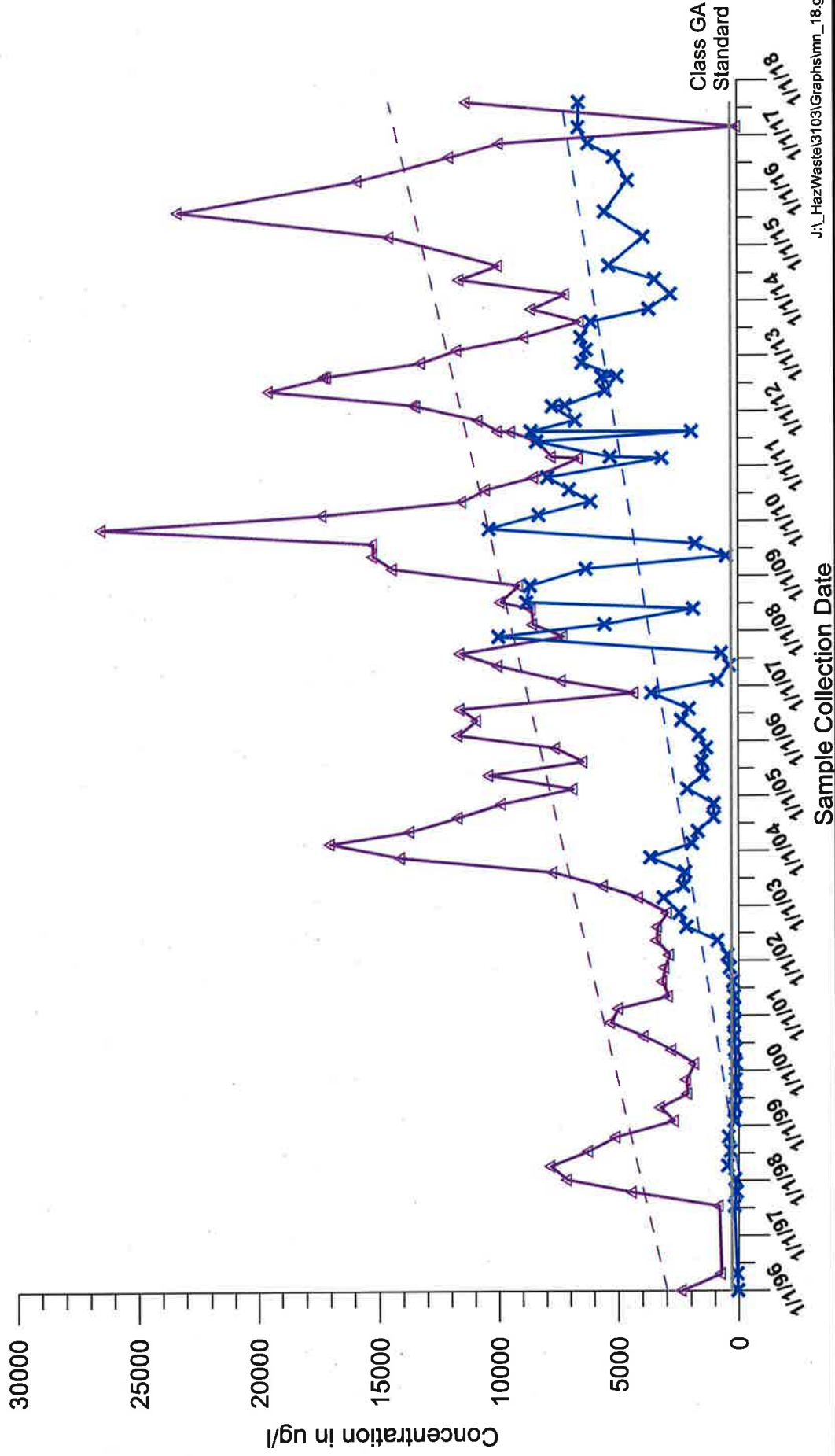
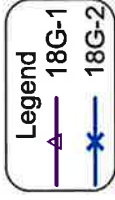
Class GA
Standard



J:_HazWaste\3103\Graphs\mn_14.grf



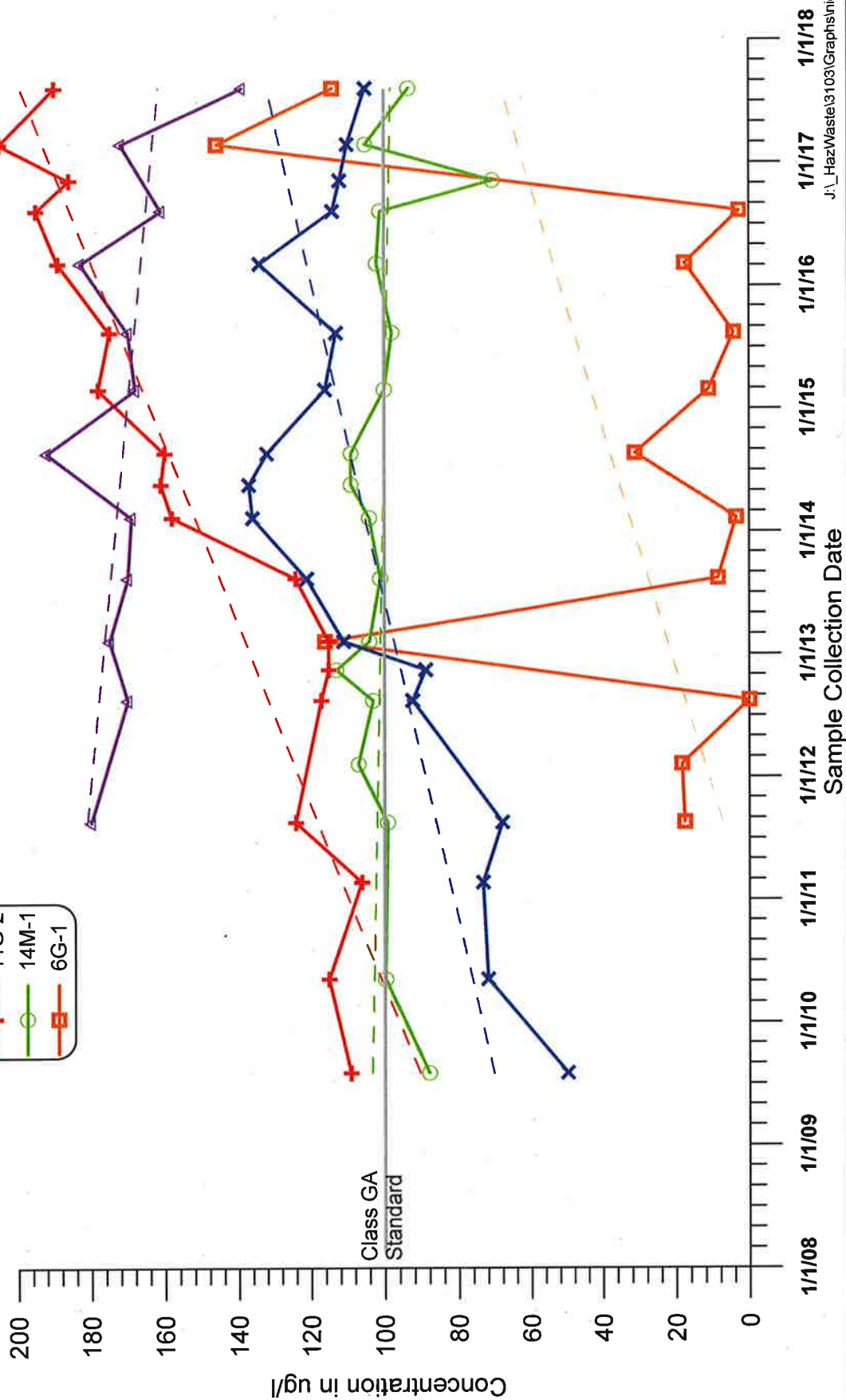
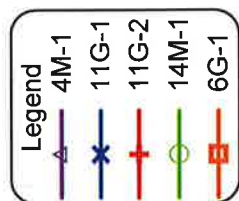
Blydenburgh Road Landfill Complex
Historical Manganese Data for Monitoring Well Cluster 14

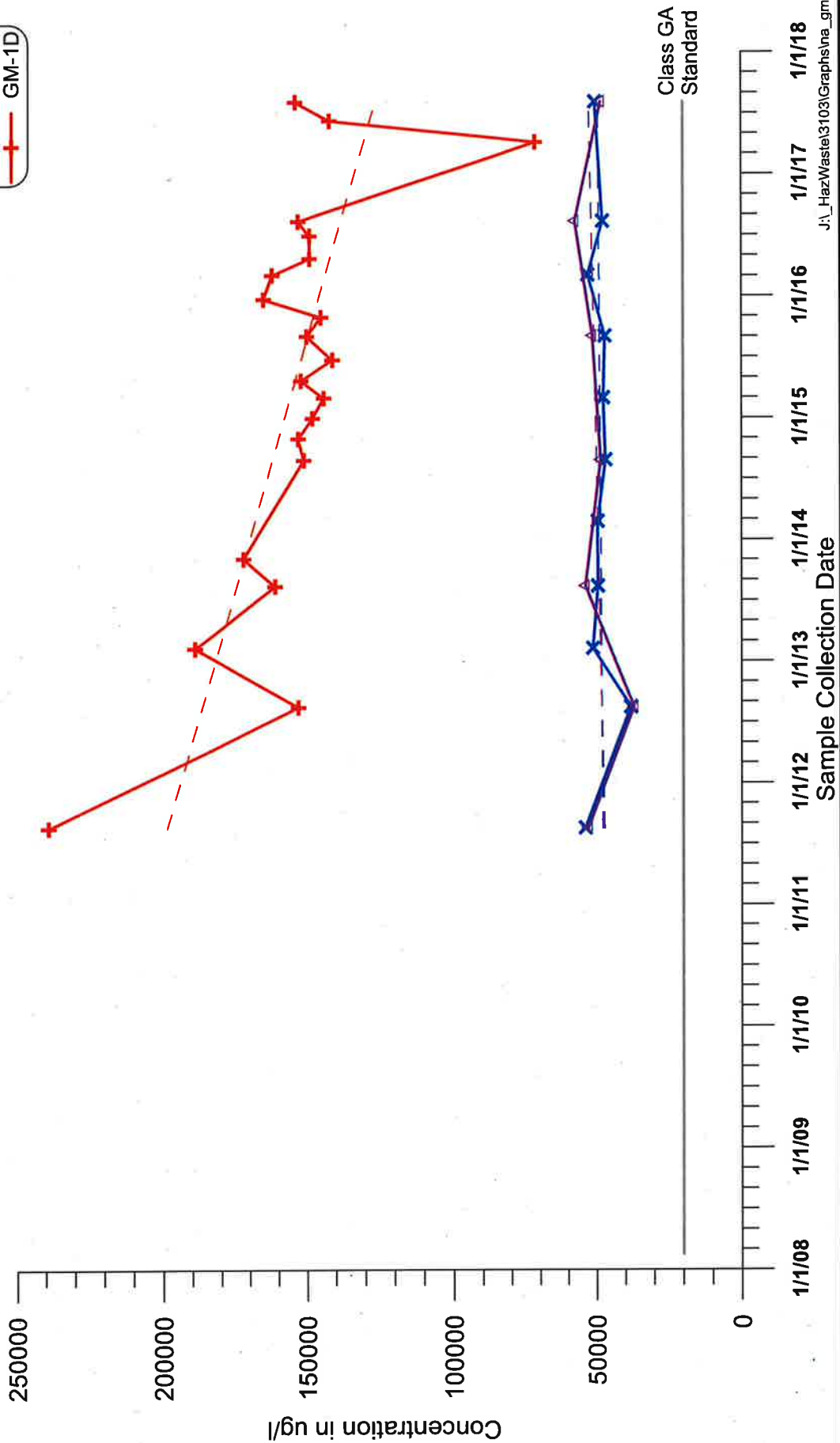
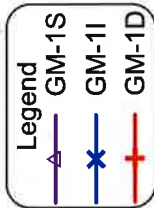


**Blydenburgh Road Landfill Complex
Historical Nickel Data for Select Monitoring Wells**

**Appendix
C-2**

J:_HazWaste\3103\Graphs\nickel.grf



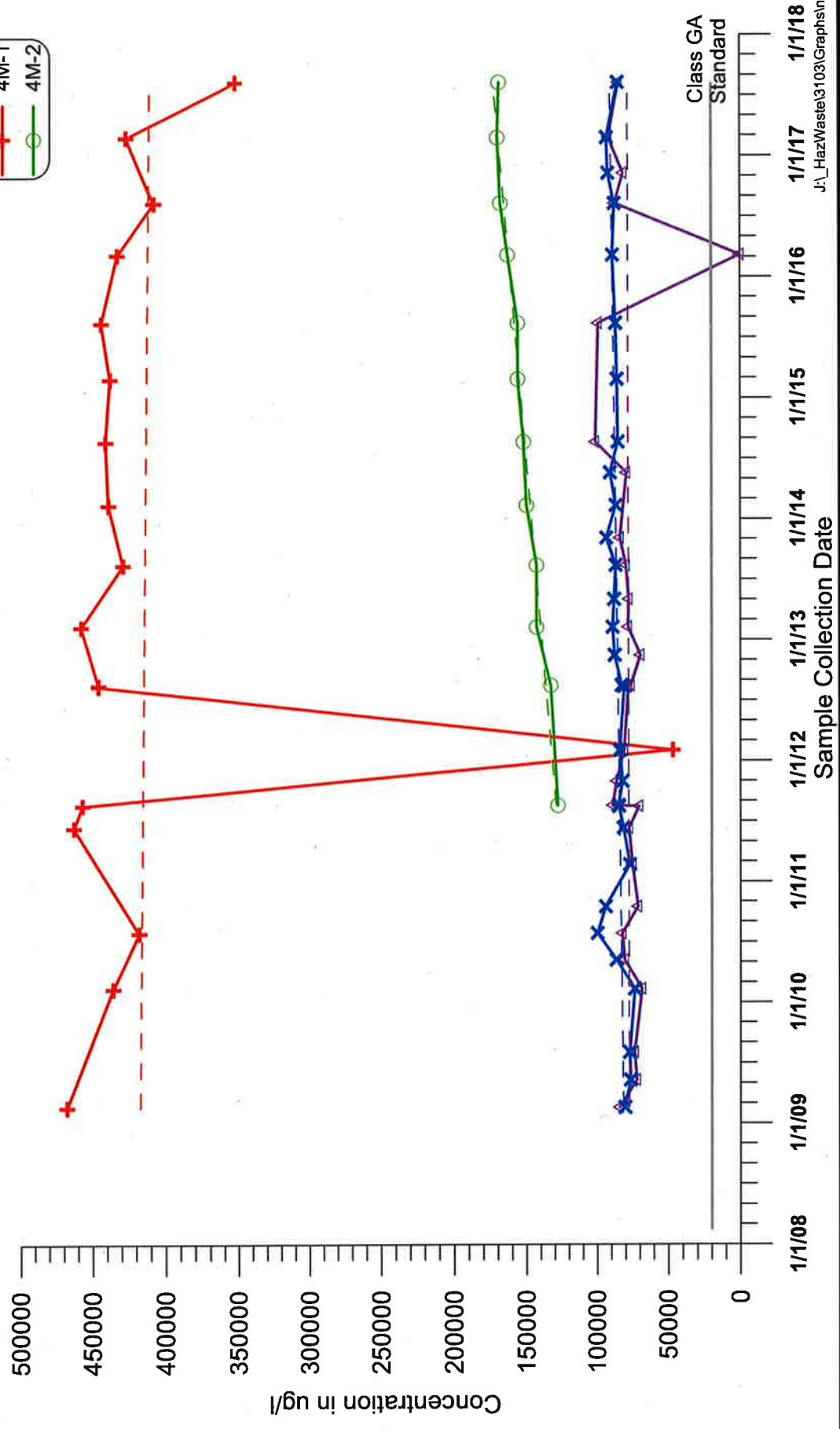
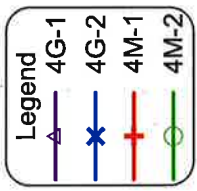


J:_HazWaste\3103\Graphs\na_gm1.grf

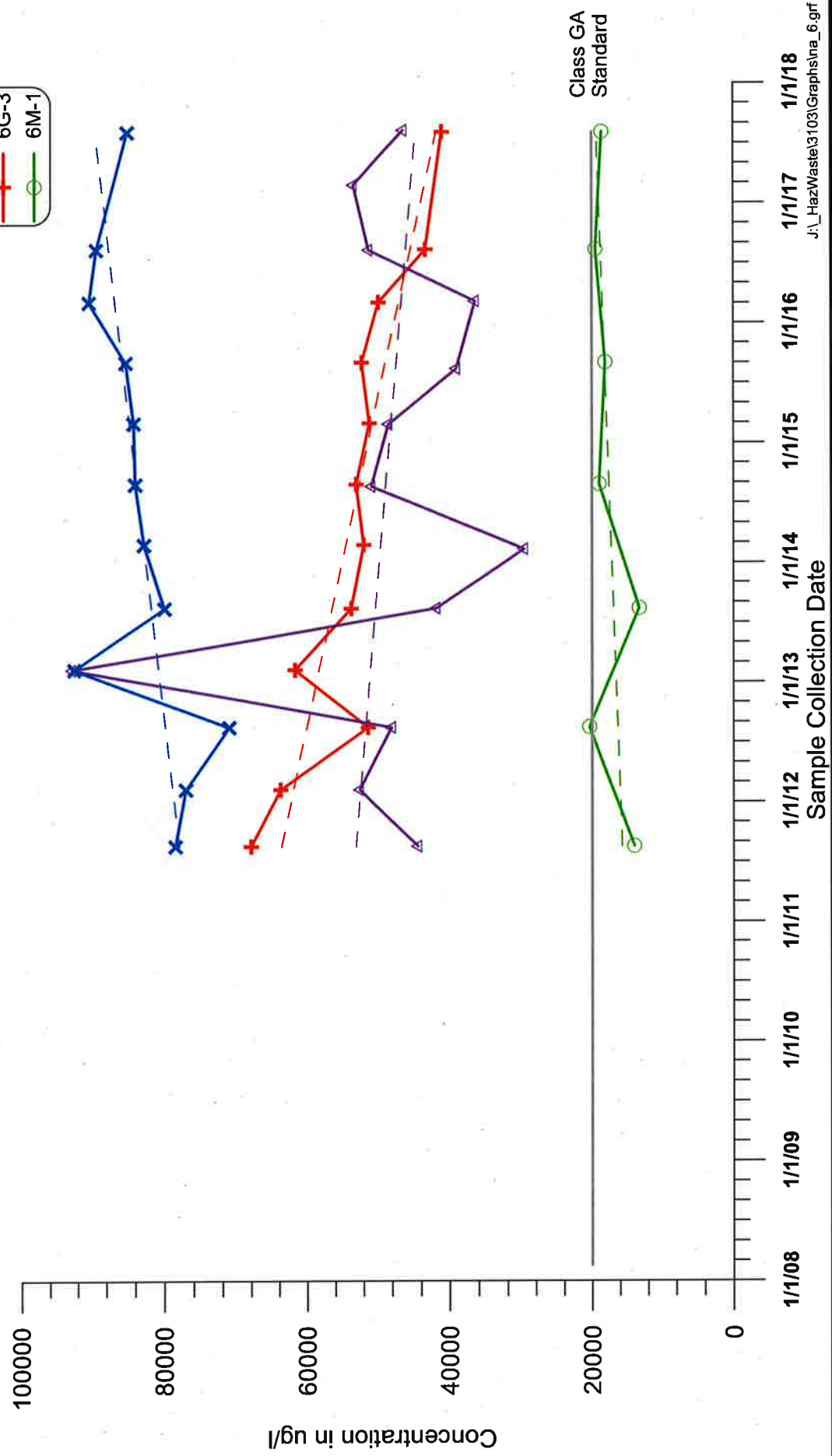
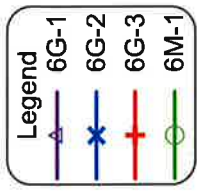


Blydenburgh Road Landfill Complex
Historical Sodium Data for Monitoring Well Cluster GM-1

Appendix
C-2



Blydenburgh Road Landfill Complex
Historical Sodium Data for Monitoring Well Cluster 4



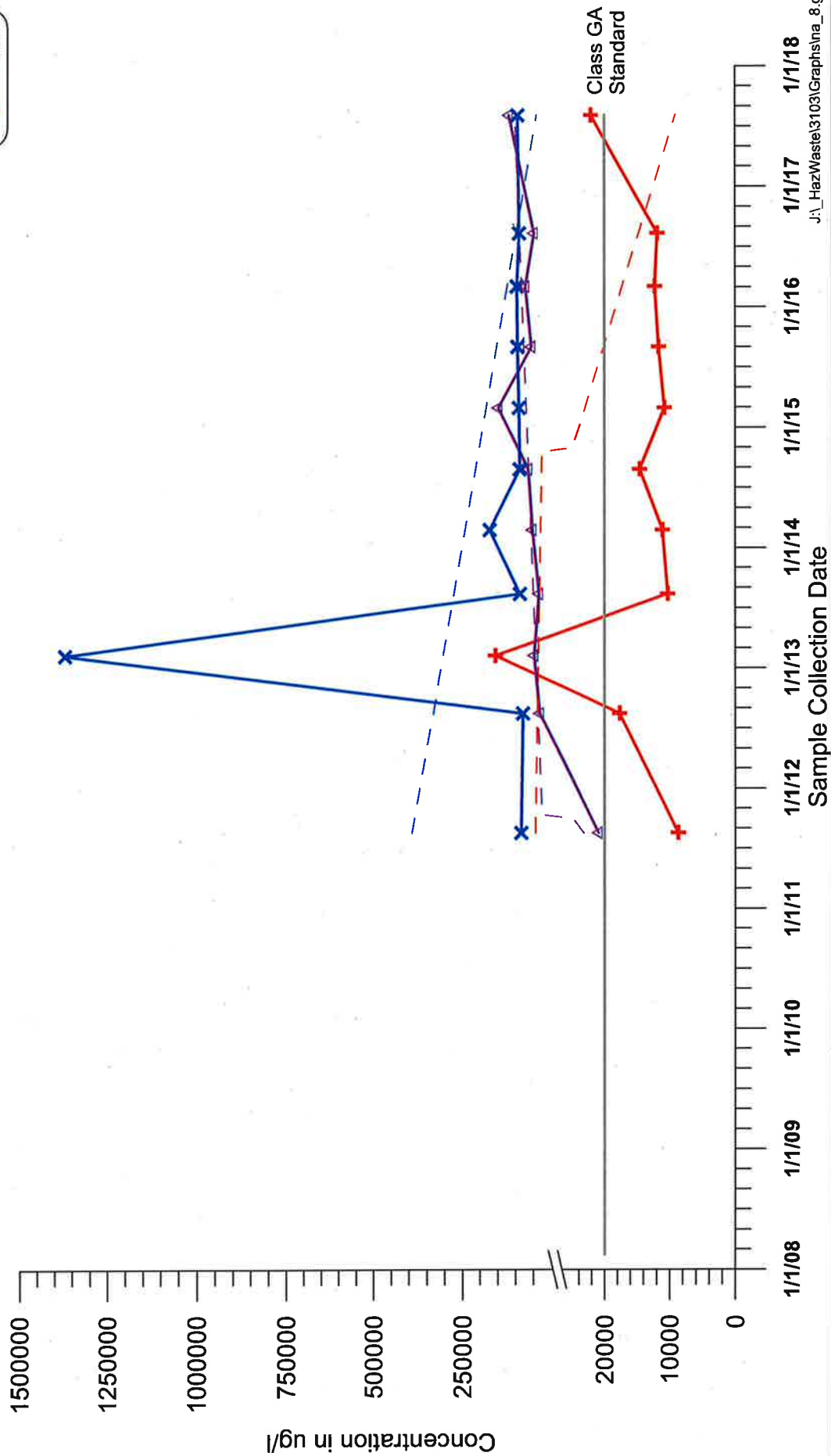


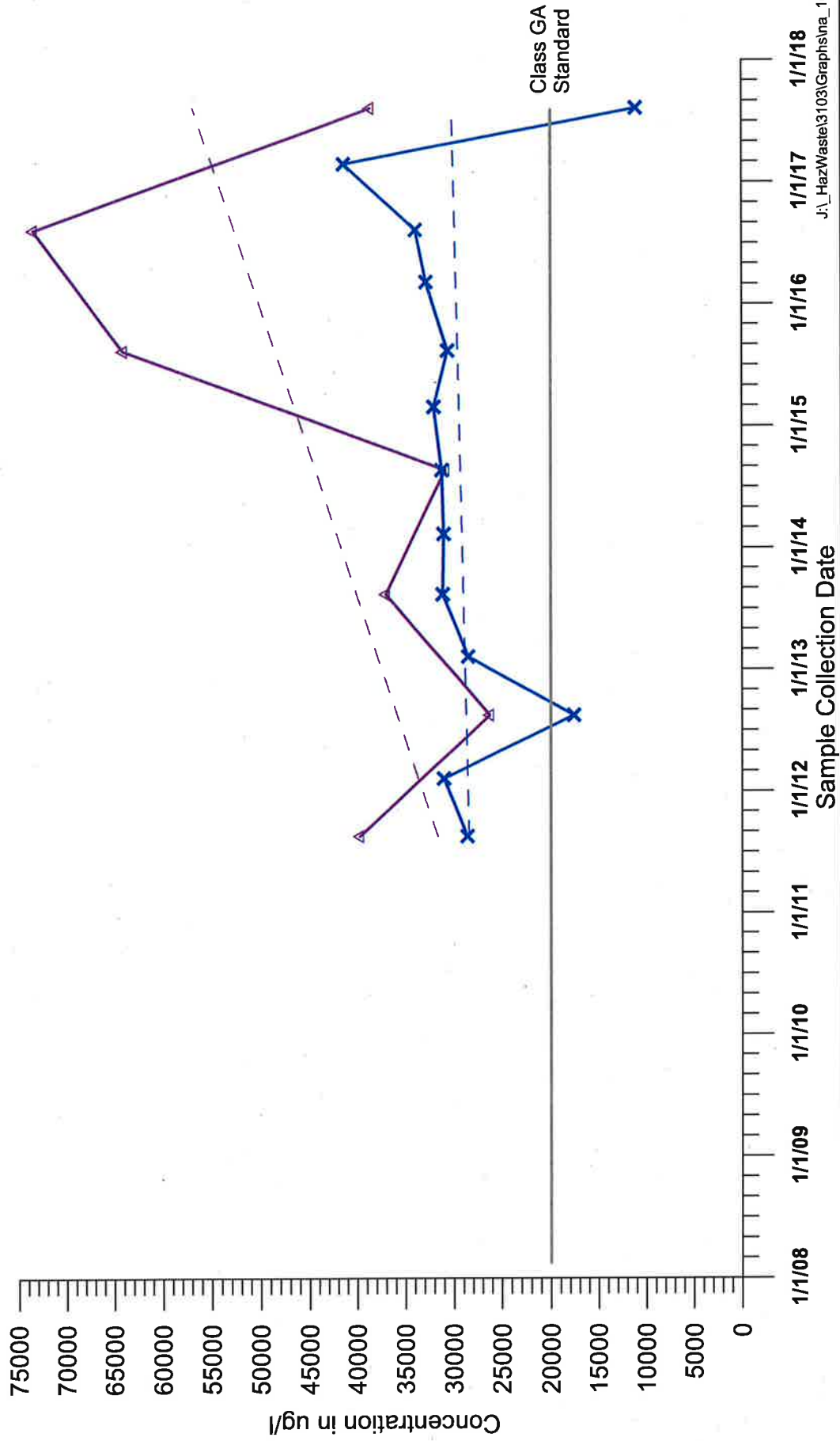
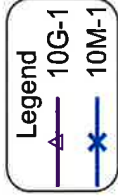
D&B ENGINEERS
AND
ARCHITECTS, P.C.

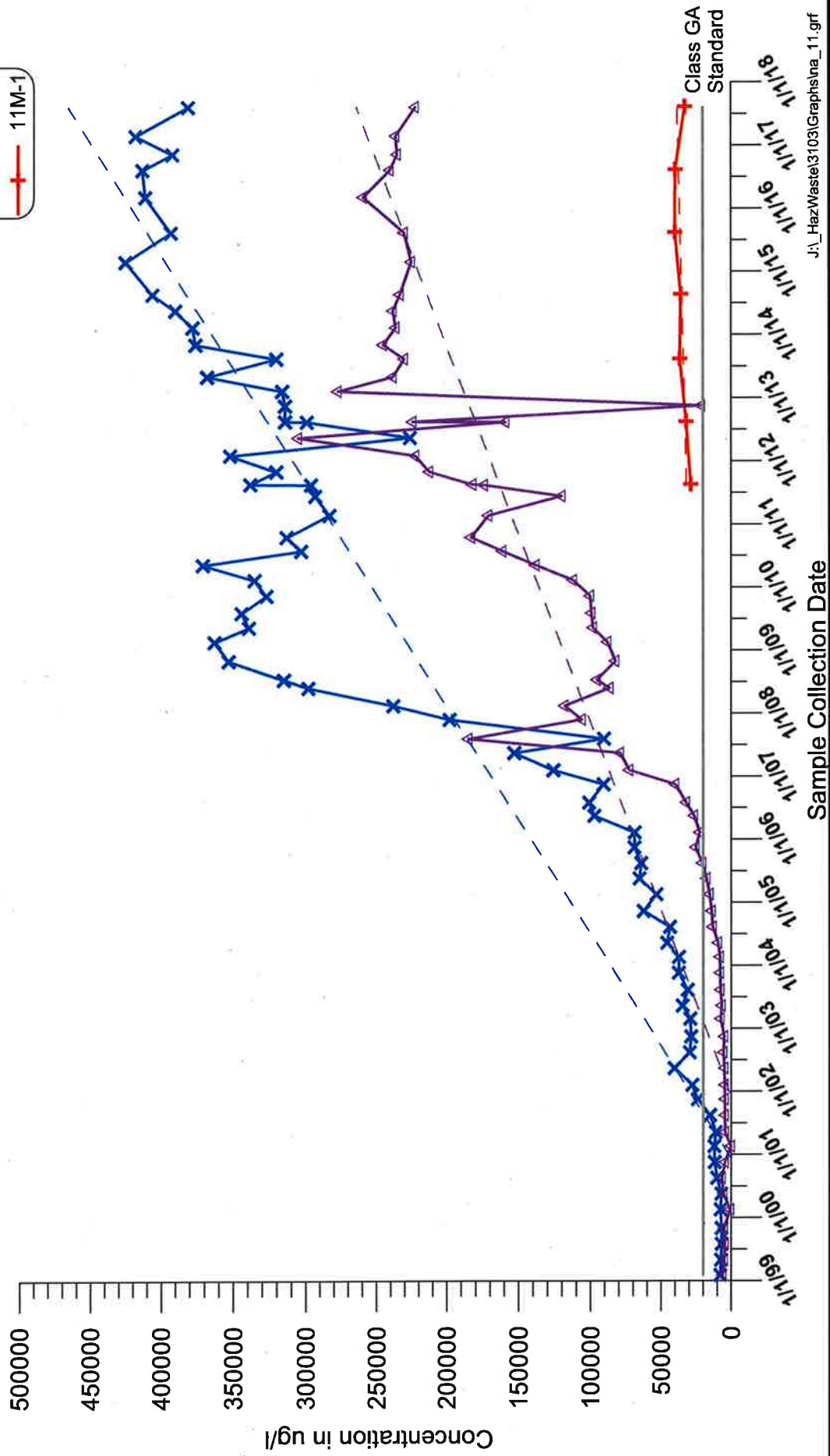
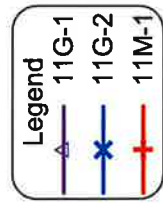
Blydenburgh Road Landfill Complex
Historical Sodium Data for Monitoring Well Cluster 8

Appendix
C-2

J:_HazWaste\3103\Graphs\hna_8.grf







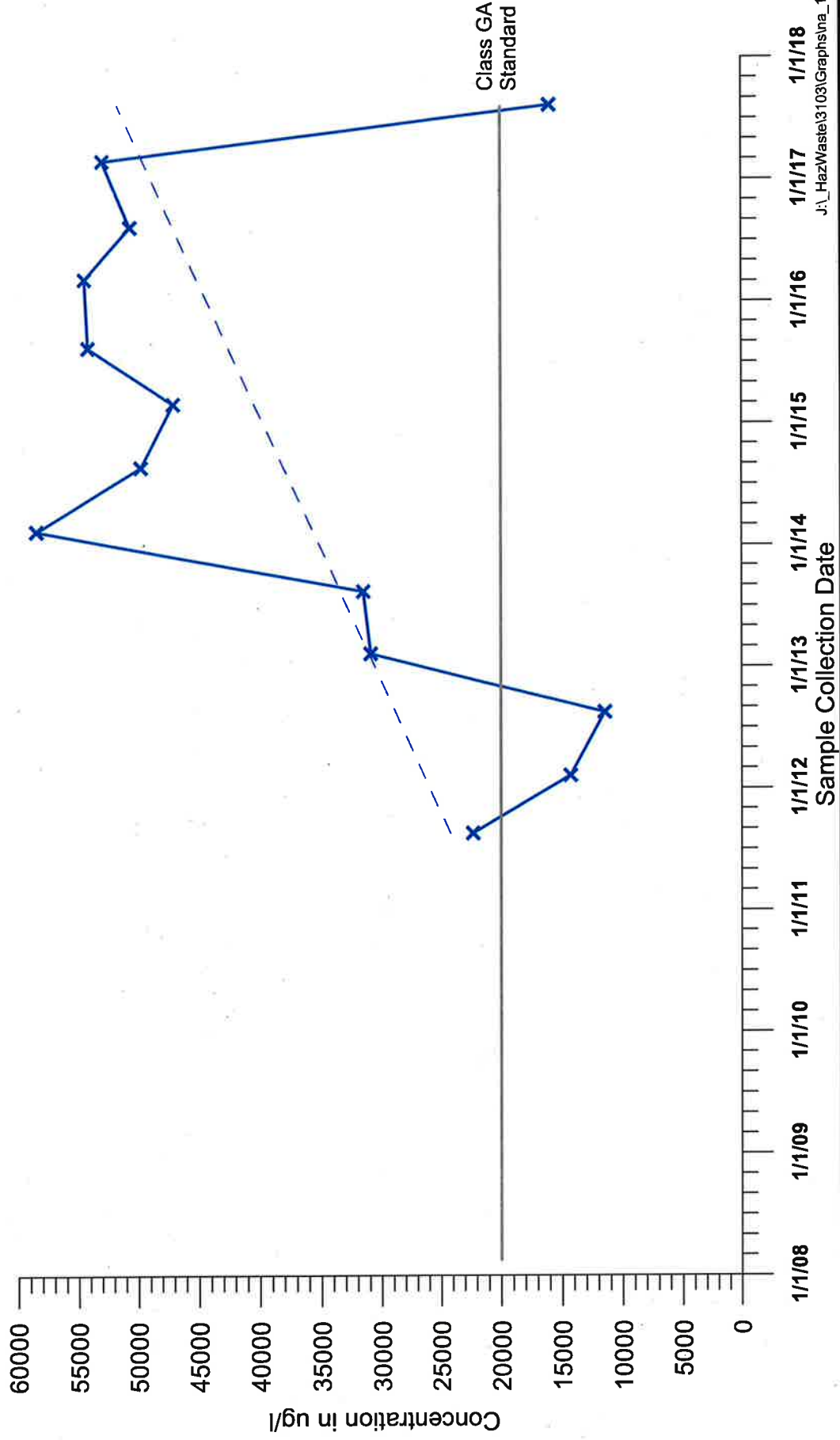
J:_HazWaste\3103\Graphs\na_11.grf

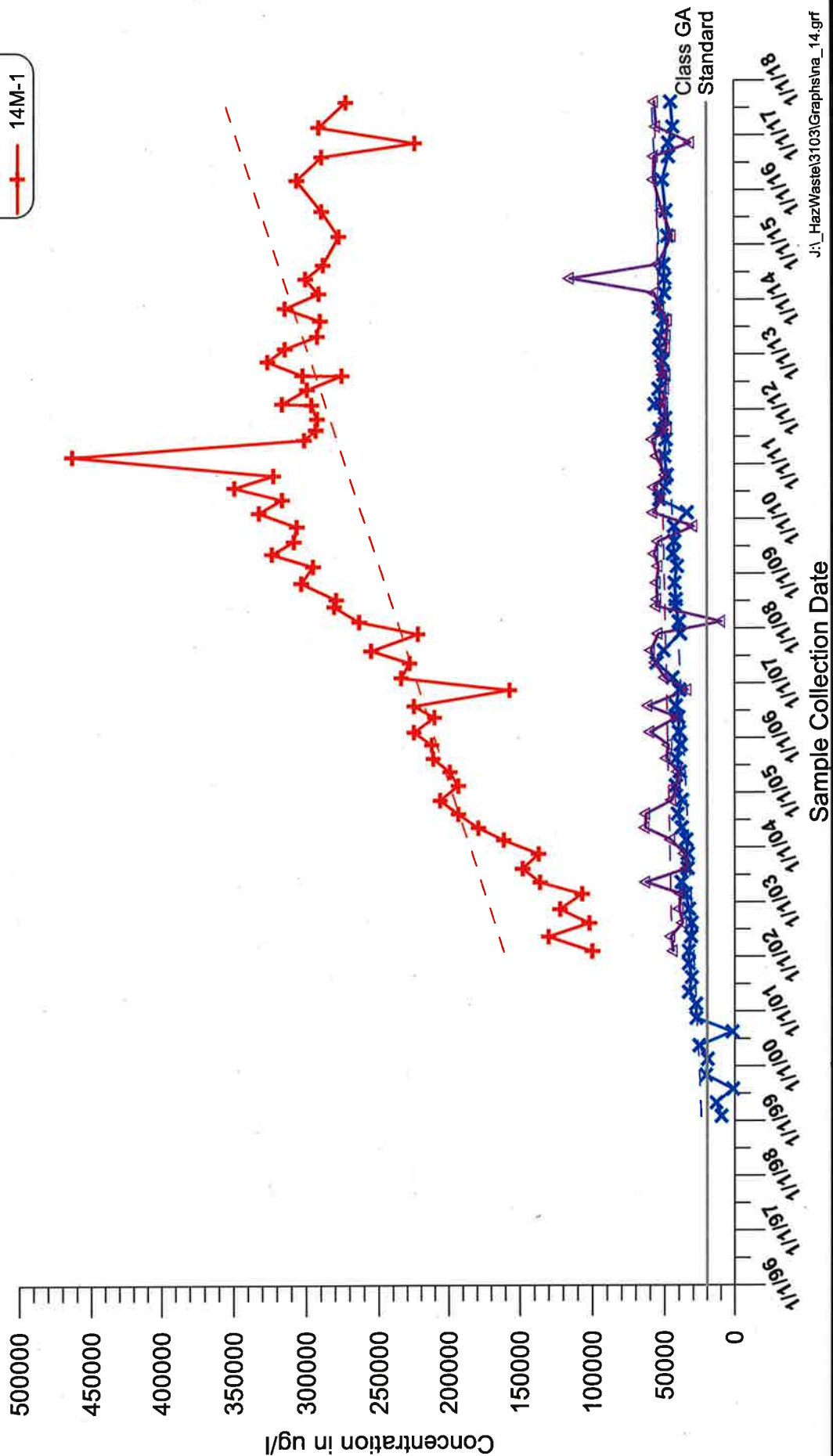
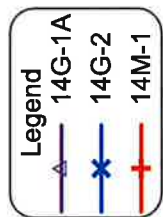
Sample Collection Date

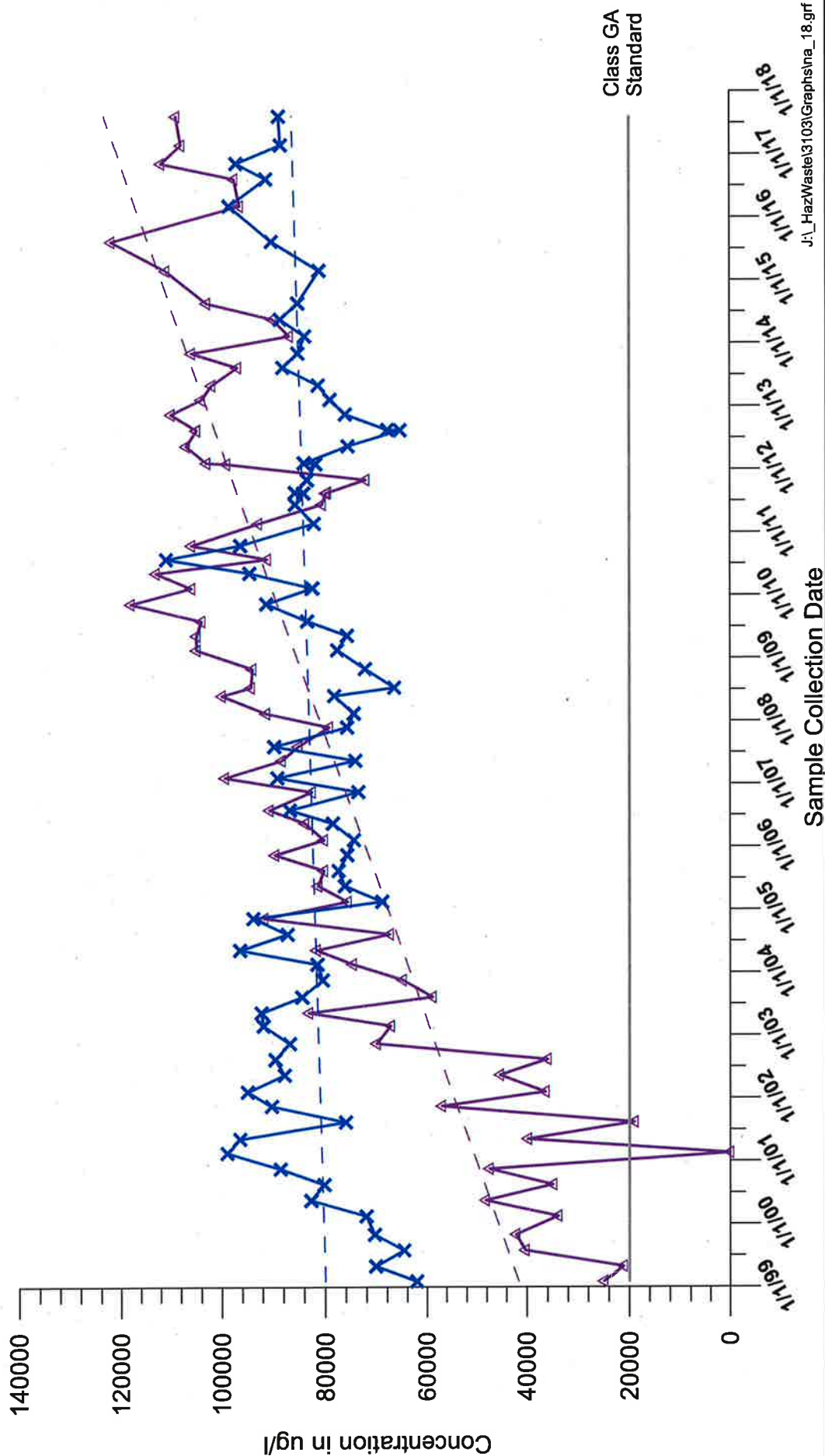
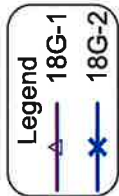
Appendix
C-2

Blydenburgh Road Landfill Complex
Historical Sodium Data for Monitoring Well 11 Cluster





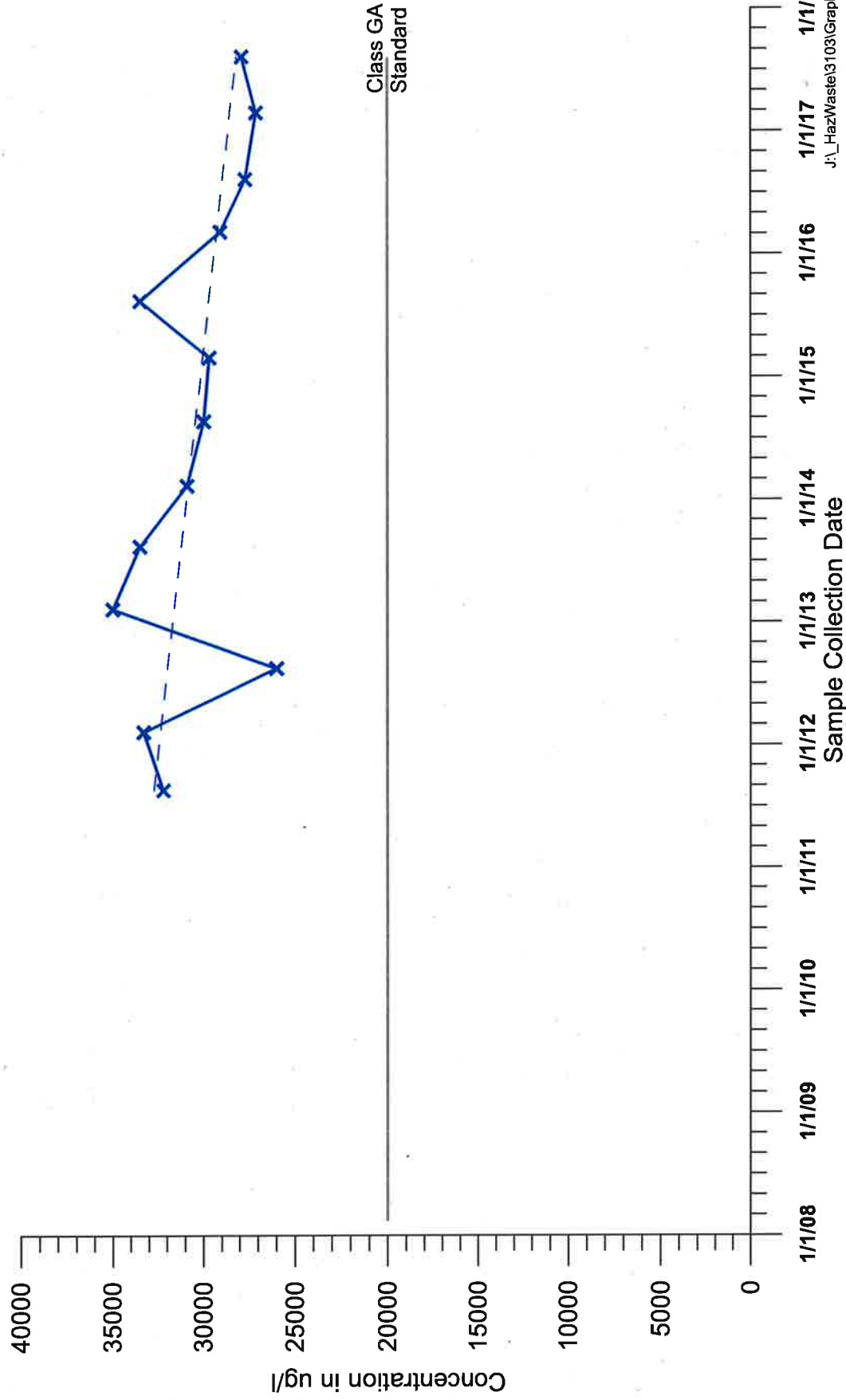


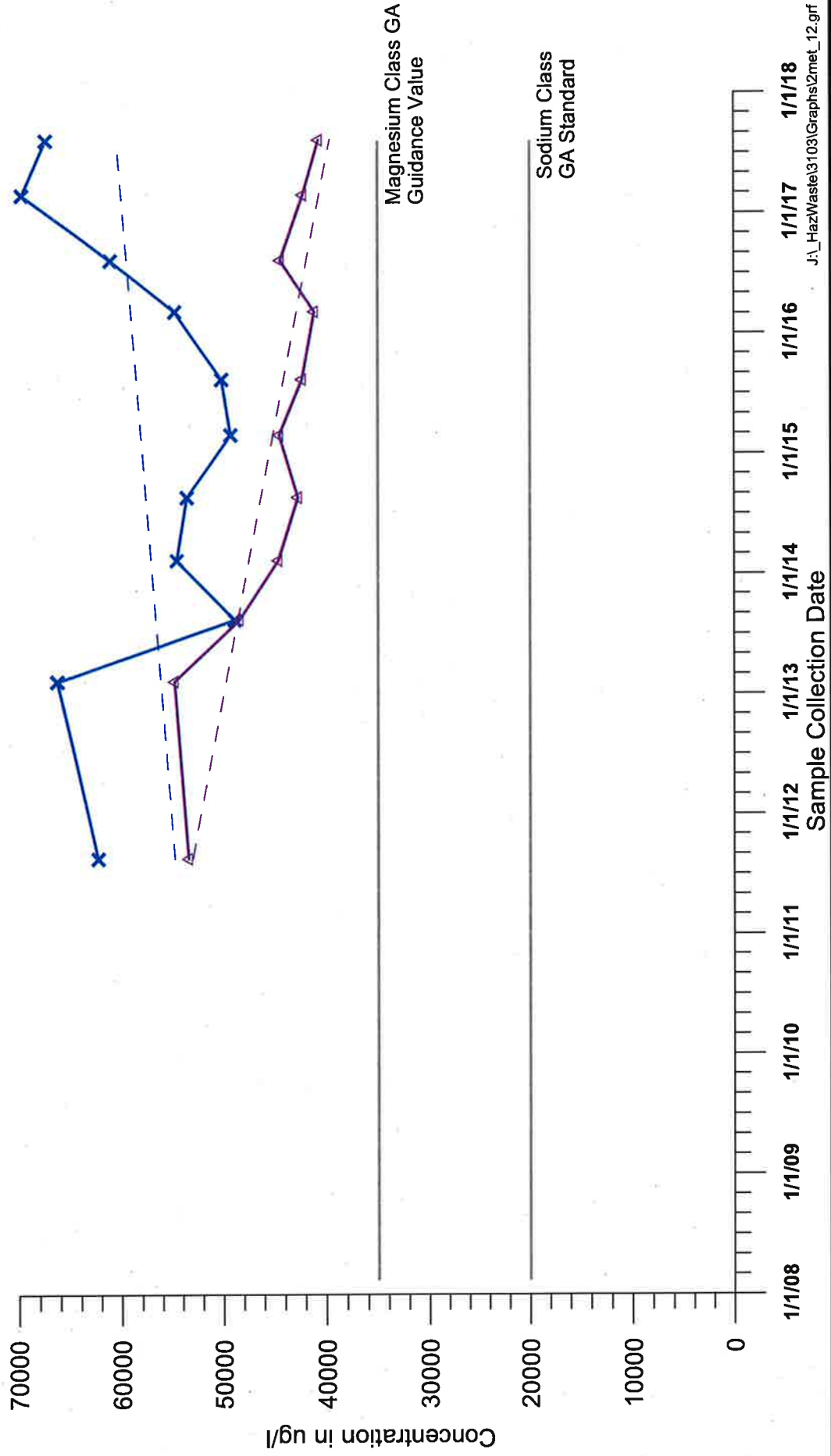
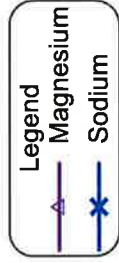


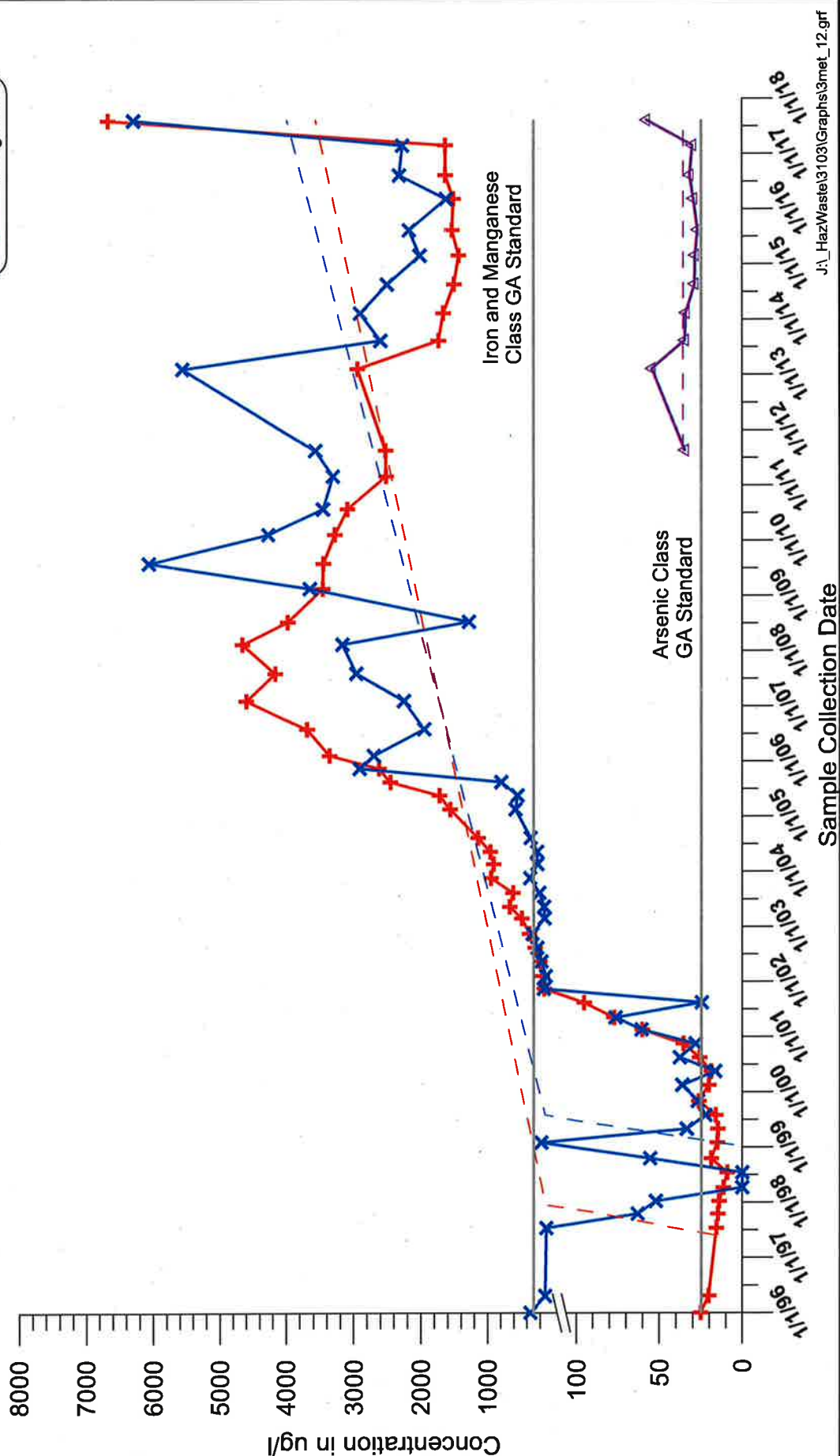
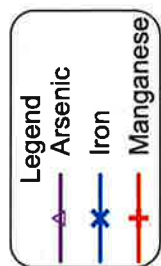
D&B ENGINEERS
AND
ARCHITECTS, P.C.

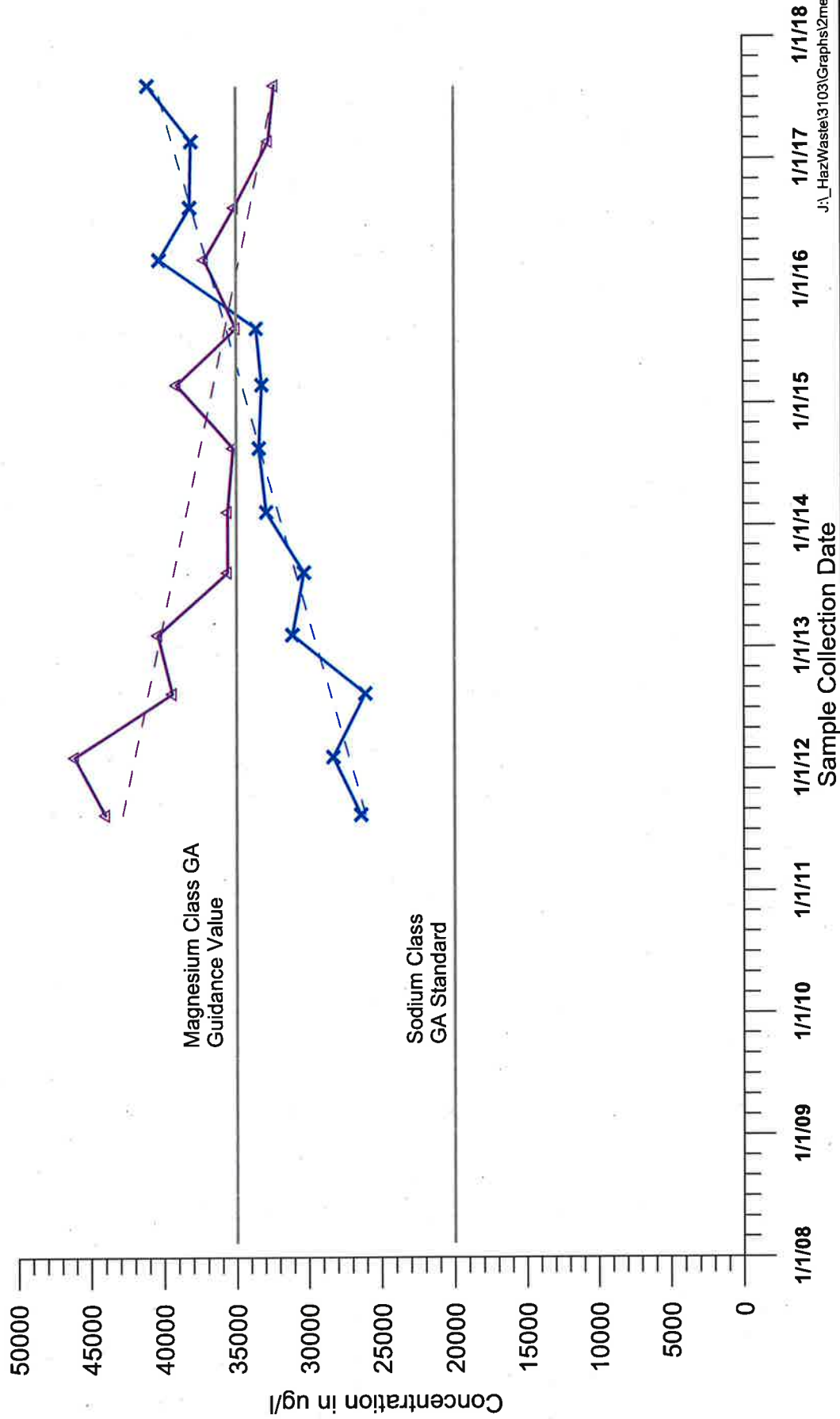
Blydenburgh Road Landfill Complex Historical Sodium Data for Monitoring Well 18 Cluster

Appendix C-2



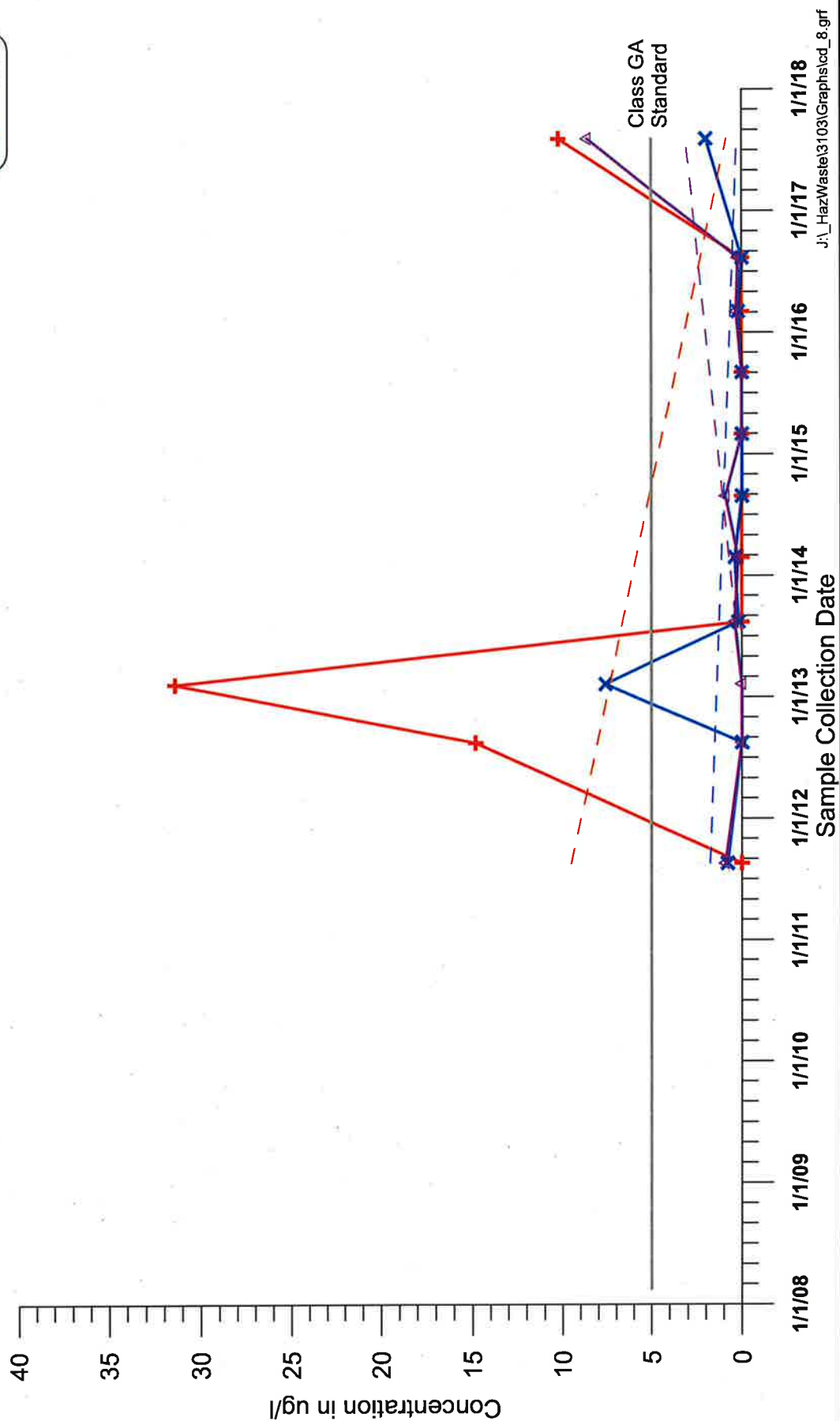


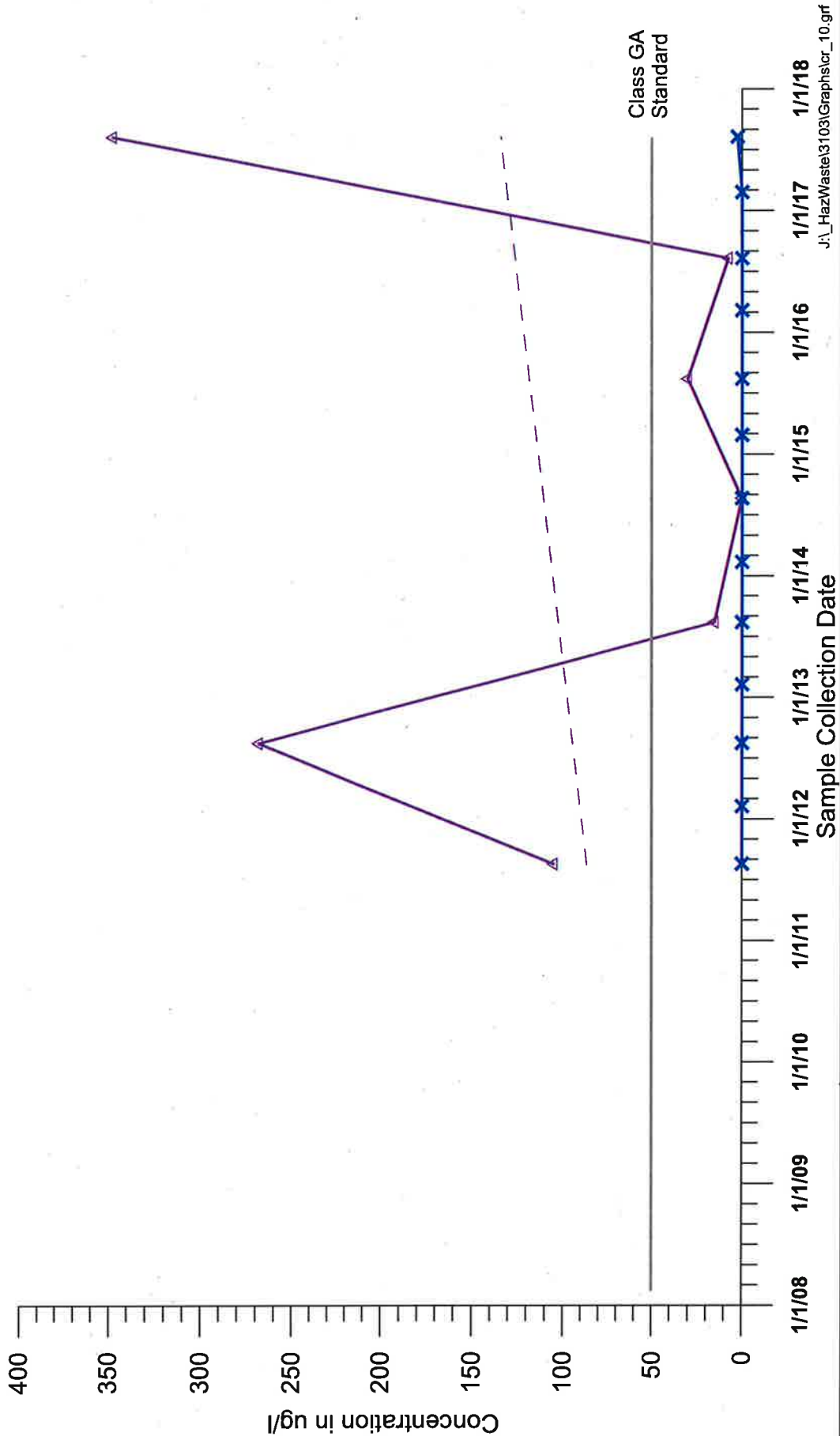
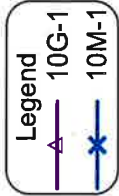




**Blydenburgh Road Landfill Complex
Historical Cadmium Data for Monitoring Well Cluster 8**

**Appendix
C-2**





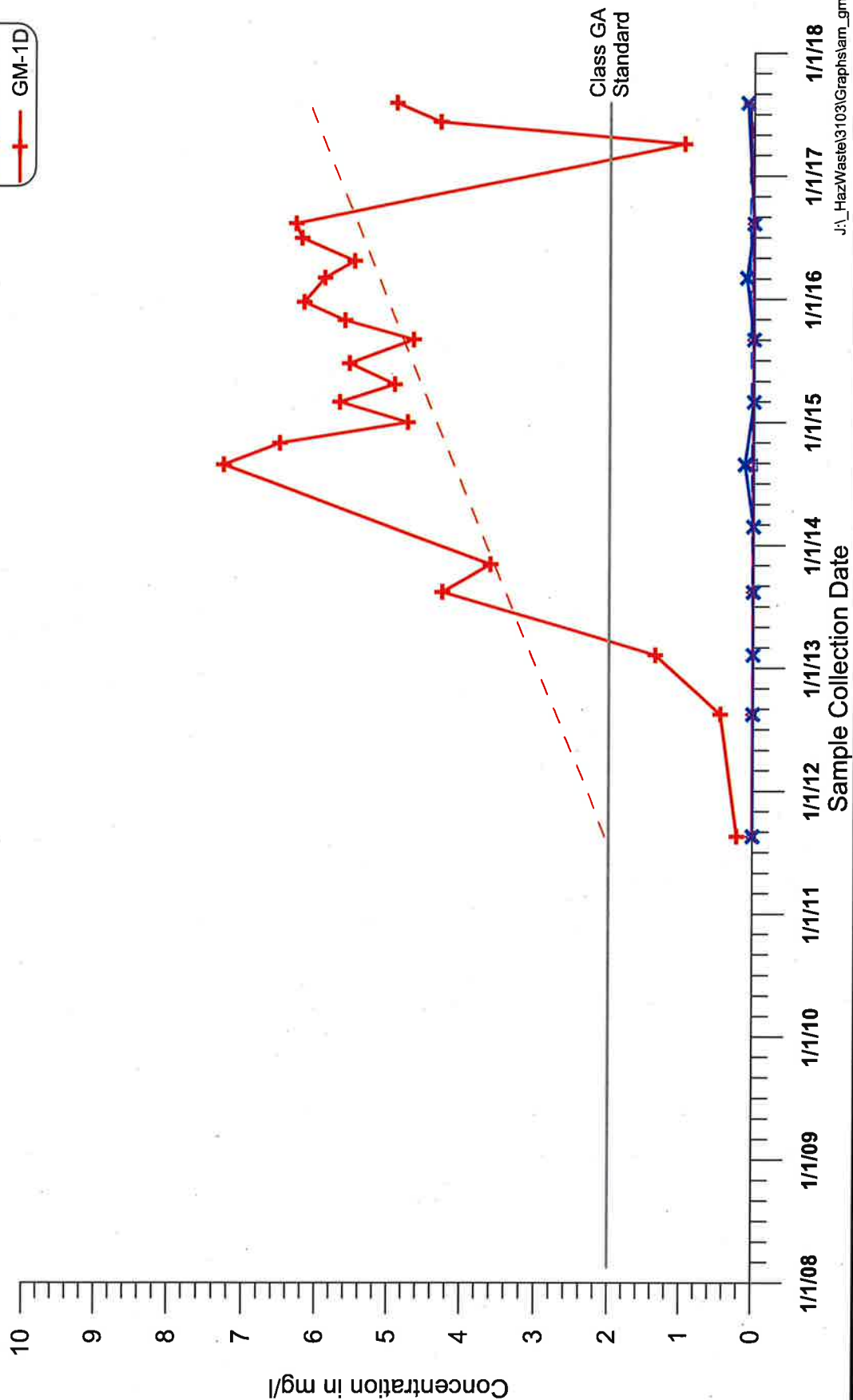
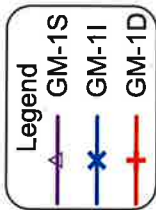
J:_HazWaste\3103\Graphs\cr_10.grf

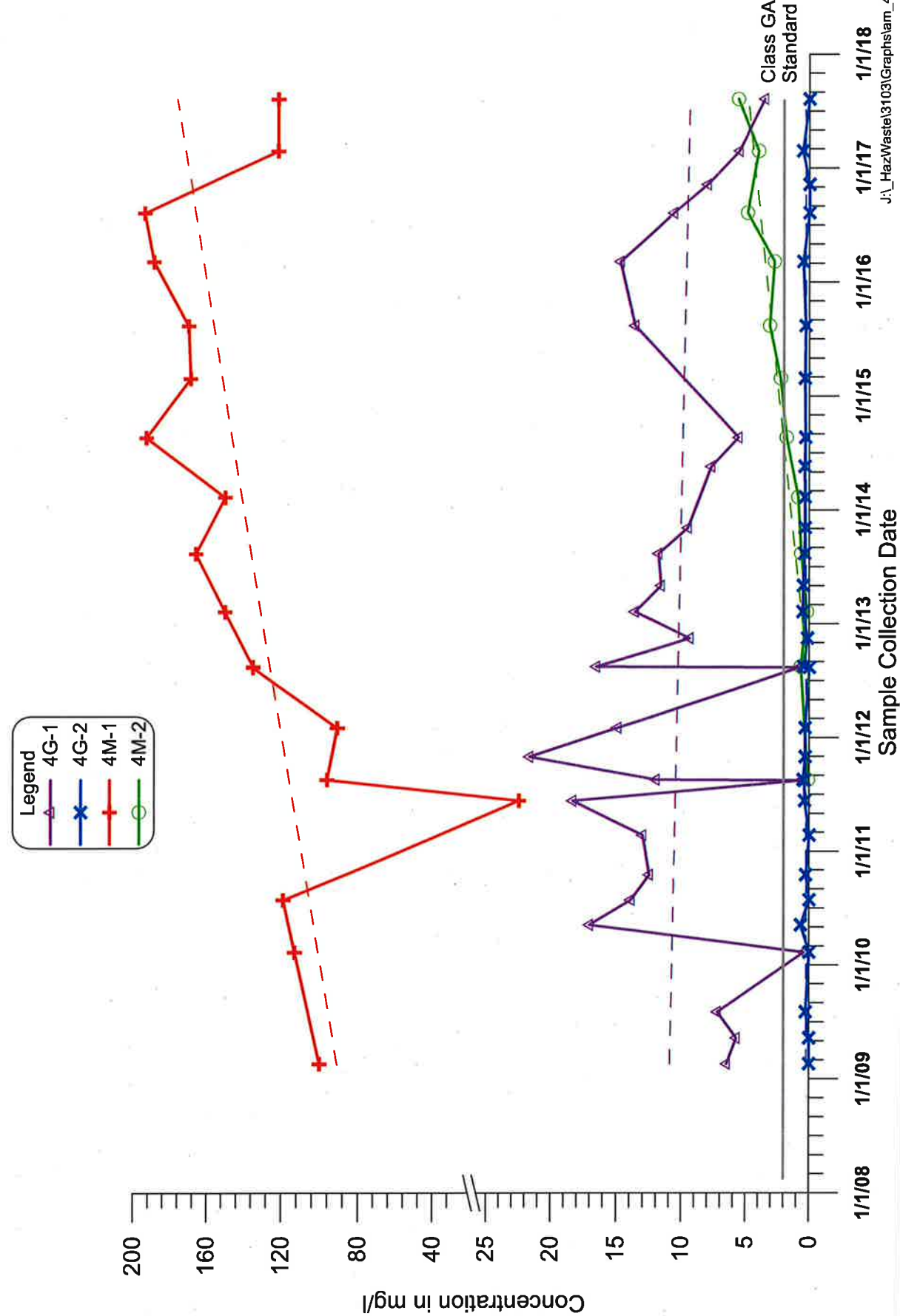


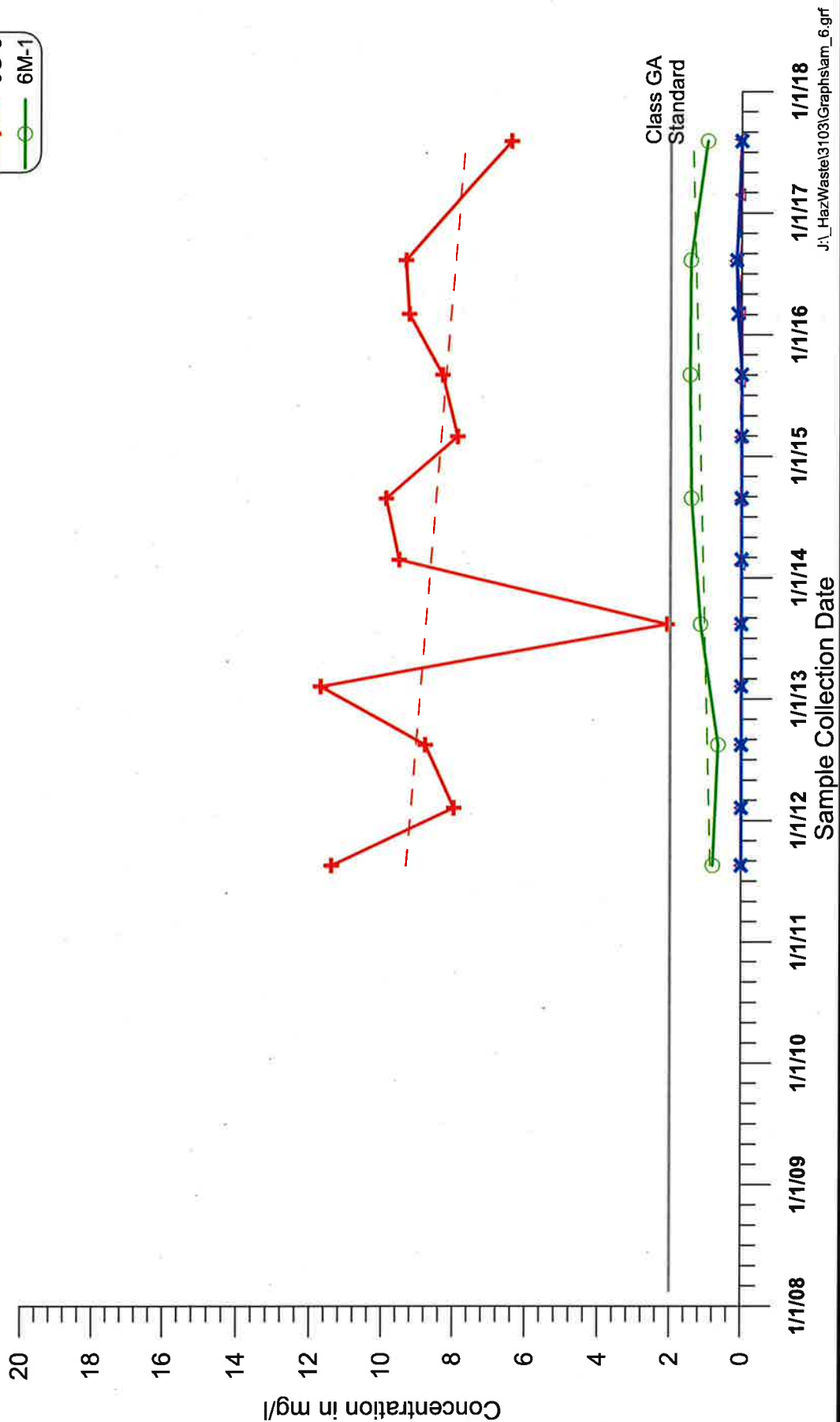
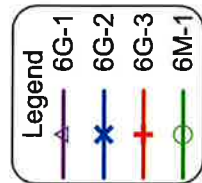
Blydenburgh Road Landfill Complex
Historical Chromium Data for Monitoring Well Cluster 10

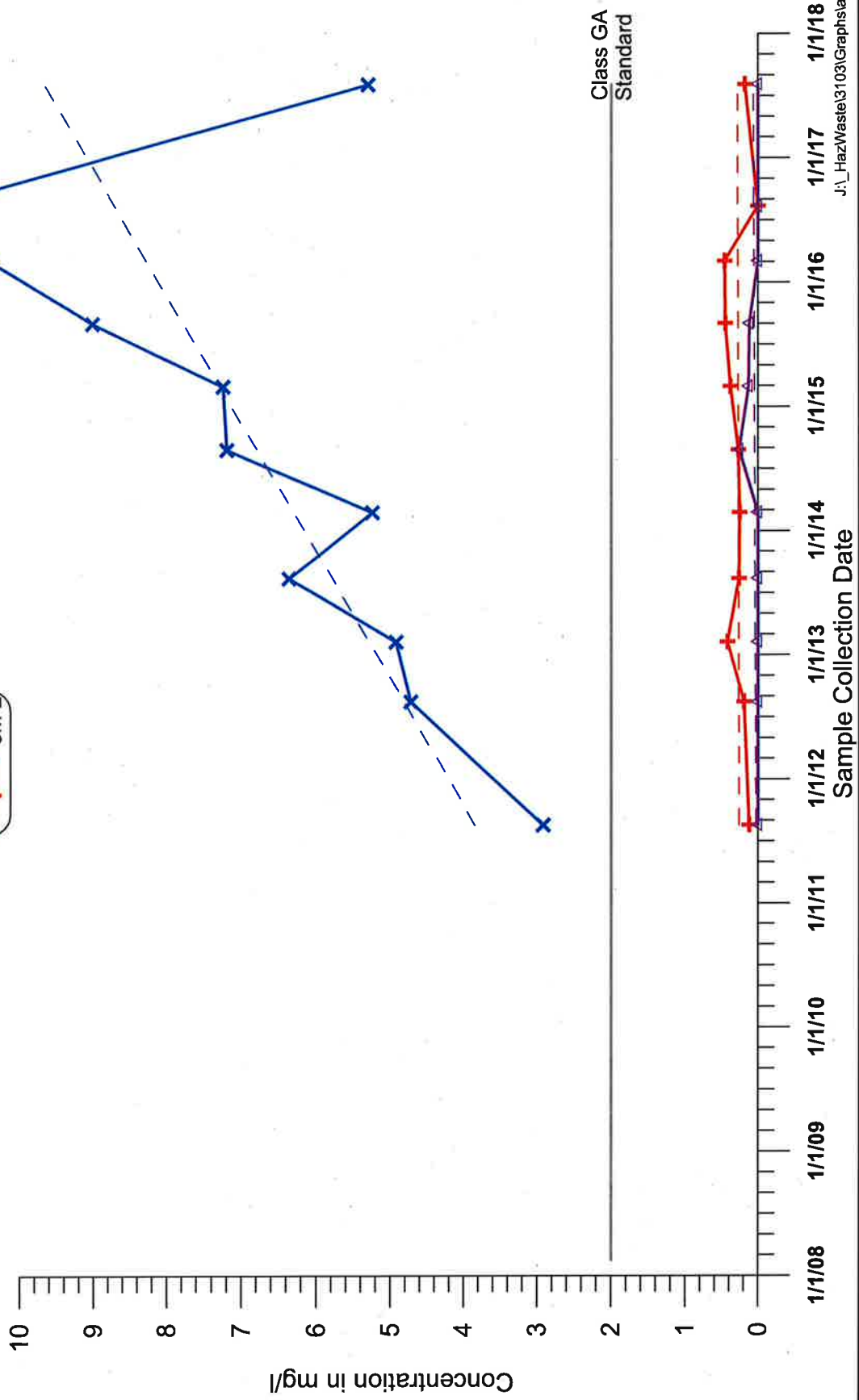
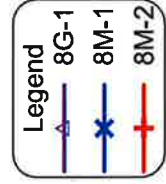
APPENDIX C-3

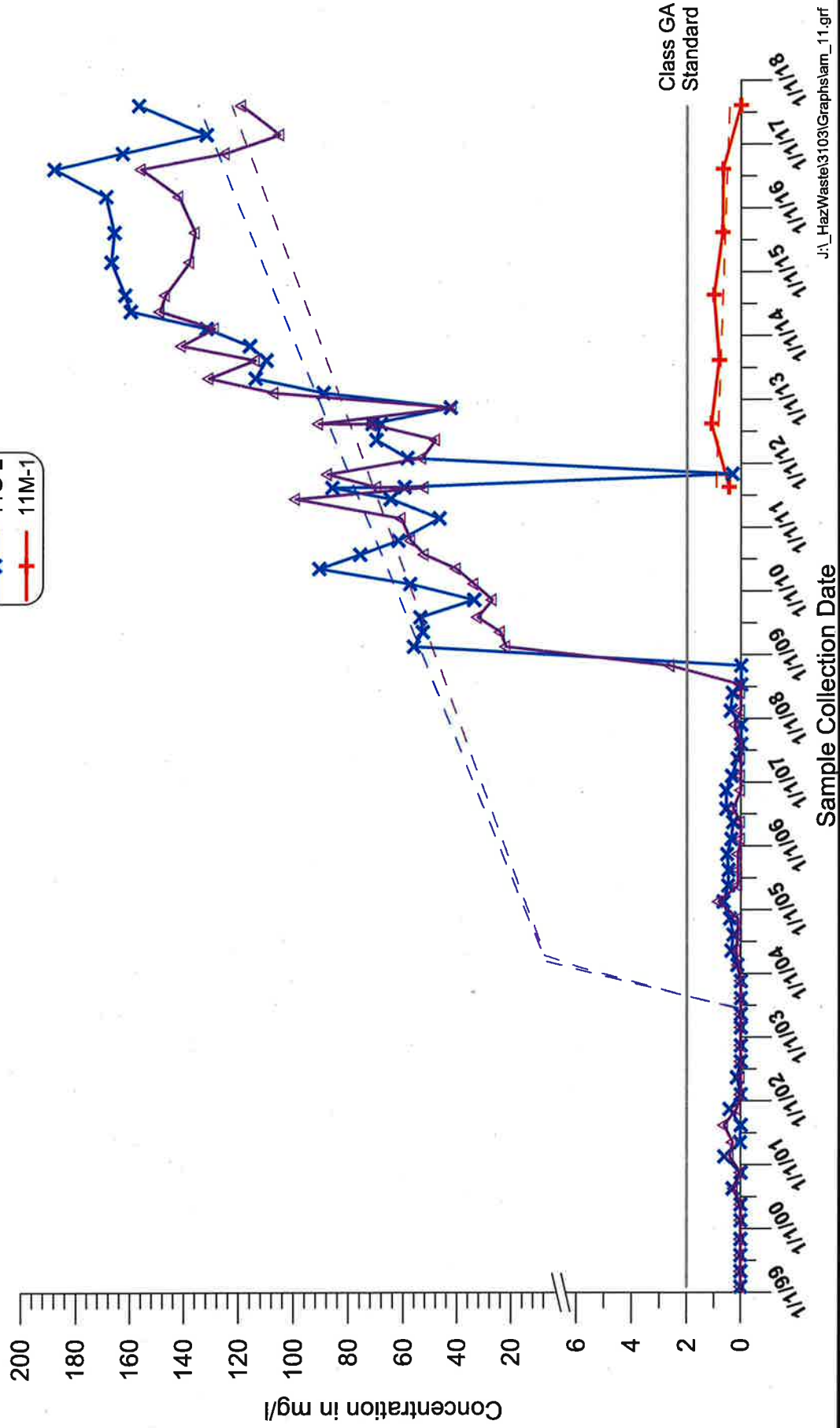
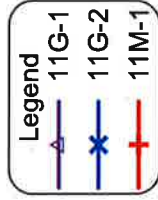
HISTORICAL TREND GRAPHS FOR MONITORING WELLS - LEACHATE INDICATORS

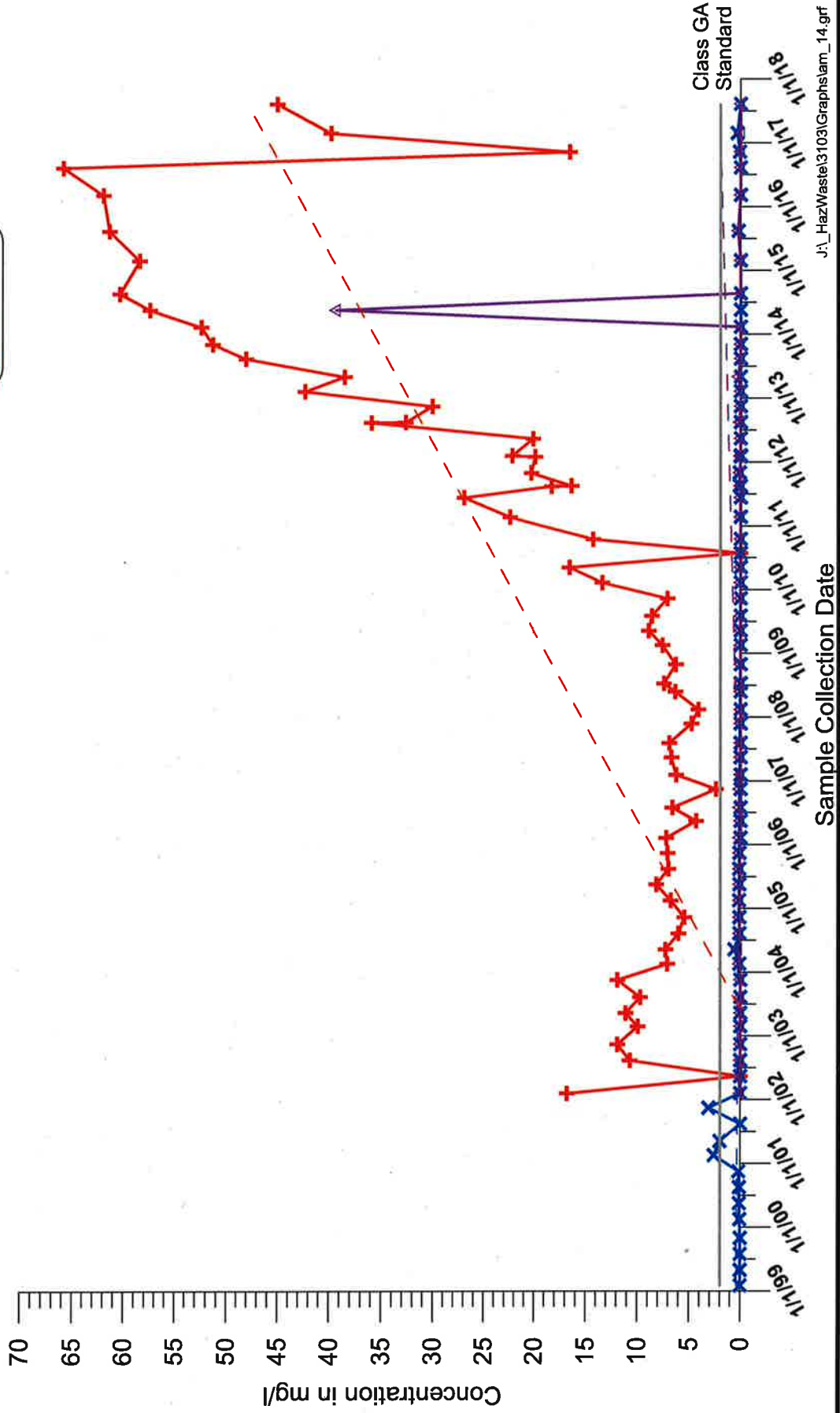
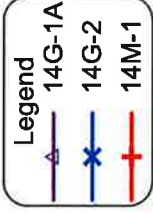


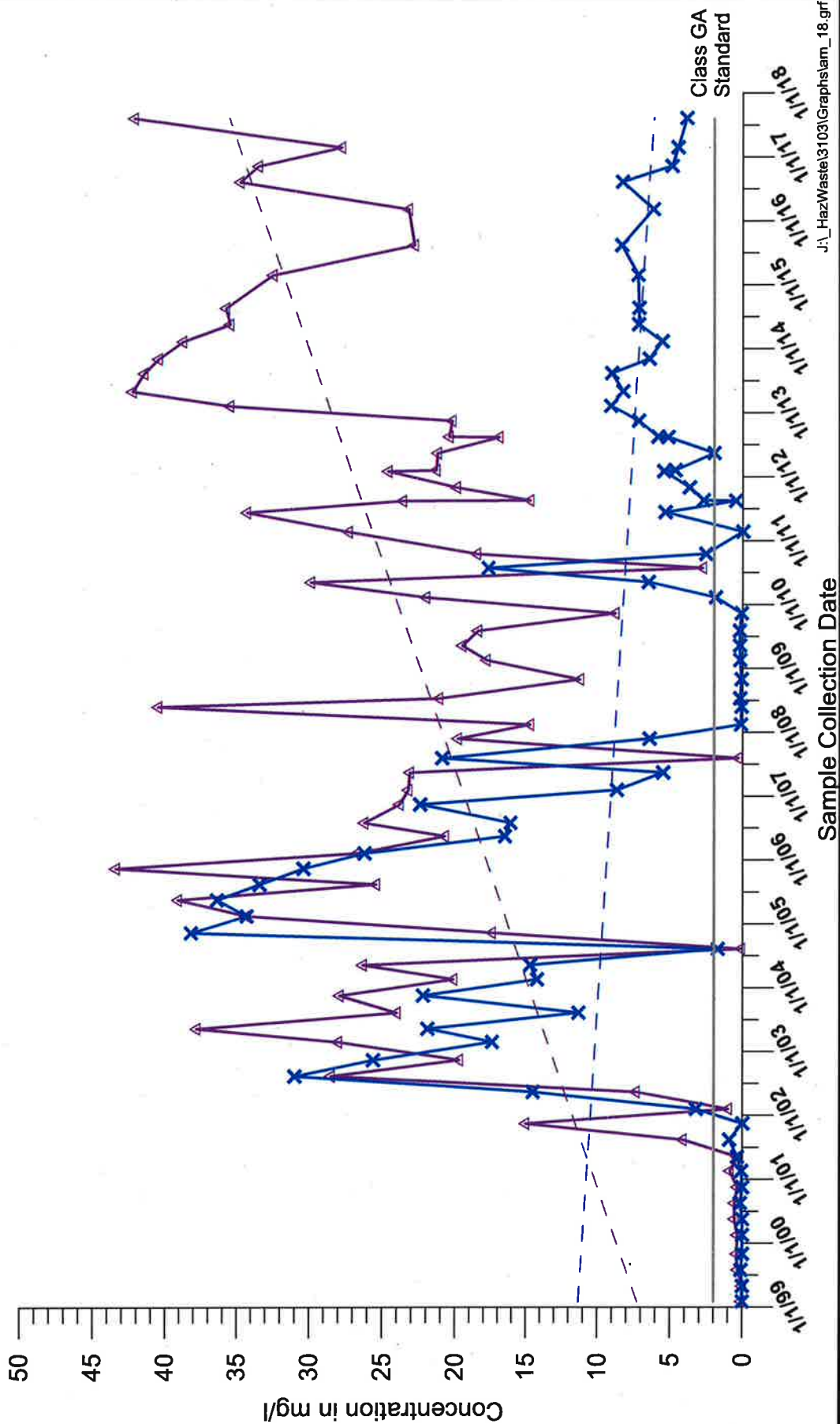
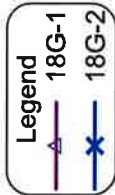




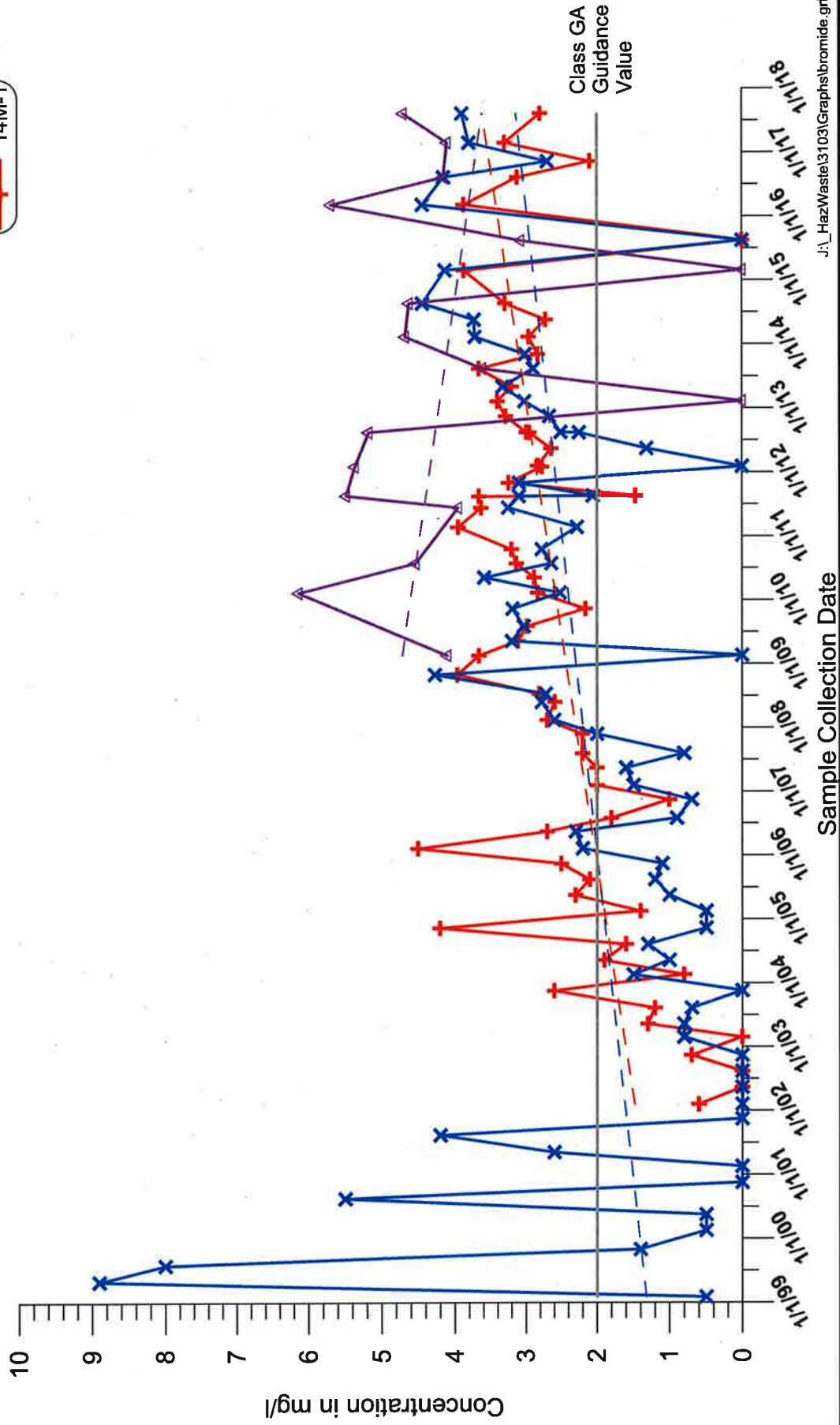
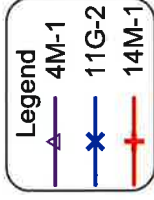




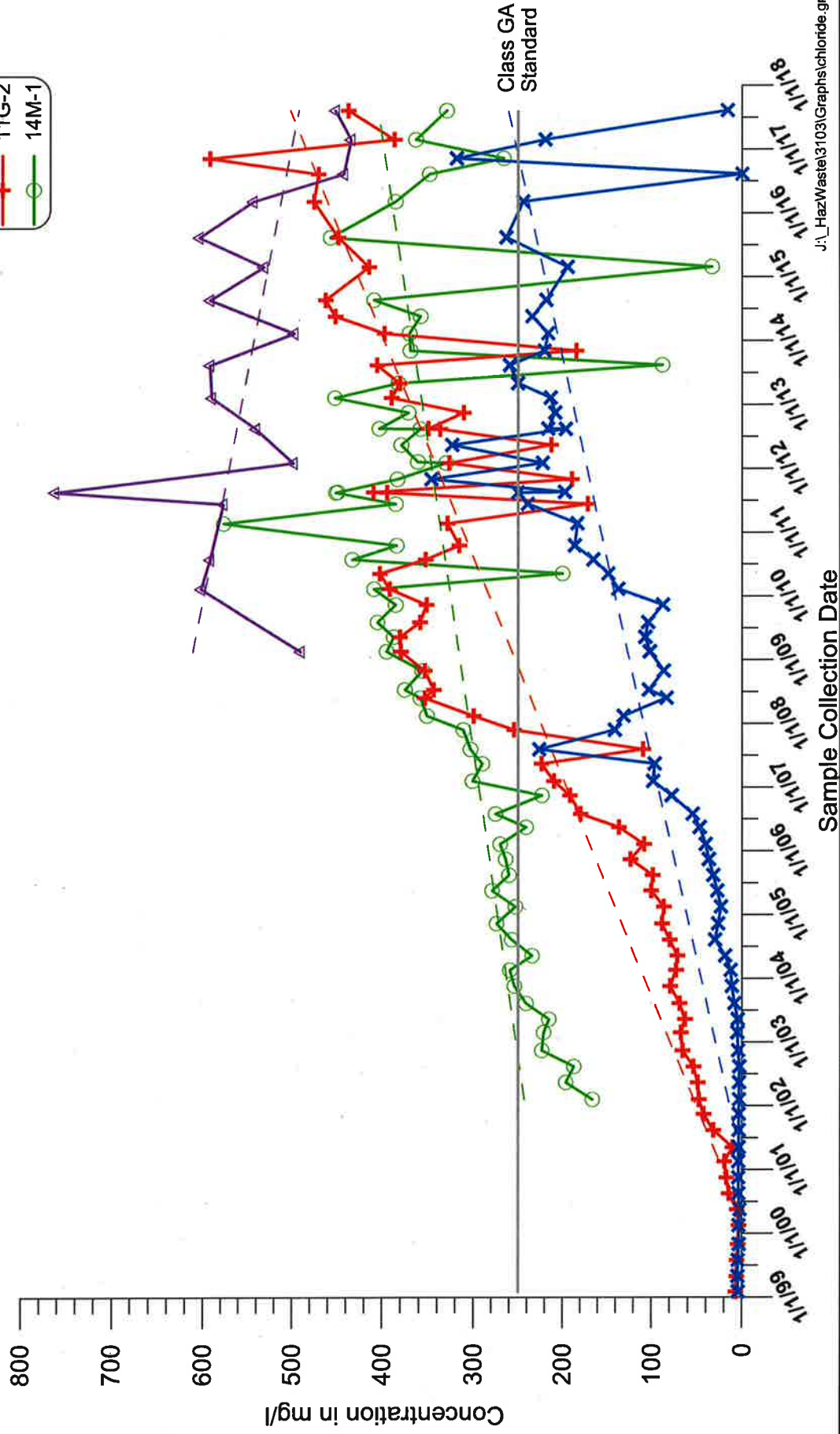
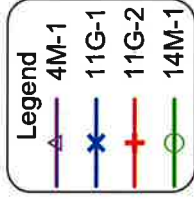


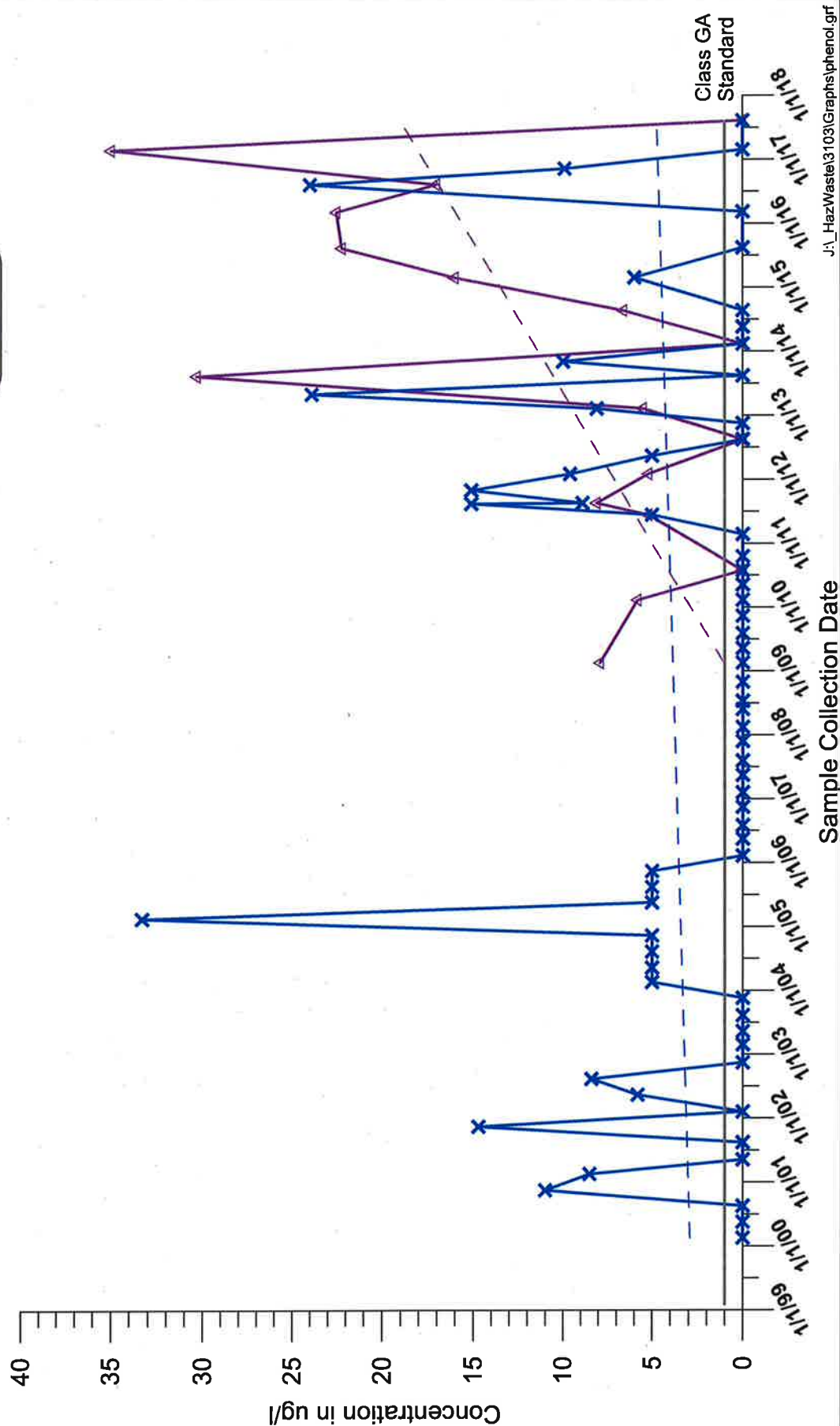
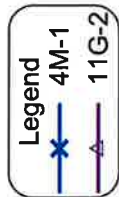


J:_HazWaste\3103\Graphs\lam_18.grf



J:_HazWaste\3103\Graphs\bromide.grf





J:_HazWaste\3103\Graphs\phenol.grf



Blydenburgh Road Landfill Complex Historical Phenols Data for Select Monitoring Wells

Appendix C-3

APPENDIX D-1

EXTRACTION WELL SAMPLE RESULTS - VOLATILE ORGANIC COMPOUNDS

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

Page 1 of 17

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			EW-1 2/29/16 225' -57 DOWN	EW-1 8/12/16 225' -57 DOWN	EW-1 2/28/17 225' -57 DOWN	EW-1 8/4/17 225' -57 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	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	UJ	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	UJ	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	UJ	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	UJ	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 ug/l Micrograms per liter
++ Applies to sum of isomer 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) based on blank results GV Guidance Value
(A) Collected by IRRA during well shutdown ST Standard
(B) Collected by D&B during well shutdown B Detected in blank
NR Not reported

**Exceeds Class GA
Standard/Guidance value**

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

Page 2 of 17

			Sample ID	EW-2	EW-2	EW-2	EW-2
			Sample_date	1/19/16(A)	2/24/16(A)	2/24/16(B)	3/18/16(A)
			Depth of Well BGS	223'	223'	223'	223'
			Depth to bottom screen, relative to MSL	-54	-54	-53	-53
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
		NYSDEC CLASS GA					
COMPOUNDS	CAS Number	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	3 BJ	1 BJ	UB	2 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	---	NR	NR	U	NR	
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	NR	U	NR	
Ethylbenzene	100-41-4	5 ST	U	U	U	U	
Iodomethane (Methyl Iodide)	74-88-4	5 ST	1 J	U	U	2 BJ	
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	1.2 J	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				5.2	1	0	4

+ Applies to each isomer individually ug/l Micrograms per liter
++ Applies to sum of isomer 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) based on blank results GV Guidance Value
(A) Collected by IRRRA during well shutdown ST Standard
(B) Collected by D&B during well shutdown B Detected in blank
NR Not reported

**Exceeds Class GA
Standard/Guidance value**

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

Page 3 of 17

			Sample ID	EW-2	EW-2	EW-2	EW-2
			Sample_date	5/11/16(A)	6/14/16(A)	7/15/16(A)	8/10/16(B)
			Depth of Well BGS	223'	223'	223'	223'
			Depth to bottom screen, relative to MSL	-54	-54	-53	-53
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Units in ug/l							
		NYSDEC CLASS GA					
		GROUNDWATER					
COMPOUNDS	CAS Number	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	1 J	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	NR	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	NR	NR	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	1	0	0	

+ Applies to each isomer individually ug/l Micrograms per liter
++ Applies to sum of isomer 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) based on blank results GV Guidance Value
(A) Collected by IRRA during well shutdown ST Standard
(B) Collected by D&B during well shutdown B Detected in blank
NR Not reported

Exceeds Class GA
Standard/Guidance value

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

Page 4 of 17

			Sample ID	EW-2	EW-2	EW-2	EW-2
			Sample_date	8/29/16(A)	9/19/16(A)	10/19/16(A)	11/15/16(A)
			Depth of Well BGS	223'	223'	223'	223'
			Depth to bottom screen, relative to MSL	-53	-54	-54	-53
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
		NYSDEC CLASS GA					
		GROUNDWATER					
COMPOUNDS	CAS Number	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	1 J	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	NR	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	NR	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	1	0	0	

+ Applies to each isomer individually

++ Applies to sum of isomer

U Compound was analyzed for but not detected

J Estimated detection limit or value

UB Qualified as non detect (U) based on blank results

(A) Collected by IRRRA during well shutdown

(B) Collected by D&B during well shutdown

NR Not reported

ug/l Micrograms per liter

BGS Below Ground Surface

MSL Mean Sea Level

MSW Municipal Solid Waste

GV Guidance Value

ST Standard

B Detected in blank

**Exceeds Class GA
Standard/Guidance value**

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

Page 5 of 17

			Sample ID	EW-2	EW-2	EW-2	EW-2
			Sample_date	12/13/16(A)	1/10/17(A)	2/8/17(A)	3/1/17(B)
			Depth of Well BGS	223'	223'	223'	223'
			Depth to bottom screen, relative to MSL	-54	-54	-54	-53
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS		NYSDEC CLASS GA GROUNDWATER					
	CAS Number	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	UJ
	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	UJ
	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	UJ
	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	UJ	
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 ug/l Micrograms per liter
++ Applies to sum of isomer 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) based on blank results GV Guidance Value
(A) Collected by IRRA during well shutdown ST Standard
(B) Collected by D&B during well shutdown B Detected in blank
NR Not reported

Exceeds Class GA
Standard/Guidance value

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

Page 6 of 17

			Sample ID	EW-2	EW-2	EW-2	EW-2
			Sample_date	3/17/17(A)	4/19/17(A)	5/15/17(A)	6/16/17(A)
			Depth of Well BGS	223'	223'	223'	223'
			Depth to bottom screen, relative to MSL	-54	-53	-54	-54
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
		NYSDEC CLASS GA					
COMPOUNDS	CAS Number	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	2 J	U	7.3	
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	NR	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	NR	U	U	
Ethylbenzene	100-41-4	5 ST	U	U	U	U	
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	2 BJ	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	4	0	7.3	

+ Applies to each isomer individually

++ Applies to sum of isomer

U Compound was analyzed for but not detected

J Estimated detection limit or value

UB Qualified as non detect (U) based on blank results

(A) Collected by IRRR during well shutdown

(B) Collected by D&B during well shutdown

NR Not reported

ug/l Micrograms per liter

BGS Below Ground Surface

MSL Mean Sea Level

MSW Municipal Solid Waste

GV Guidance Value

ST Standard

B Detected in blank

Exceeds Class GA
Standard/Guidance value

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

Page 7 of 17

			Sample ID	EW-2	EW-2	EW-2	EW-2
			Sample_date	7/07/17(A)	8/2/17(A)	8/4/17(B)	9/12/17(A)
			Depth of Well BGS	223'	223'	223'	223'
			Depth to bottom screen, relative to MSL	-53	-53	-53	-53
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Units in ug/l							
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	15.3	
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	15.3	

+ Applies to each isomer individually

++ Applies to sum of isomer

U Compound was analyzed for but not detected

J Estimated detection limit or value

UB Qualified as non detect (U) based on blank results

(A) Collected by IRRA during well shutdown

(B) Collected by D&B during well shutdown

NR Not reported

ug/l Micrograms per liter

BGS Below Ground Surface

MSL Mean Sea Level

MSW Municipal Solid Waste

GV Guidance Value

ST Standard

B Detected in blank

**Exceeds Class GA
Standard/Guidance value**

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

Page 8 of 17

			Sample ID	EW-2	EW-2	EW-2
			Sample_date	10/18/17(A)	11/15/17(A)	12/11/17(A)
			Depth of Well BGS	223'	223'	223'
			Depth to bottom screen, relative to MSL	-53	-53	-53
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN
		NYSDEC CLASS GA				
COMPOUNDS	CAS Number	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	U	U	U	
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++	1.1	U	1.1	
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	U	U	U	
Chlorodifluoromethane (Freon 22)	75-45-6	---	U	U	U	
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	U	U	U	
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	U	U	U	
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	U	U	U	
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	U	U	U	
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	
Vinyl Acetate	108-05-4	---	U	U	U	
Vinyl Chloride	75-01-4	2 ST	U	U	U	
Xylenes, Total	XYLENES	5 ST+	U	U	U	
Total Volatile Organic Compounds		---	1.1	0	1.1	

+ Applies to each isomer individually

++ Applies to sum of isomer

U Compound was analyzed for but not detected

J Estimated detection limit or value

UB Qualified as non detect (U) based on blank results

(A) Collected by IRRRA during well shutdown

(B) Collected by D&B during well shutdown

NR Not reported

ug/l Micrograms per liter

BGS Below Ground Surface

MSL Mean Sea Level

MSW Municipal Solid Waste

GV Guidance Value

ST Standard

B Detected in blank

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

Page 9 of 17

			Sample ID	EW-3	EW-3	EW-3	EW-3
			Sample_date	2/24/16	8/12/16	2/23/17	8/3/17
			Depth of Well BGS	312'	312'	312'	312'
			Depth to bottom screen, relative to MSL	-129	-129	-129	-129
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Units in ug/l							
COMPOUNDS		NYSDEC CLASS GA					
	CAS Number	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	1 J	1.3	1.3
	2-Hexanone	591-78-6	50 GV	U	U	U	U
	Acetone	67-64-1	50 GV	UB	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	---	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	1	1.3	1.3

+ Applies to each isomer individually ug/l Micrograms per liter
++ Applies to sum of isomer 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) based on blank results GV Guidance Value
(A) Collected by IRRA during well shutdown ST Standard
(B) Collected by D&B during well shutdown B Detected in blank
NR Not reported

Exceeds Class GA
Standard/Guidance value

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

			Sample ID	EW-4	EW-4	EW-4	EW-4
			Sample_date	2/24/16	8/12/16	2/23/17	8/3/17
			Depth of Well BGS	305'	305'	305'	305'
			Depth to bottom screen, relative to MSL	-138	-138	-138	-138
Units in ug/l			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	1 J	1.1	1.3	
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	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	1	1.1	1.3	

+ Applies to each isomer individually

++ Applies to sum of isomer

U Compound was analyzed for but not detected

J Estimated detection limit or value

UB Qualified as non detect (U) based on blank results

(A) Collected by IRRA during well shutdown

(B) Collected by D&B during well shutdown

NR Not reported

ug/l Micrograms per liter

BGS Below Ground Surface

MSL Mean Sea Level

MSW Municipal Solid Waste

GV Guidance Value

ST Standard

B Detected in blank

**Exceeds Class GA
Standard/Guidance value**

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

Page 11 of 17

			Sample ID	EW-5	EW-5	EW-5	EW-5
			Sample_date	3/7/16	8/3/16	2/23/17	8/4/17
			Depth of Well BGS	213'	213'	213'	213'
			Depth to bottom screen, relative to MSL	-141	-141	-141	-141
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Units in ug/l							
		NYSDEC CLASS GA GROUNDWATER					
COMPOUNDS	CAS Number	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	5	3 J	3.4	3.3	
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	1 J	U	U	U	
1,1-Dichloroethene	75-35-4	5 ST	U	U	0.59 J	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			6	3	3.99	3.3	

+ Applies to each isomer individually

++ Applies to sum of isomer

U Compound was analyzed for but not detected

J Estimated detection limit or value

UB Qualified as non detect (U) based on blank results

(A) Collected by IRRR during well shutdown

(B) Collected by D&B during well shutdown

NR Not reported

 D&B ENGINEERS
AND
ARCHITECTS, P.C.

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
B Detected in blank

Exceeds Class GA
Standard/Guidance value

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

Page 12 of 17

			Sample ID	EW-6	EW-6	EW-6	EW-6
			Sample_date	3/07/16(B)	3/18/16(A)	5/11/16(A)	6/15/16(A)
			Depth of Well BGS	215'	215'	215'	215'
			Depth to bottom screen, relative to MSL	-137'	-137'	-137'	-137'
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
		NYSDEC CLASS GA					
COMPOUNDS	CAS Number	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	2 J	U	1 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	NR	NR	NR	
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	NR	NR	NR	
Ethylbenzene	100-41-4	5 ST	U	U	U	U	
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	2 BJ	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	4	0	1	

+ Applies to each isomer individually

++ Applies to sum of isomer

U Compound was analyzed for but not detected

J Estimated detection limit or value

UB Qualified as non detect (U) based on blank results

(A) Collected by IRRR during well shutdown

(B) Collected by D&B during well shutdown

NR Not reported

ug/l Micrograms per liter

BGS Below Ground Surface

MSL Mean Sea Level

MSW Municipal Solid Waste

GV Guidance Value

ST Standard

B Detected in blank

**Exceeds Class GA
Standard/Guidance value**

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

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			EW-6 7/15/16(A) 215' -137' DOWN	EW-6 8/9/16(B) 215' -137' DOWN	EW-6 8/26/16(A) 215' -137' DOWN	EW-6 9/20/16(A) 215' -137' DOWN
Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
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	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	NR	NR
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	NR	NR
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
++ Applies to sum of isomer
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on blank results
(A) Collected by IRRA during well shutdown
(B) Collected by D&B during well shutdown
NR Not reported

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
B Detected in blank

**Exceeds Class GA
Standard/Guidance value**

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

			Sample ID	EW-6	EW-6	EW-6	EW-6
			Sample_date	10/21/16(A)	11/15/16(A)	12/13/16(A)	1/11/17(A)
			Depth of Well BGS	215'	215'	215'	215'
			Depth to bottom screen, relative to MSL	-137'	-137'	-137'	-137'
Units in ug/l			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	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	1.3	
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	1.3

+ Applies to each isomer individually
++ Applies to sum of isomer
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on blank results
(A) Collected by IRRA during well shutdown
(B) Collected by D&B during well shutdown
NR Not reported

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
B Detected in blank

Exceeds Class GA
Standard/Guidance value

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

Page 15 of 17

			Sample ID	EW-6	EW-6	EW-6	EW-6
			Sample_date	2/8/17(A)	2/28/17(B)	3/20/17(A)	4/19/17(A)
			Depth of Well BGS	215'	215'	215'	215'
			Depth to bottom screen, relative to MSL	-137'	-137'	-137'	-137'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Units in ug/l							
		NYSDEC CLASS GA					
COMPOUNDS	CAS Number	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	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	UJ	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	UJ	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	UJ	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	UJ	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 ug/l Micrograms per liter
++ Applies to sum of isomer 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) based on blank results GV Guidance Value
(A) Collected by IRRA during well shutdown ST Standard
(B) Collected by D&B during well shutdown B Detected in blank
NR Not reported

Exceeds Class GA
Standard/Guidance value

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

Page 16 of 17

			Sample ID	EW-6	EW-6	EW-6	EW-6
			Sample_date	5/15/17(A)	6/16/17(A)	7/07/17(A)	8/07/17(A)
			Depth of Well BGS	215'	215'	215'	215'
			Depth to bottom screen, relative to MSL	-137'	-137'	-137'	-137'
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
		NYSDEC CLASS GA					
COMPOUNDS	CAS Number	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	9.6	7.3	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			---	9.6	7.3	0	0

+ Applies to each isomer individually
++ Applies to sum of isomer
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on blank results
(A) Collected by IRRR during well shutdown
(B) Collected by D&B during well shutdown
NR Not reported

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
B Detected in blank

**Exceeds Class GA
Standard/Guidance value**

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

Page 17 of 17

			Sample ID	EW-6	EW-6	EW-6	EW-6	EW-6
			Sample_date	8/11/17 (B)	9/12/17(A)	10/18/17(A)	11/15/17(A)	12/12/17(A)
			Depth of Well BGS	215'	215'	215'	215'	215'
			Depth to bottom screen, relative to MSL	-137'	-137'	-137'	-137'	-137'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN	DOWN
Units in ug/l	NYSDEC CLASS GA GROUNDWATER							
COMPOUNDS	CAS Number	ST/GV						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U	U	U
Acetone	67-64-1	50 GV	U	12.8	U	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	U	U	U	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U	U	U	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U	U	U
Total Volatile Organic Compounds			0	12.8	0	0	0	0

+ Applies to each isomer individually

++ Applies to sum of isomer

U Compound was analyzed for but not detected

J Estimated detection limit or value

UB Qualified as non detect (U) based on blank results

(A) Collected by IRRR during well shutdown

(B) Collected by D&B during well shutdown

NR Not reported

ug/l Micrograms per liter

BGS Below Ground Surface

MSL Mean Sea Level

MSW Municipal Solid Waste

GV Guidance Value

ST Standard

B Detected in blank

**Exceeds Class GA
Standard/Guidance value**

APPENDIX D-2

EXTRACTION WELL SAMPLE RESULTS - INORGANIC PARAMETERS

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

Page 1 of 6

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			EW-1 2/29/16 225' -57 DOWN	EW-1 8/12/16 225' -57 DOWN	EW-1 2/28/17 225' -57 DOWN	EW-1 8/4/17 225' -57 DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	U	20.4 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	35.7 J	33.9 J	36.2 J	34.4 J
Beryllium	7440-41-7	3 GV	U	0.7 J	U	U
Boron	7440-42-8	1000 ST	120	121	119	116
Cadmium	7440-43-9	5 ST	0.4 J	1.1 J	U	0.098 J
Calcium	7440-70-2	--	27500	28400	27700	26000
Chromium, Hexavalent	18540-29-9	50 ST	U	U	UJ	U
Chromium, Total	7440-47-3	50 ST	U	U	U	U
Cobalt	7440-48-4	--	5.2 J	5.2 J	5 J	4.3 J
Copper	7440-50-8	200 ST	12.5 J	UB	2.6 J	12 J
Cyanide	57-12-5	200 ST	U	UJ	UJ	U
Iron	7439-89-6	300 ST#	U	U	11.4 J	U
Lead	7439-92-1	25 ST	3 J	4.1 J	2.8 J	1.9 J
Magnesium	7439-95-4	35000 GV	11100	11900	11400	10200
Manganese	7439-96-5	300 ST#	622	542	494	481
Mercury	7439-97-6	0.7 ST	U	UJ	UB	UB
Nickel	7440-02-0	100 ST	4.7 J	5.5 J	4.1 J	4.4 J
Potassium	7440-09-7	--	2610 J	2950 J	3310 J	3520 J
Selenium	7782-49-2	10 ST	UJ	U	U	U
Silver	7440-22-4	50 ST	U	UJ	U	U
Sodium	7440-23-5	20000 ST	84700	76700	79100	73100
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	90	20	10.2 J	40.3

- ug/l Micrograms per liter
 U Compound was analyzed for but not detected
 J Estimated detection limit or value
 J+ Estimated high based on blank results
 B Detected between the IDL and CRDL
 IDL Instrument Detection Limit
 CRDL Contract Required Detection Limit
 UB Qualified as non detect (U) based on blank results
 -- Not analyzed or 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
 (B) Collected by D&B during well shutdown

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

Page 2 of 6

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			EW-2 2/24/16(B) 223' -53 DOWN	EW-2 8/10/16 (B) 223' -53 DOWN	EW-2 3/1/17 (B) 223' -53 DOWN	EW-2 8/4/17 (B) 223' -53 DOWN
Units in ug/l						
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	8.7 J	13.3 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	120	130	150	144
Cadmium	7440-43-9	5 ST	0.50 J	U	0.1 J	U
Calcium	7440-70-2	--	17700	22000	27900	35400
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	5.9 J	U	U
Cobalt	7440-48-4	--	UB	2.6 J	4.3 J	4.7 J
Copper	7440-50-8	200 ST	8.4 J	9.7 J	U	U
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	6740	7070	3890	2580
Lead	7439-92-1	25 ST	1.5 J	3.6 J	4.4 J	2.6 J
Magnesium	7439-95-4	35000 GV	6470	8610	12600	13800
Manganese	7439-96-5	300 ST#	195	163	106	245
Mercury	7439-97-6	0.7 ST	U	U	UB	UB
Nickel	7440-02-0	100 ST	5.1 J	5 J	7.5 J	6.3 J
Potassium	7440-09-7	--	3980 J	3990 J	4850 J	6910
Selenium	7782-49-2	10 ST	UJ	UJ	U	U
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	90000	92700 J	86900	65800
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	14.8 J	12.6 J	11.8 J	UB

ug/l Micrograms per liter

U Compound was analyzed for but not detected

J Estimated detection limit or value

J+ Estimated high based on blank results

B Detected between the IDL and CRDL

IDL Instrument Detection Limit

CRDL Contract Required Detection Limit

UB Qualified as non detect (U) based on blank results

-- Not analyzed or 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

(B) Collected by D&B during well shutdown

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

Page 3 of 6

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			EW-3 2/24/16 312' -129 DOWN	EW-3 8/12/16 312' -129 DOWN	EW-3 2/23/17 312' -129 DOWN	EW-3 8/3/17 312' -129 DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	22.6 J	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	48.3 J	49.2 J	45.6 J	46 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	145	155	149	146
Cadmium	7440-43-9	5 ST	0.20 J	U	U	U
Calcium	7440-70-2	--	51200	53800	46800	46400
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	UB
Chromium, Total	7440-47-3	50 ST	U	U	U	U
Cobalt	7440-48-4	--	17.7 J	17.7 J	16.3 J	14.6 J
Copper	7440-50-8	200 ST	8.0 J	UB	5.3 J	4 J
Cyanide	57-12-5	200 ST	U	UJ	U	U
Iron	7439-89-6	300 ST#	U	U	49 J	U
Lead	7439-92-1	25 ST	3.3 J	6.2	U	2.2 J
Magnesium	7439-95-4	35000 GV	32400	33800	29700	28500
Manganese	7439-96-5	300 ST#	582	592	515	491
Mercury	7439-97-6	0.7 ST	U	UJ	U	UB
Nickel	7440-02-0	100 ST	9.9 J	11.2 J	10.6 J	10.2 J
Potassium	7440-09-7	--	4700 J	4140 J	4820 J	5170
Selenium	7782-49-2	10 ST	UJ	U	U	U
Silver	7440-22-4	50 ST	U	2.3 JL	U	U
Sodium	7440-23-5	20000 ST	63800	63600	61000	58300
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	10.3 J	11.7 J	7.7 J	UB

ug/l Micrograms per liter
 U Compound was analyzed for but not detected
 J Estimated detection limit or value
 J+ Estimated high based on blank results
 B Detected between the IDL and CRDL
 IDL Instrument Detection Limit
 CRDL Contract Required Detection Limit
 UB Qualified as non detect (U) based on blank results
 -- Not analyzed or 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
 (B) Collected by D&B during well shutdown

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

Page 4 of 6

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			EW-4 2/24/16 213' -141 DOWN	EW-4 8/12/16 305' -138 DOWN	EW-4 2/23/17 305' -138 DOWN	EW-4 8/3/17 305' -138 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	54.6 J	60.4 J	54.2 J	55.4 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	246	273	239	235
Cadmium	7440-43-9	5 ST	U	U	0.17 J	U
Calcium	7440-70-2	--	48200	51800	46200	46100
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	UB
Chromium, Total	7440-47-3	50 ST	U	2.4 J	U	U
Cobalt	7440-48-4	--	10.4 J	13 J	10.7 J	11 J
Copper	7440-50-8	200 ST	3.2 J	UB	10.7 J	U
Cyanide	57-12-5	200 ST	U	UJ	U	U
Iron	7439-89-6	300 ST#	U	U	84.5 J	UB
Lead	7439-92-1	25 ST	4.0 J	4.9 J	3.6 J	2 J
Magnesium	7439-95-4	35000 GV	28100	30900	27100	26500
Manganese	7439-96-5	300 ST#	374	482	341	363
Mercury	7439-97-6	0.7 ST	U	UJ	U	U
Nickel	7440-02-0	100 ST	16.4 J	20.2 J	18.6 J	17.3 J
Potassium	7440-09-7	--	9440 J	10200	8910	9820
Selenium	7782-49-2	10 ST	UJ	U	U	U
Silver	7440-22-4	50 ST	U	UJ	U	U
Sodium	7440-23-5	20000 ST	64500	72600	65200	61400
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	7.6 J	11.8 J	80.3	UB

ug/l Micrograms per liter

U Compound was analyzed for but not detected

J Estimated detection limit or value

J+ Estimated high based on blank results

B Detected between the IDL and CRDL

IDL Instrument Detection Limit

CRDL Contract Required Detection Limit

UB Qualified as non detect (U) based on blank results

-- Not analyzed or 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

(B) Collected by D&B during well shutdown

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

Page 5 of 6

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in ug/l Gradient relative to MSW			EW-5 3/7/16 213' -141 DOWN	EW-5 8/3/16 213' -141 DOWN	EW-5 2/23/17 213' -141 DOWN	EW-5 8/4/17 215' -137' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	24.9 J	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	34.1 J	30.2 J	30.7 B	30.9 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	39.2 J	38.7 J	43.4 B	UB
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	21900	25000	26200	23900
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	U	1.3 B	U
Cobalt	7440-48-4	--	U	U	U	U
Copper	7440-50-8	200 ST	5.0 J	1.1 J	35.3	U
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	UJ	U	U	UB
Lead	7439-92-1	25 ST	5.7	6.6	5.2	U
Magnesium	7439-95-4	35000 GV	10500	11900	12200	10900
Manganese	7439-96-5	300 ST#	45.9	44.5	38.4	48.3
Mercury	7439-97-6	0.7 ST	UB	U	U	UB
Nickel	7440-02-0	100 ST	U	U	U	U
Potassium	7440-09-7	--	1580 J	771 J	1800 B	2200 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	10500 J	13400 J	11600	9560
Thallium	7440-28-0	0.5 GV	U	<u>1.9 J</u>	U	U
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	77.4	22.1	48.3	19.4 J

ug/l Micrograms per liter
 U Compound was analyzed for but not detected
 J Estimated detection limit or value
 J+ Estimated high based on blank results
 B Detected between the IDL and CRDL
 IDL Instrument Detection Limit
 CRDL Contract Required Detection Limit
 UB Qualified as non detect (U) based on blank results
 -- Not analyzed or 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
 (B) Collected by D&B during well shutdown

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

Page 6 of 6

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			EW-6 3/07/16(B)	EW-6 8/9/16(B)	EW-6 2/28/17(B)	EW-6 8/11/17 (B)
Units in ug/l			215' -137'	215' -137'	215' -137'	215' -137'
DOWN			DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	24.9 J	U	U	25 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	U	U	8.8 J	8.8 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	30.1 J	29.9 J	33.0 J	UB
Cadmium	7440-43-9	5 ST	0.30 J	U	U	U
Calcium	7440-70-2	--	20000	22000	22100	22100
Chromium, Hexavalent	18540-29-9	50 ST	U	U	UJ	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	1.3 J	UB	U	13.6 J
Cyanide	57-12-5	200 ST	U	U	UJ	U
Iron	7439-89-6	300 ST#	UJ	U	59.3 J	87.7
Lead	7439-92-1	25 ST	4.5 J	3 J	2.2 J	U
Magnesium	7439-95-4	35000 GV	10600	11800	11600	11800
Manganese	7439-96-5	300 ST#	6.6 J	7 J	UB	6.7 J
Mercury	7439-97-6	0.7 ST	UB	UB	U	U
Nickel	7440-02-0	100 ST	U	U	U	U
Potassium	7440-09-7	--	1000 J	584 J	1160 J	1750 J
Selenium	7782-49-2	10 ST	U	UJ	U	U
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	9010 J	9690 J	8150	7890
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	8.1 J	U	UB	16.3 J

ug/l Micrograms per liter

U Compound was analyzed for but not detected

J Estimated detection limit or value

J+ Estimated high based on blank results

B Detected between the IDL and CRDL

IDL Instrument Detection Limit

CRDL Contract Required Detection Limit

UB Qualified as non detect (U) based on blank results

-- Not analyzed or 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

(B) Collected by D&B during well shutdown

APPENDIX D-3

EXTRACTION WELL SAMPLE RESULTS - LEACHATE INDICATORS

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

Page 1 of 6

			Sample ID	EW-1	EW-1	EW-1	EW-1
			Sample_date	2/29/16	8/12/16	2/28/17	8/4/17
			Depth of Well BGS	225'	225'	225'	225'
			Depth to bottom screen, relative to MSL	-57	-57	-57	-57
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Units in mg/l							
			NYSDEC CLASS GA GROUNDWATER ST/GV				
Chemical Name	CAS Number						
Alkalinity, Total (as CaCO ₃)	ALK	---		157	156 D	175 J	198
Biochemical Oxygen Demand (BOD)	BOD	---		U	U	UB	UB
Bromide	24959-67-9	2 GV		U	U	0.075 J	0.067 J
Chloride (as Cl)	16887-00-6	250 ST		69.6 D	60.6 D	55.5	58
Cod - Chemical Oxygen Demand	COD	---		U	U	UB	U
Color	COLOR	---		U	U	5	5
Hardness (as CaCO ₃)	HARD	---		102 D	170 D	96	116
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		0.17	0.12	UB	UBJ
Nitrogen, Kjeldahl, Total	KN	---		U	U	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		2.43 D	2.41 D	2.5	2.1
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	UB
Sulfate (as SO ₄)	14808-79-8	250 ST		30.6	24	25.5	22.2
Total Dissolved Solids	E-10173	---		290	317	292	301
Total Organic Carbon	TOC	---		U	3.5 J	U	0.81 J

mg/l Milligrams per liter
 U Compound was analyzed for but not detected
 J Estimated detection limit or value
 D Result was reported from a secondary dilution
 -- 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

(B) Collected by D&B during well shutdown

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

Page 2 of 6

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			EW-2 2/24/16(B)	EW-2 8/10/16 (B)	EW-2 3/1/17(B)	EW-2 8/4/17 (B)
Units in mg/l			223'	223'	223'	223'
			-53	-53	-53	-53
			DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	153 D	165 D	201 J	157
Biochemical Oxygen Demand (BOD)	BOD	---	U	U	UB	UB
Bromide	24959-67-9	2 GV	U	4.27 J	0.1 J	0.11 J
Chloride (as Cl)	16887-00-6	250 ST	63.7 D	64.5 D	57.6	74.8
Cod - Chemical Oxygen Demand	COD	---	10.2	U	UB	21.3
Color	COLOR	---	100 D	5	5	5
Hardness (as CaCO ₃)	HARD	---	73	86 D	104	148
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.36	0.33	UB	UBJ
Nitrogen, Kjeldahl, Total	KN	---	0.34 J	0.34	U	UBJ
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	0.54	0.87	2.3	2.2
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	UB	UB
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	UB	U	0.0021 J	UB
Sulfate (as SO ₄)	14808-79-8	250 ST	16.7	18.7	46.3	27.6
Total Dissolved Solids	E-10173	---	264	342	358	338
Total Organic Carbon	TOC	---	1.30 J	2.7 J	1.3	1.6

mg/l Milligrams per liter
U Compound was analyzed for but not detected
J Estimated detection limit or value
D Result was reported from a secondary dilution
-- 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

(B) Collected by D&B during well shutdown

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

Page 3 of 6

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Units in mg/l Gradient relative to MSW			EW-3 2/24/16 312' -129 DOWN	EW-3 8/12/16 312' -129 DOWN	EW-3 2/23/17 312' -129 DOWN	EW-3 8/3/17 312' -129 DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	275 D	264 D	267	233 J
Biochemical Oxygen Demand (BOD)	BOD	---	U	U	UB	UB
Bromide	24959-67-9	2 GV	U	U	0.19 J	0.17 J
Chloride (as Cl)	16887-00-6	250 ST	60.3 D	U	58.5	64.5
Cod - Chemical Oxygen Demand	COD	---	U	10.6	UB	17.2
Color	COLOR	---	5.00	U	5	5
Hardness (as CaCO ₃)	HARD	---	204 D	240 D	224	220
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	3.31	3.41	2.8	3.3 J
Nitrogen, Kjeldahl, Total	KN	---	2.47 J	2.63	3.3 J	5.2 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	2.83 D	2.81 D	3	2.4
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	0.0083 J	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	UB	U	0.001 J	UB
Sulfate (as SO ₄)	14808-79-8	250 ST	31.4	21.8	25.1	24.8
Total Dissolved Solids	E-10173	---	384	375	403	373
Total Organic Carbon	TOC	---	3.00 J	4.3 J	2.3	2.3

mg/l Milligrams per liter
U Compound was analyzed for but not detected
J Estimated detection limit or value
D Result was reported from a secondary dilution
-- 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

(B) Collected by D&B during well shutdown

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

Page 4 of 6

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			EW-4 2/24/16 213' -141 DOWN	EW-4 8/12/16 305' -138 DOWN	EW-4 2/23/17 305' -138 DOWN	EW-4 8/3/17 305' -138 DOWN
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	251 D	268 D	237	242 J
Biochemical Oxygen Demand (BOD)	BOD	---	2	5	8.9	9.4
Bromide	24959-67-9	2 GV	U	U	0.36 J	0.34 J
Chloride (as Cl)	16887-00-6	250 ST	68.4 D	74.2 D	68	74.4
Cod - Chemical Oxygen Demand	COD	---	U	21.1	UB	21.3
Color	COLOR	---	10.0	10	10	5
Hardness (as CaCO ₃)	HARD	---	196 D	230 D	120	196
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	10.3 D	13.9 D	9.9	11.7 J
Nitrogen, Kjeldahl, Total	KN	---	10.2 DJ	11 D	9.5 J	14.3 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	5.01 D	4.7 D	5.1	5.3
Nitrogen, Nitrite	14797-65-0	1 ST	0.40	0.23	0.47 J	0.66
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	UB	0.0062	U	0.0488
Sulfate (as SO ₄)	14808-79-8	250 ST	36.2	26.1	28.2	28
Total Dissolved Solids	E-10173	---	392	439	419	435
Total Organic Carbon	TOC	---	4.50 J	6.5 J	4.3	4.4

mg/l Milligrams per liter
U Compound was analyzed for but not detected
J Estimated detection limit or value
D Result was reported from a secondary dilution
-- 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

(B) Collected by D&B during well shutdown

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

Page 5 of 6

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			EW-5 3/7/16 213' -141 DOWN	EW-5 8/3/16 213' -141 DOWN	EW-5 2/23/17 213' -141 DOWN	EW-5 8/4/17 215' -137' DOWN
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	56.0	71.4 D	71.6	79.8
Biochemical Oxygen Demand (BOD)	BOD	---	U	U	UB	UB
Bromide	24959-67-9	2 GV	U	U	0.094 J	0.037 J
Chloride (as Cl)	16887-00-6	250 ST	24.6	20.4	30.5	22.6
Cod - Chemical Oxygen Demand	COD	---	UJ	U	UB	6.8 J
Color	COLOR	---	U	10	5	5
Hardness (as CaCO ₃)	HARD	---	90 D	112 D	120	120
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.42	UB	0.36	UBJ
Nitrogen, Kjeldahl, Total	KN	---	U	U	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	3.40 D	4.38 D	4.5	4
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	0.0068	UB
Sulfate (as SO ₄)	14808-79-8	250 ST	27.4	21.9	23.4	23.3
Total Dissolved Solids	E-10173	---	154	182	177	182
Total Organic Carbon	TOC	---	U	1.4	U	1.2

mg/l Milligrams per liter
 U Compound was analyzed for but not detected
 J Estimated detection limit or value
 D Result was reported from a secondary dilution
 -- 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
 (B) Collected by D&B during well shutdown

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

Page 6 of 6

Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW			EW-6 3/07/16(B) 215' -137' DOWN	EW-6 8/9/16(B) 215' -137' DOWN	EW-6 2/28/17(B) 215' -137' DOWN	EW-6 8/11/17 (B) 215' -137' DOWN
Units in mg/l						
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO ₃)	ALK	---	65.3	73.6	78.2	80.2 J
Biochemical Oxygen Demand (BOD)	BOD	---	U	U	UB	UB
Bromide	24959-67-9	2 GV	U	U	0.04 J	0.04 J
Chloride (as Cl)	16887-00-6	250 ST	14.0	11.2	10.4	13.3
Cod - Chemical Oxygen Demand	COD	---	UJ	U	UB	8.8 J
Color	COLOR	---	U	5	5	U
Hardness (as CaCO ₃)	HARD	---	88 D	92 D	100	116 J
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.11	0.12	UB	UB
Nitrogen, Kjeldahl, Total	KN	---	U	2.17	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	3.71 D	3.97 D	4.3	4.2
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	U	U
Sulfate (as SO ₄)	14808-79-8	250 ST	20.0	17.3	16.1	20.1
Total Dissolved Solids	E-10173	---	132	141	142	156
Total Organic Carbon	TOC	---	U	1.2	U	UBJ

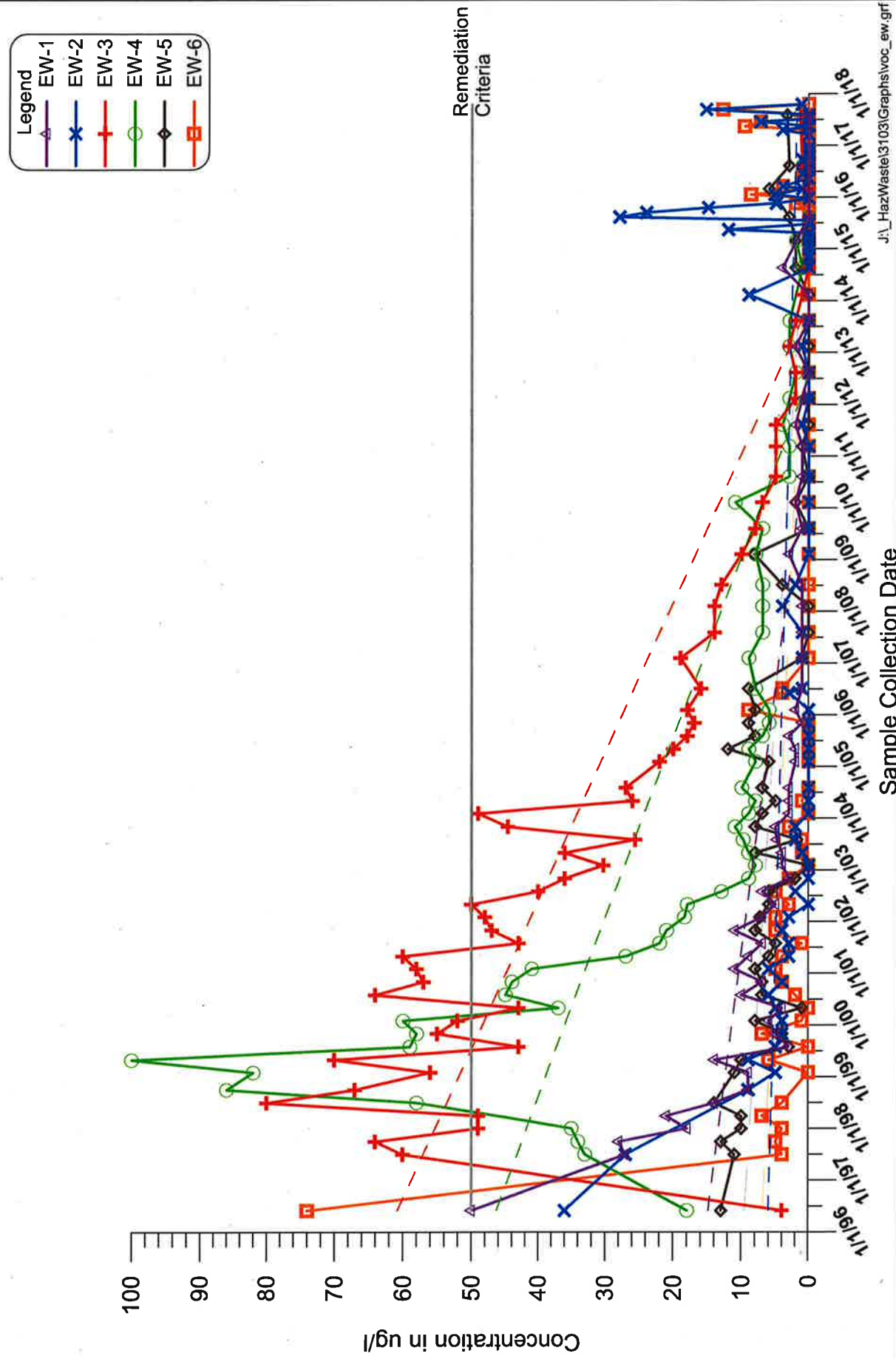
mg/l Milligrams per liter
U Compound was analyzed for but not detected
J Estimated detection limit or value
D Result was reported from a secondary dilution
-- Not analyzed or no ST or GV
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard

Exceeds Class GA Standard/Guidance value

(B) Collected by D&B during well shutdown

APPENDIX E-1

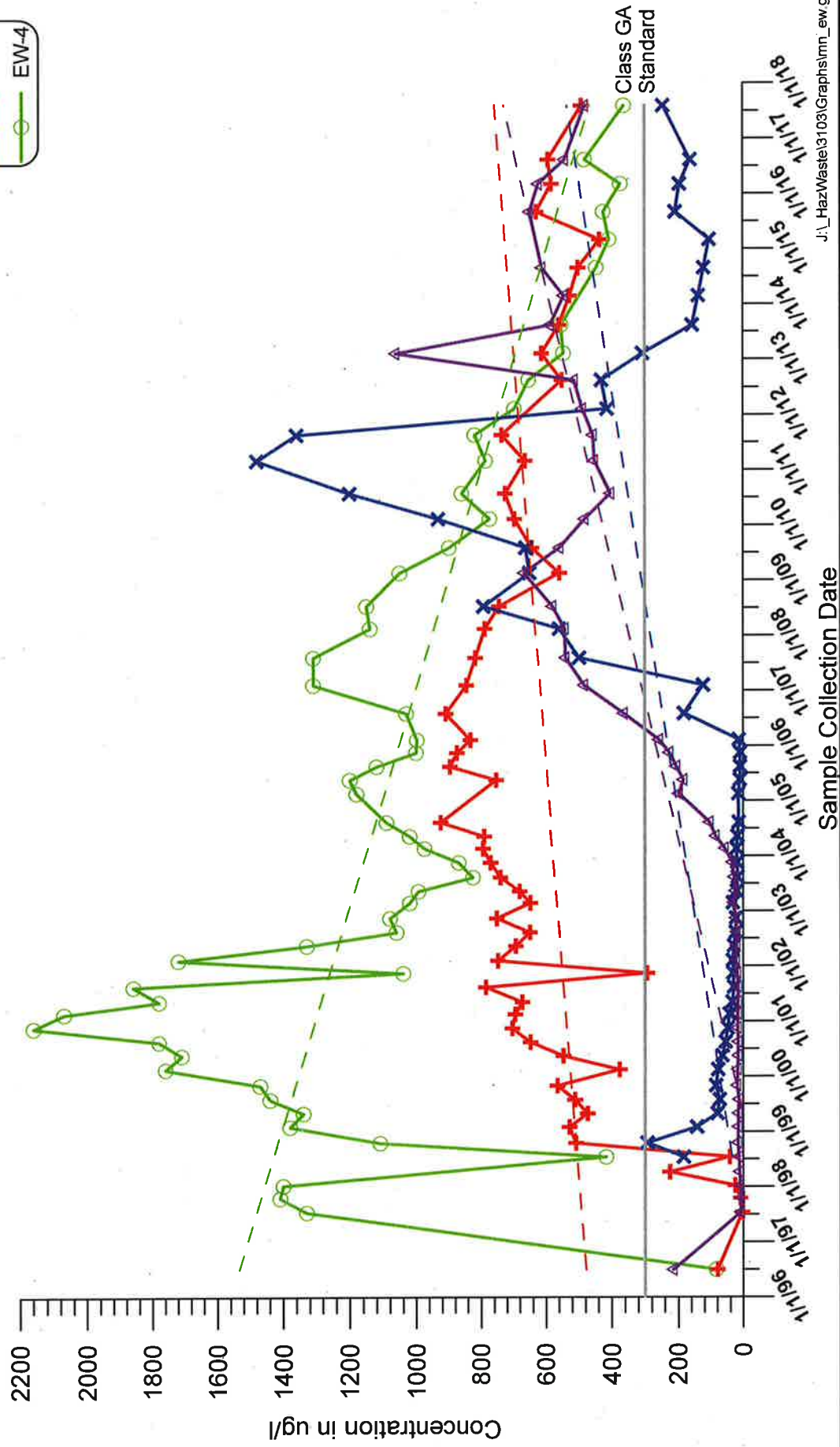
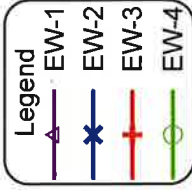
HISTORICAL TREND GRAPHS FOR EXTRACTION WELLS - TOTAL VOLATILE ORGANIC COMPOUNDS

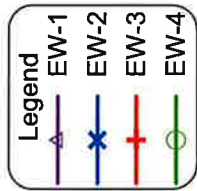


Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Selected Extraction Wells

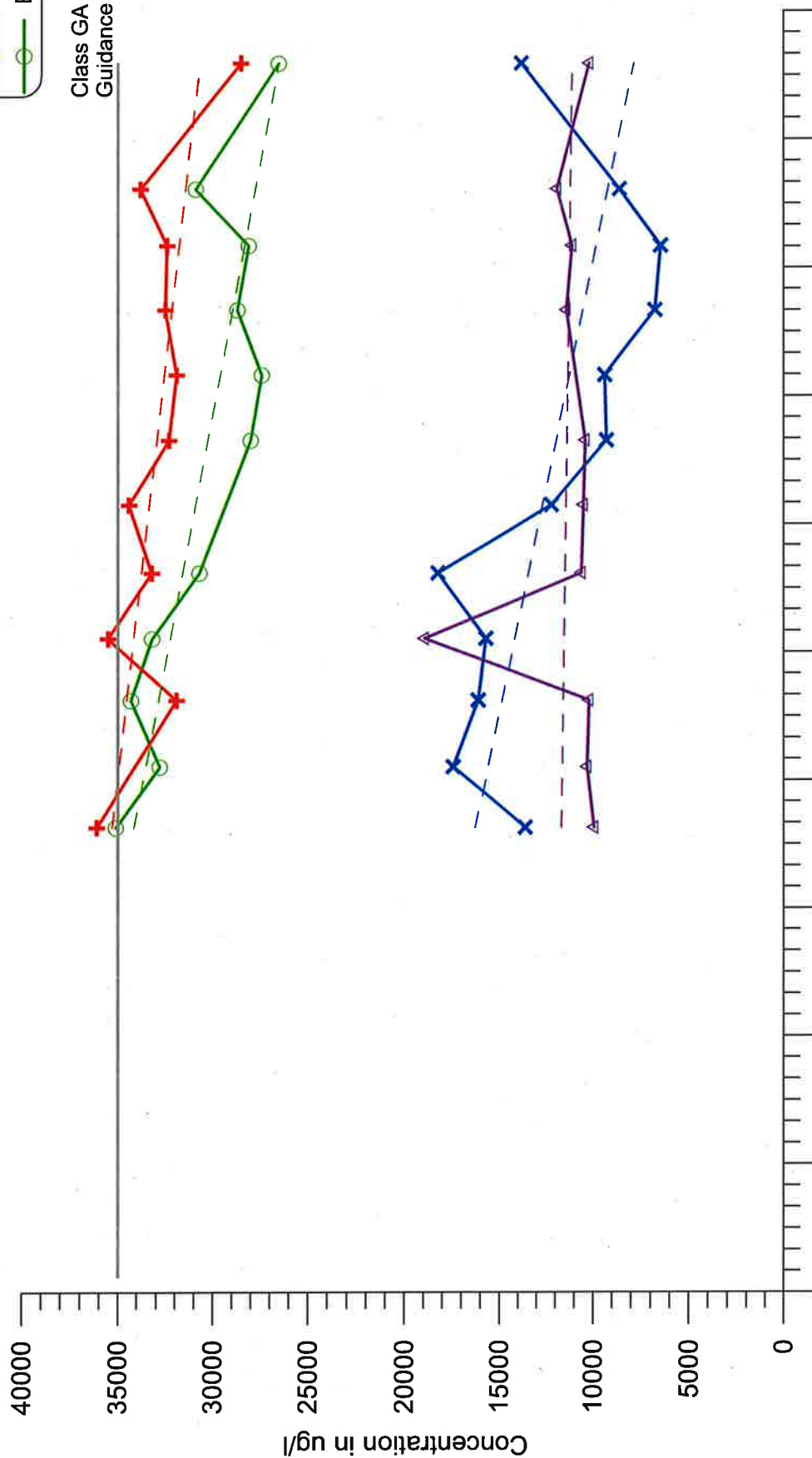
APPENDIX E-2

HISTORICAL TREND GRAPHS FOR EXTRACTION WELLS - INORGANIC PARAMETERS





Class GA
Guidance Value



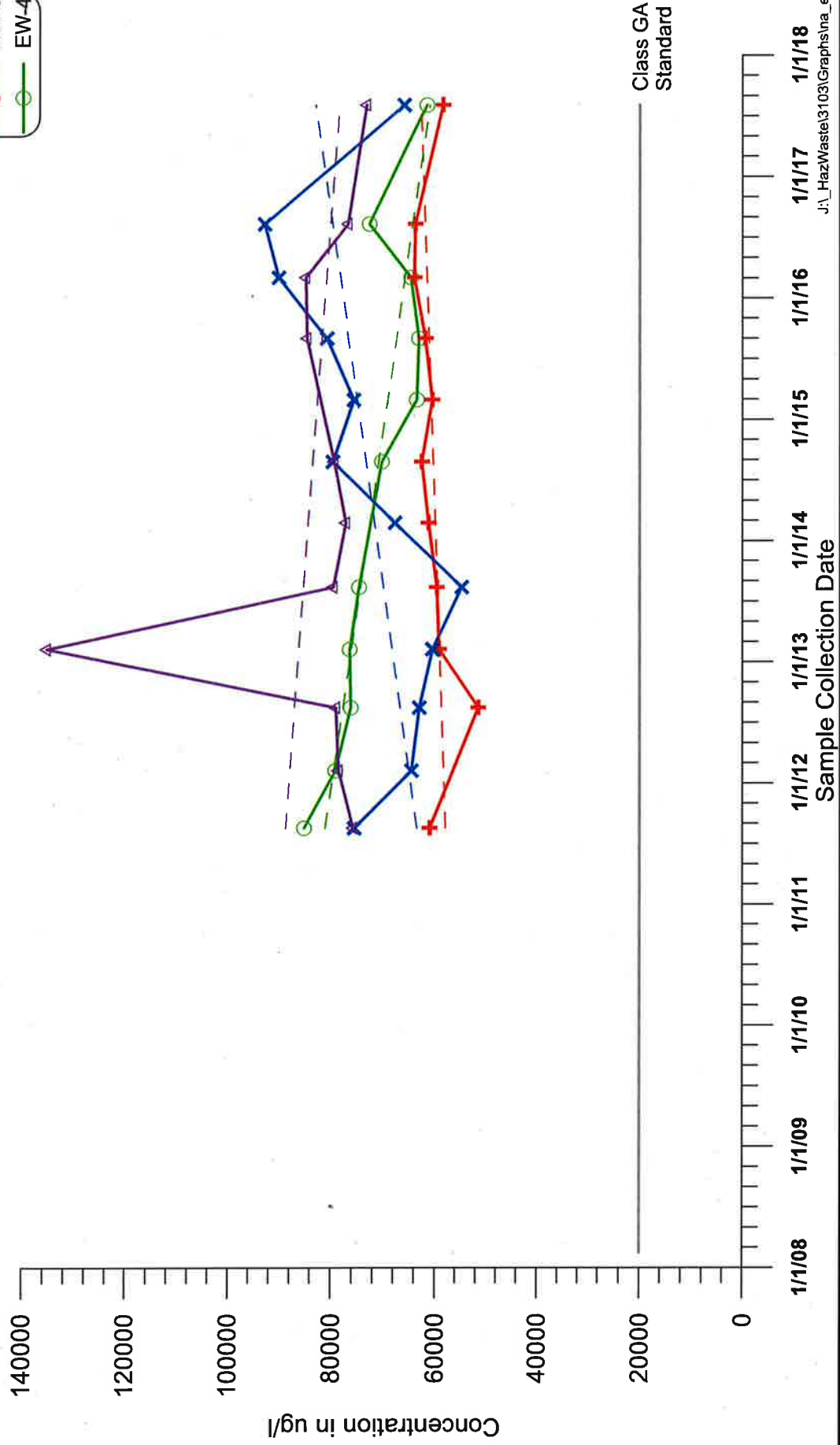
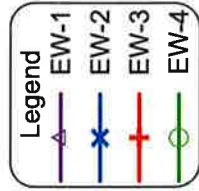
1/1/08 1/1/09 1/1/10 1/1/11 1/1/12 1/1/13 1/1/14 1/1/15 1/1/16 1/1/17 1/1/18
Sample Collection Date

J:_HazWaste\3103\Graphs\mg_ew.grf



Blydenburgh Road Landfill Complex
Historical Magnesium Data for Selected Extraction Wells

Appendix
E-2



APPENDIX E-3

HISTORICAL TREND GRAPHS FOR EXTRACTION WELLS - LEACHATE INDICATORS

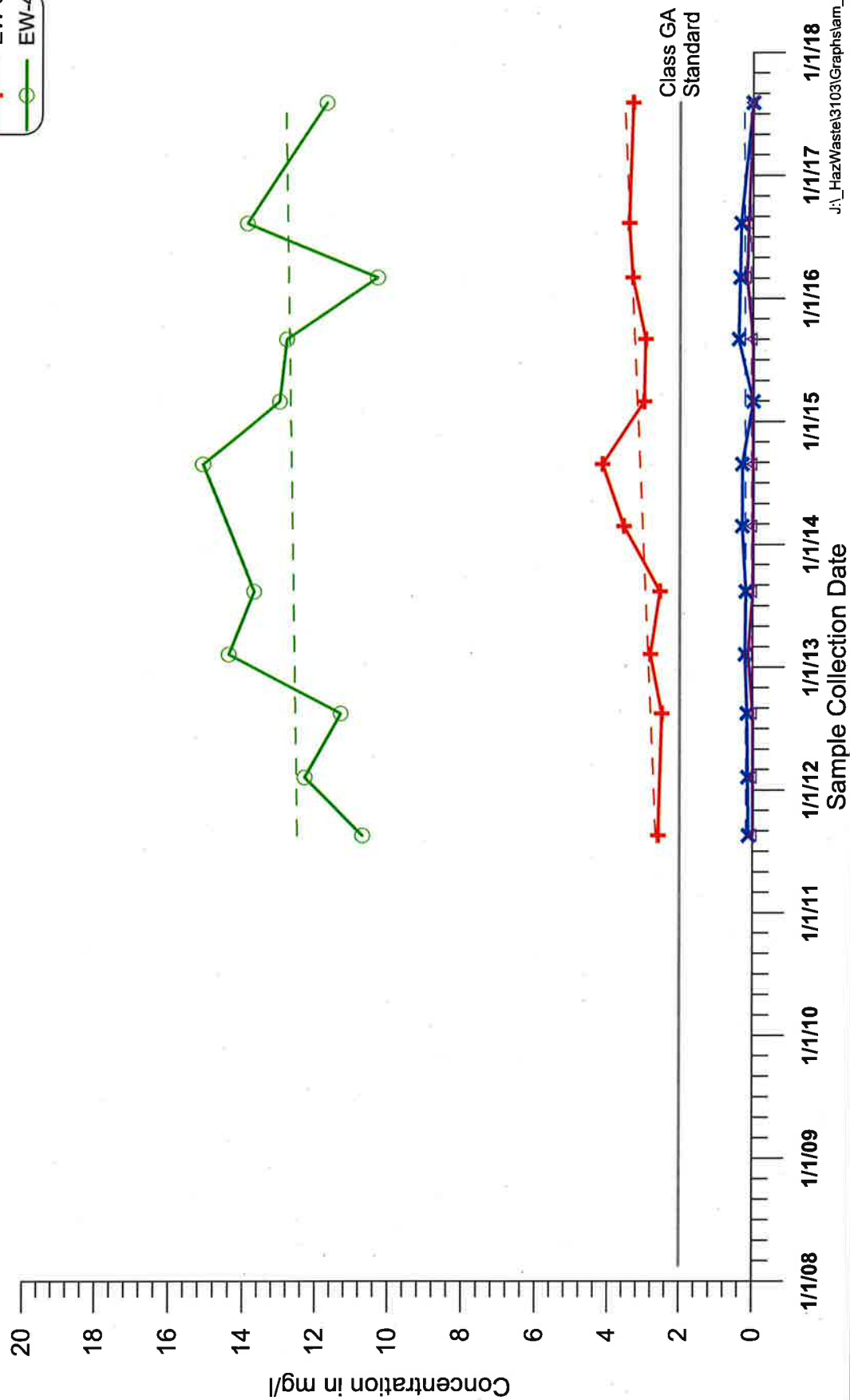


D&B ENGINEERS
AND
ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Ammonia Data for Select Extraction Wells

Appendix
E-3

J:_HazWaste\3103\Graphs\lam_ew.grf



APPENDIX F

DATA VALIDATION FORMS

DATA VALIDATION
(1st Quarter 2017- February)



DATA VALIDATION CHECKLIST

Project Name:	Blydenburgh Road Landfill		
Project Number:	3763-1B		
Sample Date(s):	February 22-24, 2017		
Sample Team:	Keith Robins		
Matrix/Number of Samples:	<u>Water/ 19</u> <u>Soil/ 0</u> <u>Field Duplicates/ 1</u> <u>Trip Blanks / 2</u> <u>Field Blanks/ 1</u>		
Analyzing Laboratory:	Pace Analytical., Melville, NY and Greensburg, PA		
Analyses:	<u>Volatile Organic Compounds (VOCs):</u> by SW846 8260C analyzed by Melville <u>Metals:</u> TAL by SW846 Method 6010C, mercury by Method 7470A and Cyanide by USEPA 9014 analyzed by Melville <u>General Chemistry:</u> 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) and Hardness (SM 2340C) analyzed by Melville; and Total Organic Carbon (USEPA 9060A) analyzed by Greensburg		
Laboratory Report No:	7011964	Date:	3/23/2017

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, August 2014, or USEPA National Functional Guidelines of Inorganic Data Review, August 2014, 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: 7011964
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Blind Sample	Analysis			
				VOC	SVOC	MET	MISC
18G-2	7011964001	2/22/2017		X		X	X
18G-1	7011964002	2/22/2017		X		X	X
8M-1	7011964003	2/22/2017		X		X	X
BLIND DUPLICATE-1	7011964004	2/22/2017	8M-1	X		X	X
8M-2	7011964005	2/22/2017		X		X	X
FIELD BLANK	7011964006	2/22/2017		X		X	X
8G-1	7011964007	2/22/2017		X		X	X
13M-1	7011964008	2/22/2017		X		X	X
13G-1	7011964009	2/22/2017		X		X	X
TRIP BLANK	7011964010	2/22/2017		X			
TRIP BLANK	7011964012	2/23/2017		X			
14M-1	7011964013	2/23/2017		X		X	X
14G-2	7011964014	2/23/2017		X		X	X
14G-1A	7011964015	2/23/2017		X		X	X
11G-2	7011964016	2/23/2017		X		X	X
11G-1	7011964017	2/23/2017		X		X	X
EW-5	7011964018	2/23/2017		X		X	X
EW-3	7011964019	2/23/2022		X		X	X
EW-4	7011964020	2/23/2023		X		X	X
22M-1	7011964021	2/23/2017		X		X	X
4M-1	7011964022	2/24/2017		X		X	X
4M-2	7011964023	2/24/2017		X		X	X
4G-2	7011964024	2/24/2017		X		X	X



ORGANIC ANALYSES VOCS

	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

%D - percent difference

RRF - relative response factor

%R - percent recovery

%RSD - percent relative standard deviation

RPD - relative percent difference

Comments:

Performance was acceptable, with the following exceptions:

- 2A-C. Acetone was detected in the trip blanks, field blank and method blank. Methylene chloride was detected in the field blank and was not detected in any of the samples. Acetone was qualified as non-detect (UB) in all samples.
6. The %R below the QC limit in the LCS for bromomethane associated with 18G-2, 18G-1, 8M-1, BLIND DUPLICATE-1, 8M-2, FIELD BLANK, 8G-1, 13M-1, 13G-1 and TRIP BLANK_2/22/17. Bromomethane was qualified as an estimated detection limit (UJ) in the associated samples.



INORGANIC ANALYSES METALS

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
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
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 exception:

- 2A. Antimony, beryllium, boron, iron, magnesium, manganese and zinc were detected in the method blank and/or preparation blank. The following metals were qualified as non-detect (UB): boron in samples 13G-1, 8M-2 and 8G-1; iron in samples 13G-1, 18G-2 BLIND DUPLICATE-1, 8M-1 and 18G-2; and zinc in sample 18G-1.



INORGANIC ANALYSES GENERAL CHEMISTRY

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Holding times		X		X	
2. Blanks					
A. Laboratory 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. Laboratory control sample %R		X		X	
7. Spike sample %R		X	X		
8. Duplicate %RPD		X		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:

2A&B. Alkalinity, biochemical oxygen demand (BOD), chemical oxygen demand (COD) and ammonia were detected in the FIELD BLANK and/or laboratory blank. The following general chemistry parameters were qualified as non-detect (UB): BOD in all samples except EW-4; COD in samples 13G-1, 14G-2, 14G-1A, EW-3, EW-4, 13M-1, 4G-2, 8M-1, BLIND DUPLICATE-1, 8G-1, 8M-2, EW-5 and 22M-1; and ammonia in samples 14G-1A, 13G-1 and 8G-1.

7. The %Rs were above the QC limit in the MS for nitrite associated with samples 4M-1, 14G-2, 14G-1A, EW-3, EW-4, EW-5, 22M-1, 11G-1, 11G-2, 4M-1, 4M-2 and 4G-2; and total kjeldahl nitrogen associated with samples 8G-1, 13M-1, 13G-1, 14M-1, 14G-2, 14G-1A, 11G-2, 11G-1, EW-5, EW-3, EW-4, 22M-1, 4M-1, 4M-2 and 4G-2. The following general chemistry parameters were qualified as estimated (J): nitrite in samples EW-4 and 4G-2 and total kjeldahl nitrogen in samples 13M-1, 14M-1, 11G-2, 11G-1, EW-3, EW-4, 22M-1, 4M-1 and 4M-2.

The %R was below QC limits in the MS for total kjeldahl nitrogen associated with samples 18G-2, 18G-1, 8M-1, BLIND DUPLICATE-1 and 8M-2. Total kjeldahl nitrogen was qualified as estimated (J) in the associated samples.



**DATA VALIDATION AND
QUALIFICATION SUMMARY**

Laboratory Numbers:7011964

Sample ID	Analyte(s)	Qualifier	Reason(s)
<u>VOCs</u>			
All samples	Acetone	UB	Detected in the trip blank, field blank and method blank
18G-2, 18G-1, 8M-1, BLIND DUPLICATE-1, 8M-2, FIELD BLANK, 8G-1, 13M-1, 13G-1 and TRIP BLANK_2/22/17	Bromomethane	UJ	The %R below the QC limit in the LCS
<u>Metals</u>			
13G-1, 8M-2 and 8G-1	Boron	UB	Detected in the method blank and/or preparation blank
13G-1, 18G-2 BLIND DUPLICATE-1, 8M-1 and 18G-2	Iron		
18G-1	Zinc		
<u>General Chemistry</u>			
All samples except EW-4	BOD	UB	Detected in the FIELD BLANK and/or laboratory blank
13G-1, 14G-2, 14G-1A, EW-3, EW-4, 13M-1, 4G-2, 8M-1, BLIND DUPLICATE-1, 8G-1, 8M-2, EW-5 and 22M-1	COD		
14G-1A, 13G-1 and 8G-1	Ammonia		
EW-4 and 4G-2	Nitrite	J	The %R was above QC limits in the spike sample
13M-1, 14M-1, 11G-2, 11G-1, EW-3, EW-4, 22M-1, 4M-1 and 4M-2	Total kjeldahl nitrogen		
18G-2, 18G-1,8M-1, BLIND DUPLICATE-1 and 8M-2	Total kjeldahl nitrogen	J	The %R was below QC limits in the MS

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 4/18/2017
VALIDATION PERFORMED BY SIGNATURE:	



DATA VALIDATION CHECKLIST

Project Name:	Blydenburgh Road Landfill – No clean fill results
Project Number:	3763-1B
Sample Date(s):	February 24, 2017
Sample Team:	Keith Robins
Matrix/Number of Samples:	Water/ 1 (4G-1) Soil/ 0 Field Duplicates/ 0 Trip Blanks / 0 Field Blanks/ 1
Analyzing Laboratory:	Pace Analytical., Melville, NY and Greensburg, PA
Analyses:	Metals: Routine by SW846 Method 6010C analyzed in Melville, NY General Chemistry: Alkalinity (SM2320B); Nitrate and Nitrite (USEPA 353.2); Chloride, Sulfate and Bromide (USEPA 300.0); Biochemical Oxygen Demand (BOD) (SM5210B); Phenolics (USEPA 420.1); Chemical Oxygen Demand (COD) (410.4); Total Dissolved Solids (SM 2540C); Ammonia (SM 4500); Total Kjeldahl Nitrogen (USEPA 351.2) and Hardness (SM 2340C) analyzed in Melville, NY and Total Organic Carbon (SM 5310B) analyzed by Greensburg, PA
Laboratory Report No:	7012031
Date:	3/23/2017

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 Inorganic Data Review, August 2014, 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.



INORGANIC ANALYSES METALS

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
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
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X		X	
12. Field duplicates RPD					X

%R - percent recovery

%D - percent difference

RPD - relative percent difference

Comments:

Performance was acceptable, with the following exception:

2A&B. Cadmium, iron, lead, magnesium, manganese, potassium and sodium were detected in the field, method and/or preparation blank. No qualification of the data was necessary.



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		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R		X		X	
6. Laboratory control sample %R		X		X	
7. Spike sample %R		X	X		
8. Duplicate %RPD		X		X	
9. Field duplicates RPD					X

%R percent recovery

RPD - relative percent difference

%D - percent difference

RSD - relative standard deviation

Comments:

Performance was acceptable, with the following exception:

2A&B Alkalinity, biochemical oxygen demand (BOD), chemical oxygen demand (COD), chloride, sulfate, nitrate and ammonia were detected in the FIELD BLANK and/or laboratory blank. BOD and nitrate were qualified as non-detect (UB) in sample 4G-1.

7. The %R was above the QC limit in the MS for nitrite associated with samples 4G-1 and FIELD BLANK_2/24/17. It was not detected therefore qualification of the data was not necessary.

The %R was below QC limits in the MS for total kjeldahl nitrogen associated with samples 4G-1 and FIELD BLANK_2/24/17. Total kjeldahl nitrogen was qualified as estimated (J/UJ) in samples 4G-1 and FIELD BLANK_2/24/17.



**DATA VALIDATION AND
QUALIFICATION SUMMARY**

Laboratory Numbers:7012031

Sample ID	Analyte(s)	Qualifier	Reason(s)
<u>Metals</u>			
No qualification of the data was necessary.			
<u>General Chemistry</u>			
4G-1	BOD and nitrate	UB	Detected in the FIELD BLANK and/or laboratory blank
4G-1 and FIELD BLANK_2/24/17	Total kjeldahl nitrogen	J	The %R was below QC limit in the spike sample

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 4/18/2017
VALIDATION PERFORMED BY SIGNATURE:	



DATA VALIDATION CHECKLIST

Project Name:	Blydenburgh Road Landfill
Project Number:	3763-1B
Sample Date(s):	February 24& 28, March 1& 2, 2017
Sample Team:	Keith Robins
Matrix/Number of Samples:	Water/ 12 Soil/ 0 Field Duplicates/ 1 Trip Blanks / 4 Field Blanks/ 1
Analyzing Laboratory:	Pace Analytical., Melville, NY and Greensburg, PA
Analyses:	<u>Volatile Organic Compounds (VOCs):</u> by SW846 8260C analyzed by Melville <u>Metals:</u> TAL by SW846 Method 6010C, mercury by Method 7470A and Cyanide by USEPA 9014 analyzed by Melville <u>General Chemistry:</u> 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) and Hardness (SM 2340C) analyzed by Melville; and Total Organic Carbon (USEPA 9060A) analyzed by Greensburg
Laboratory Report No:	7012116
	Date:3/24/2017

ANALYTICAL DATA PACKAGE DOCUMENTATION GENERAL INFORMATION

	Reported		Performance		Not Required
	No	Yes	No	Yes	
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, August 2014, or USEPA National Functional Guidelines of Inorganic Data Review, August 2014, 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: 7012116
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Blind Sample	Analysis			
				VOC	SVOC	MET	MISC
10M-1	7012116001	2/24/2017		X		X	X
16M-1	7012116002	2/24/2017		X		X	X
TRIP BLANK	7012116003	2/24/2017		X			
EW-6	7012116005	2/28/2017		X		X	X
7M-1	7012116006	2/28/2017		X		X	X
EW-1	7012116007	2/28/2017		X		X	X
TRIP BLANK	7012116008	2/28/2017		X			
FIELD BLANK	7012116009	3/1/2017		X		X	X
23M-1	7012116010	3/1/2017		X		X	X
BLIND DUPLICATE-2	7012116011	3/1/2017	23M-1	X		X	X
EW-2	7012116012	3/1/2017		X		X	X
GM-1I	7012116013	3/1/2017		X		X	X
TRIP BLANK	7012116014	3/1/2017		X			
6G-3	7012116015	3/2/2017		X		X	X
6G-2	7012116016	3/2/2017		X		X	X
6G-1	7012116017	3/2/2017		X		X	X
12M-1	7012116018	3/2/2017		X		X	X
TRIP BLANK	7012116019	3/2/2017		X			



ORGANIC ANALYSES

VOCS

	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

%D - percent difference

RRF - relative response factor

%R - percent recovery

%RSD - percent relative standard deviation

RPD - relative percent difference

Comments:

Performance was acceptable, with the following exceptions:

2B-C. Acetone was detected in the trip blanks and field blank. Methylene chloride was detected in the field blank and was not detected in any of the samples. Acetone was qualified as non-detect (UB) in samples 16M-1, EW-6, EW-1, EW-2, BLIND DUPLICATE-2, 7M-1, 23M-1, GM-1I, 6G-3, 6G-2, 6G-1 and 12M-1.

3-5. The %Rs were above the QC limit in the MS and/ or MSD for 1,1,1,2-tetrachloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane (EDB), 1,2-dichloroethane, 1,2-dichloropropane, 4-methyl-2-pentanone (MIBK), acrylonitrile, benzene, bromochloromethane, bromodichloromethane, chlorobenzene, chloroform, trichloroethene, cis-1,2-dichloroethene, cis-1,3-dichloropropene, trans-1,3-dichloropropene and trans-1,4-dichloro-2-butene. The RPD was above the QC limit in the MS/MSD for all compounds except bromomethane. These QC samples were associated with samples TRIP BLANK_2/28/17, FIELD BLANK_3/1/17, TRIP BLANK_3/1/17, TRIP BLANK 3/2/17, EW-6, 7M-1, EW-1, 23M-1, BLIND DUPLICATE-2, EW-2, 6G-3 and GM-1I. The following compounds were qualified as estimated (J): methylene chloride in sample Field blank 3/1/17; trichloroethene in samples 7M-1, 23M-1 and BLIND DUPLICATE-2; 1,1,1-trichloroethane in sample 7M-1; and chlorobenzene, 1,2-dichlorobenzene and 1,4-dichlorobenzene in sample 6G-3.

6. The %Rs were below QC limits in the LCS for bromomethane, chloroethane, dichlorofluoromethane and trichlorofluoromethane associated with samples TRIP BLANK_2/28/17, FIELD BLANK_3/1/17, TRIP BLANK_3/1/17, TRIP BLANK 3/2/17,

EW-6, 7M-1, EW-1, 23M-1, BLIND DUPLICATE-2, EW-2, 6G-3 and GM-1I. The above compounds were qualified as an estimated detection limit (UJ) in the associated samples.

INORGANIC ANALYSES METALS

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
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
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, barium, boron, cobalt, magnesium, manganese, mercury, potassium, selenium, sodium, thallium, vanadium and zinc 1.5 were detected in the field blank, initial blank and/or preparation blank. The following metals were qualified as non-detect (UB): antimony in samples 6G-1 and 16M-1; cobalt in samples 10M-1, 23M-1 and BLIND DUPLICATE-2; manganese in samples GM-1I, 10M-1, 7M-1, EW-6 and 16M-1; mercury in all samples; vanadium in samples 23M-1 BLIND DUPLICATE-2, GM-1I, 10M-1 and 16M-1; and zinc in samples 23M-1, BLIND DUPLICATE-2, 10M-1, EW-6 and 12M-1.

- The RPD was above QC limits for lead in the duplicate associated with samples FIELD BLANK_3/1/17, 23M-1, BLIND DUPLICATE-2, EW-2, GM-1I, 6G-3, 6G-2, 6G-1 and 12M-1. Lead was qualified as estimated (J/UJ) in the associated samples.

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		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R		X		X	
6. Laboratory control sample %R		X		X	
7. Spike sample %R		X		X	
8. Duplicate %RPD		X		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 7M-1, EW-1 and EW-6 and cyanide associated with 10M-1, 16M-1, 7M-1, EW-1 and EW-6. They were qualified as an estimated detection limit (UJ) in associated samples.
2. 2A&B. Alkalinity, chloride, biochemical oxygen demand (BOD), chemical oxygen demand (COD), cyanide, hexavalent chromium, nitrate and nitrite were detected in the FIELD BLANK_3/1/17 and/or method blank. The following general chemistry parameters were qualified as non-detect (UB): BOD, cyanide, COD and nitrite in all samples; and ammonia in samples 23M-1, EW-6, GM-1I, BLIND DUPLICATE-2, 16M-1, 6G-1, 6G-2, EW-1 and EW-2.
6. The %R was above the QC limit in the MS for nitrite associated with samples 10M-1, EW-6, EW-1, 7M-1, FIELD BLANK, 23M-1, BLIND DUPLICATE-2, EW-2, GM-1I, 6G-3, 6G-2, 6G-1 and 12M-1. It was not detected above the reporting limit therefore qualification of the data was not necessary.

The %R was below QC limits in the MS for alkalinity associated with samples EW-1, 7M-1, FIELD BLANK, 23M-1, BLIND DUPLICATE-2, EW-2, GM-1I, 6G-3, 6G-2, 6G-1 and 12M-1; and total kjeldahl nitrogen associated with samples BLIND DUPLICATE-2, 6G-3, 6G-1, and 12M-1. Alkalinity and total kjeldahl nitrogen were qualified as estimated (J/UJ) in associated samples.

9. Sample 23M-1 was field duplicated and labeled BLIND DUPLICATE-2. Based on field duplicate results total kjeldahl nitrogen was qualified as estimated (J/UJ) in samples 23M-1 and BLIND DUPLICATE-2



DATA VALIDATION AND QUALIFICATION SUMMARY

Laboratory Numbers:7012116

Sample ID	Analyte(s)	Qualifier	Reason(s)
<u>VOCs</u>			
16M-1, EW-6, EW-1, EW-2, BLIND DUPLICATE-2, 7M-1, 23M-1, GM-1I, 6G-3, 6G-2, 6G-1 and 12M-1	Acetone	UB	Detected in the trip blank, field blank and method blank
Field blank 3/1/17	Methylene chloride	J	The %Rs were above the QC limit in the MS and/ or MSD
7M-1, 23M-1 and BLIND DUPLICATE-2	Trichloroethene		
7M-1	1,1,1-Trichloroethane		
6G-3	Chlorobenzene, 1,2- dichlorobenzene and 1,4- dichlorobenzene		
TRIP BLANK_2/28/17, FIELD BLANK_3/1/17 , TRIP BLANK_3/1/17 , TRIP BLANK 3/2/17, EW-6, 7M-1, EW-1, 23M-1, BLIND DUPLICATE-2, EW-2, 6G-3and GM-1I.	Bromomethane, chloroethane, dichlorofluoromethane and trichlorofluoromethane	UJ	The %Rs were below QC limits in the LCS
<u>Metals</u>			
6G-1 and 16M-1	Antimony	UB	Detected in the initial blank, preparation blank and/or field blank
10M-1, 23M-1 and BLIND DUPLICATE-2	Cobalt		
GM-1I, 10M-1, 7M-1, EW-6 and 16M-1	Manganese		
All samples	Mercury		
23M-1 BLIND DUPLICATE-2, GM-1I, 10M-1 and 16M-1	Vanadium		
23M-1, BLIND DUPLICATE- 2, 10M-1, EW-6 and 12M-1	Zinc		
FIELD BLANK_3/1/17, 23M-1, BLIND DUPLICATE-2, EW-2, GM-1I, 6G-3,6G-2,6G-1 and 12M-1.	Lead	J/UJ	The RPD was above QC limits in the duplicate
<u>General Chemistry</u>			
7M-1, EW-1 and EW-6	Hexavalent chromium	UJ	Analyzed outside of holding times
10M-1, 16M-1, 7M-1, EW-1 and EW-6	Cyanide		



Sample ID	Analyte(s)	Qualifier	Reason(s)
General Chemistry continued			
All samples	BOD, cyanide, COD and nitrite	UB	Detected in the FIELD BLANK_3/1/17 and/or method blank
23M-1, EW-6, GM-1I, BLIND DUPLICATE-2,16M-1, 6G-1, 6G-2, EW-1 and EW-2	Ammonia		
EW-1, 7M-1, FIELD BLANK, 23M-1, BLIND DUPLICATE-2, EW-2, GM-1I, 6G-3, 6G-2, 6G-1 and 12M-1	Alkalinity	J/UJ	The %R was below QC limits in the MS
BLIND DUPLICATE-2, 6G-3, 6G-1, and 12M-1	Total kjeldahl nitrogen		
23M-1 and BLIND DUPLICATE-2	Total kjeldahl nitrogen	J/UJ	Field duplicate results

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 4/18/2017
VALIDATION PERFORMED BY SIGNATURE:	

DATA VALIDATION
(3rd Quarter 2017 – August)



DATA VALIDATION CHECKLIST

Project Name:	Blydenburgh Road Landfill	
Project Number:	3763-1B	
Sample Date(s):	August 2 to 9, 2017	
Sample Team:	Keith Robins	
Matrix/Number of Samples:	Water/ 19 Soil/ 0 Field Duplicates/ 1 Trip Blanks / 5 Field Blanks/ 1	
Analyzing Laboratory:	Pace Analytical., Melville, NY	
Analyses:	<u>Volatile Organic Compounds (VOCs):</u> by SW846 8260C <u>Metals:</u> TAL by SW846 Method 6010C, mercury by Method 7470A and Cyanide by USEPA 9014 <u>General Chemistry:</u> 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)	
Laboratory Report No:	7026094	Date: 10/20/2017

ANALYTICAL DATA PACKAGE DOCUMENTATION GENERAL INFORMATION

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
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: 7026094

SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Blind Sample	Analysis			
				VOC	SVOC	MET	MISC
14M-1	7026094001	8/2/2017		X		X	X
14G-1A	7026094002	8/2/2017		X		X	X
14G-2	7026094003	8/2/2017		X		X	X
18G-2	7026094004	8/2/2017		X		X	X
18G-1	7026094005	8/2/2017		X		X	X
TRIP BLANK	7026094006	8/2/2017		X			
EW-3	7026094008	8/3/2017		X		X	X
EW-4	7026094009	8/3/2017		X		X	X
11G-1	7026094010	8/3/2017		X		X	X
11G-2	7026094011	8/3/2017		X		X	X
11M-1	7026094012	8/3/2017		X		X	X
TRIP BLANK	7026094013	8/3/2017		X			
EW-2	7026094014	8/4/2017		X		X	X
EW-5	7026094015	8/4/2017		X		X	X
EW-1	7026094016	8/4/2017		X		X	X
TRIP BLANK	7026094017	8/4/2017		X			
GM-1D	7026094018	8/8/2017		X		X	X
9G-1	7026094019	8/8/2017		X		X	X
TRIP BLANK	7026094020	8/8/2017		X			
6G-1	7026094021	8/9/2017		X		X	X
6G-2	7026094022	8/9/2017		X		X	X
6G-3	7026094023	8/9/2017		X		X	X
12M-1	7026094024	8/9/2017		X		X	X
BLIND DUPLICATE A	7026094025	8/9/2017	6G-3	X		X	X
FIELD BLANK	7026094026	8/9/2017		X		X	X
TRIP BLANK	7026094027	8/9/2017		X			



ORGANIC ANALYSES VOCS

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
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

%D - percent difference

RRF - relative response factor

%R - percent recovery

%RSD - percent relative standard deviation

RPD - relative percent difference

Comments:

Performance was acceptable, with the following exceptions:

- 2A-C. Acetone was detected in the field blank. Acetone was qualified as non-detect (UB) in samples 18G-1, 11G-1, BLIND DUPLICATE A, 6G-2 and 14M-1.
6. The %R above the QC limit in the LCS for 1,1,1,2-tetrachloroethane associated with samples 9G-1, TRIP BLANK, 6G-1, 6G-2, 6G-3, 12M-1, BLIND DUPLICATE A, FIELD BLANK and TRIP BLANK. 1,1,1,2-Tetrachloroethane was not detected in the samples therefore qualification of the data was not necessary.



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
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 exception:

2A&B. Aluminum, beryllium, boron, calcium, iron, manganese, mercury, nickel, thallium and zinc were detected in the field blank, method blank and/or preparation blank. The following metals were qualified as non-detect (UB): aluminum in samples 6G-3, 14M-1, 11G-2, EW-5, GM-1D, 14G-2, 11G-1, 18G-1, 6G-2, BLIND DUPLICATE A, 14G-1A, 12M-1, 18G-2 and 11M-1; boron in samples 11M-1, EW-5 and 9G-1; iron in samples EW-4, EW-5 and GM-1D; mercury in all samples and zinc in samples GM-1D, 18G-1, 6G-2, EW-2, EW-3, EW-4, 18G-2, 11M-1 and 12M-1.

INORGANIC ANALYSES GENERAL CHEMISTRY

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Holding times		X	X		
2. Blanks					
A. Laboratory 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. Laboratory control sample %R		X		X	
7. Spike sample %R		X	X		
8. Duplicate RPD		X		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:

- Hexavalent chromium was analyzed outside the holding time for samples 6G-1, 6G-2, 6G-3, 9G-1, 11G-1, 11G-2, 11M-1, 14G-1A, 14G-2, 14M-1, 18G-1, 18G-2, and BLIND DUPLICATE A and was qualified as an estimated detection limit (UJ).
- 2A&B. Total kjeldahl nitrogen (TKN), hexavalent chromium, alkalinity, biochemical oxygen demand (BOD), chloride, nitrate, nitrite, phenolics and ammonia were detected in the FIELD BLANK and/or laboratory blank. The following general chemistry parameters were qualified as non-detect (UB): TKN in samples 14G-2, 6G-1, 6G-2, EW-2, 14G-1A, 9G-1 and 11M-1; hexavalent chromium in samples 18G-2, 18G-1, 14G-2, EW-3, 14M-1, EW-4, 6G-3, 6G-2, BLIND DUPLICATE A, 14G-1A, 12M-1, 9G-1 and 6G-1; BOD in samples 14G-1A, 14G-2, 18G-2, 18G-1, EW-3, 11M-1, EW-2, EW-5, EW-1, 9G-1, 6G-1, 6G-2, 12M-1, GM-1D, 14M-1, 11G-2 and 6G-3; nitrate in samples 11M-1, 6G-3, 9G-1, BLIND DUPLICATE A, 11G-2, 18G-1, 11G-1, 6G-2, 12M-1 and 6G-1; nitrite in samples 6G-1, 11G-1, 12M-1, 14M-1, 18G-2, 11G-2, 6G-3, EW-2 and BLIND DUPLICATE A; phenolics samples 11G-2, 11M-1, 14G-1A, 18G-2, 14G-2, EW-5, 9G-1, 6G-3, 12M-1, BLIND DUPLICATE A, EW-3, EW-2, 6G-2, EW-1 and GM-1D; and ammonia in samples 6G-1, 6G-2, EW-1, 9G-1, 14G-2, 11M-1, 12M-1, EW-5, EW-2 and 14G-1A.
- The %R was below the QC limit in the spike for alkalinity associated with samples EW-3, EW-4, 9G-1, 6G-1, 6G-2, 6G-3, 12M-1, BLIND DUPLICATE A and FIELD BLANK; nitrate associated with samples EW-3, EW-4, 11G-1, 11G-2, 11M-1, EW-2, EW-5, EW-1 and GM-1D; nitrite associated with samples 14M-1, 14G-1A, 14G-2, 18G-2 and 18G-1 and ammonia associated with samples GM-1D, EW-1, EW-2, EW-3, EW-4, EW-5, 11G-1, 11G-2, 11M-1, 6G-1, 6G-2, 6G-3, 9G-1, 12M-1, 18G-1, FIELD BLANK and BLIND DUPLICATE A. The above general chemistry parameters were qualified as estimated (J/UJ) in associated samples.

The %R was above the QC limit in the spike for nitrate associated with samples 6G-1, 6G-2, 6G-3, 12M-1 and BLIND DUPLICATE A and total kjeldahl nitrogen associated with samples 14M-1, 14G-1A, 14G-2, 18G-2, 18G-1, EW-3, EW-4, 11G-1, 11G-2, 11M-1, EW-2, EW-5, EW-1 GM-1D, 9G-1, 6G-1, 6G-2, 6G-3, 12M-1, BLIND DUPLICATE A and FIELD BLANK. Total kjeldahl nitrogen was qualified as estimated (J) in samples GM-1D, EW-3, EW-4, 6G-3, 11G-1, 11G-2, 12M-1, 14M-1, 18G-1, 18G-2, BLIND DUPLICATE A and FIELD BLANK.

8. The RPD was above the QC limit in the duplicate for alkalinity associated with samples EW-3 and EW-4; chemical oxygen demand associated with samples GM-1D, EW-1, EW-2, EW-5, 6G-1, 6G-2, 6G-3, 9G-1, 12M-1 and BLIND DUPLICATE A; total kjeldahl nitrogen associated with samples 9G-1, 6G-1, 6G-2, 6G-3, 12M-1, BLIND DUPLICATE A and FIELD BLANK. The above general chemistry parameters were qualified as estimated (J/UJ) in associated samples.
9. Sample 6G-3 was field duplicated and labeled BLIND DUPLICATE A. The following general chemistry parameters, BOD and true color, were qualified as estimated (J/UJ) based on field duplicate results in sample 6G-3 and BLIND DUPLICATE A.



DATA VALIDATION AND QUALIFICATION SUMMARY

Laboratory Numbers:7026094

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
18G-1, 11G-1, BLIND DUPLICATE A, 6G-2 and 14M-1.	Acetone	UB	Detected in the field blank.
Metals			
6G-3, 14M-1, 11G-2, EW-5, GM-1D, 14G-2, 11G-1, 18G-1, 6G-2, BLIND DUPLICATE A, 14G-1A, 12M-1, 18G-2 and 11M-1	Aluminum	UB	Detected in the field blank, method blank and/or preparation blank
11M-1, EW-5 and 9G-1	Boron		
EW-4, EW-5 and GM-1D	Iron		
All samples	Mercury		
GM-1D, 18G-1, 6G-2, EW-2, EW-3, EW-4, 18G-2, 11M-1 and 12M-1	Zinc		
General Chemistry			
6G-1, 6G-2, 6G-3, 9G-1, 11G-1, 11G-2, 11M-1, 14G-1A, 14G-2, 14M-1, 18G-1, 18G-2, and BLIND DUPLICATE A	Hexavalent chromium	UJ	Analyzed outside the holding time
14G-2, 6G-1, 6G-2, EW-2, 14G-1A, 9G-1 and 11M-1	TKN	UB	Detected in the FIELD BLANK and/or laboratory blank
18G-2, 18G-1, 14G-2, EW-3, 14M-1, EW-4, 6G-3, 6G-2, BLIND DUPLICATE A, 14G-1A, 12M-1, 9G-1 and 6G-1	Hexavalent chromium		
14G-1A, 14G-2, 18G-2, 18G-1, EW-3, 11M-1, EW-2, EW-5, EW-1, 9G-1, 6G-1, 6G-2, 12M-1, GM-1D, 14M-1, 11G-2 and 6G-3	BOD		
11M-1, 6G-3, 9G-1, BLIND DUPLICATE A, 11G-2, 18G-1, 11G-1, 6G-2, 12M-1 and 6G-1	Nitrate		
6G-1, 11G-1, 12M-1, 14M-1, 18G-2, 11G-2, 6G-3, EW-2 and BLIND DUPLICATE A	Nitrite		
11G-2, 11M-1, 14G-1A, 18G-2, 14G-2, EW-5, 9G-1, 6G-3, 12M-1, BLIND DUPLICATE A, EW-3, EW-2, 6G-2, EW-1 and GM-1D	Phenolics		
6G-1, 6G-2, EW-1, 9G-1, 14G-2, 11M-1, 12M-1, EW-5, EW-2 and 14G-1A	Ammonia		



Sample ID	Analyte(s)	Qualifier	Reason(s)
EW-3, EW-4, 9G-1, 6G-1, 6G-2, 6G-3, 12M-1, BLIND DUPLICATE A and FIELD BLANK	Alkalinity	J/UJ	The %R was below QC limits in the MS
EW-3, EW-4, 11G-1, 11G-2, 11M-1, EW-2, EW-5, EW-1 and GM-1D;	Nitrate		
14M-1, 14G-1A, 14G-2, 18G-2 and 18G-1	Nitrite		
GM-1D, EW-1, EW-2, EW-3, EW-4, EW-5, 11G-1, 11G-2, 11M-1, 6G-1, 6G-2, 6G-3, 9G-1, 12M-1, 18G-1, FIELD BLANK and BLIND DUPLICATE A	Ammonia		
GM-1D, EW-3, EW-4, 6G-3, 11G-1, 11G-2, 12M-1, 14M-1, 18G-1, 18G-2, BLIND DUPLICATE A and FIELD BLANK	Total kjeldahl nitrogen	J	The %R was above QC limits in the spike sample

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 10/31/2017
VALIDATION PERFORMED BY SIGNATURE:	



DATA VALIDATION CHECKLIST

Project Name:	Blydenburgh Road Landfill	
Project Number:	3763-1B	
Sample Date(s):	August 9-14, 2017	
Sample Team:	Keith Robins	
Matrix/Number of Samples:	Water/ 19 Soil/ 0 Field Duplicates/ 1 Trip Blanks / 2 Field Blanks/ 1	
Analyzing Laboratory:	Pace Analytical., Melville, NY	
Analyses:	<u>Volatile Organic Compounds (VOCs):</u> by SW846 8260C <u>Metals:</u> TAL by SW846 Method 6010C, mercury by Method 7470A and Cyanide by USEPA 9014 <u>General Chemistry:</u> 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)	
Laboratory Report No:	7026754	Date:9/5/2017

ANALYTICAL DATA PACKAGE DOCUMENTATION GENERAL INFORMATION

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
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: 7026094

SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Blind Sample	Analysis			
				VOC	SVOC	MET	MISC
6M-1	7026754001	8/9/2017		X		X	X
10M-1	7026754003	8/10/2017		X		X	X
10G-1	7026754004	8/10/2017		X		X	X
16M-1	7026754005	8/10/2017		X		X	X
16G-1	7026754006	8/10/2017		X		X	X
23M-1	7026754007	8/10/2017		X		X	X
7M-1	7026754008	8/10/2017		X		X	X
BLIND DUPLICATE-B	7026754009	8/10/2017	16G-1	X		X	X
TRIP BLANK	7026754010	8/10/2017		X			
4M-2	7026754011	8/11/2017		X		X	X
4G-2	7026754012	8/11/2017		X		X	X
4M-1	7026754013	8/11/2017		X		X	X
4G-1	7026754014	8/11/2017		X		X	X
22M-1	7026754015	8/11/2017		X		X	X
13G-1	7026754016	8/11/2017		X			
13M-1	7026754017	8/11/2017		X		X	X
TRIP BLANK	7026754018	8/11/2017		X			
EW-6	7026754019	8/11/2017		X		X	X
8G-1	7026754020	8/14/2017		X		X	X
8M-1	7026754021	8/14/2017		X		X	X
15G-1	7026754022	8/14/2017		X		X	X
GM-2S	7026754023	8/14/2017		X		X	X
FIELD BLANK	7026754024	8/14/2017		X		X	X

ORGANIC ANALYSES

VOCS

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
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

%D - percent difference

RRF - relative response factor

%R - percent recovery

%RSD - percent relative standard deviation

RPD - relative percent difference

Comments:

Performance was acceptable, with the following exceptions:

- 2A. Acetone and methylene chloride were detected in the laboratory blank. Acetone was qualified as non-detect (UB) in all samples if detected.
6. The %R above the QC limit in the MS for bromochloromethane, cis-1,2-dichloroethene, toluene, total xylene and vinyl acetate and below the QC limit for trans-1,4-dichloro-2-butene associated with samples 6M-1, 10M-1, 10G-1, 16M-1, 16G-1, and 23M-1. The %R above the QC limit in the MS for total xylene associated with samples TRIP BLANK 8/10/17, 4M-2, 4G-2, 4M-1, 4G-1, 22M-1, 13G-1, 13M-1, TRIP BLANK 8/11/17 and EW-6. The RPD was above the QC limit in the MS/MSD for acrylonitrile, methylene chloride, trans-1,2-dichloroethene, 1,1-dichloroethene, 2-butanone (MEK), bromomethane, carbon disulfide, chlorodifluoromethane, chloroethane, dichlorofluoromethane, iodomethane and trichlorofluoromethane associated with samples 8G-1, 8M-1, 15G-1, GM-2S FIELD BLANK 8/14/17. Trans-1,4-dichloro-2-butene was qualified as an estimated detection limit (UJ) in samples 6M-1, 10M-1, 10G-1, 16M-1, 16G-1, and 23M-1.

INORGANIC ANALYSES METALS

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
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 exception:

2A&B. Boron, cadmium, calcium, iron, manganese, mercury and sodium were detected in the field blank, method blank and/or preparation blank. The following metals were qualified as non-detect (UB): boron in samples BLIND DUPLICATE-B, 16G-1, 15G-1, GM-2S, 10G-1, 13G-1, 7M-1, 8G-1 and EW-6; cadmium in samples 6M-1, 4M-2, 4G-1, 16M-1, 4M-1, 7M-1, 4G-2 and GM-2S; mercury in all samples except 8M-1; and sodium in BLIND DUPLICATE-B and 16G-1.

8&9. The %R for silver was above the QC limit in the spike and post spike associated with the FIELD BLANK. Silver was qualified as estimated bias high (JH) in the FIELD BLANK.

10. The RPD for iron was above the QC limit in the duplicate associated with the FIELD BLANK. Iron was qualified as estimated (J) in the FIELD BLANK.

The RPD for mercury was above the QC limit in the duplicate associated with 6M-1, 10M-1, 10G-1, 16M-1, 16G-1, 23M-1, 7M-1, BLIND DUPLICATE-, 4M-2, 4G-2, 4M-1, 4G-1, 22M-1 and 13G-1. Mercury was qualified at an estimated detection limit (UJ) in associated samples.



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		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R		X		X	
6. Laboratory control sample %R		X		X	
7. Spike sample %R		X	X		
8. Duplicate RPD		X	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:

- Hexavalent chromium was analyzed outside the holding time for samples 15G-1, 16G-1, 23M-1, 6M-1, 8G-1, 8M-1, GM-2S, 10G-1, 10M-1, 16M-1 and BLIND DUPLICATE-B and was qualified as an estimated detection limit (UJ).
- 2A&B. Total kjeldahl nitrogen (TKN), biochemical oxygen demand (BOD), chloride, nitrite, TOC, phenolics and ammonia were detected in the FIELD BLANK and/or laboratory blank. The following general chemistry parameters were qualified as non-detect (UB): BOD in all samples except 4M-1, nitrite in samples 8G-1 and GM-2S; TOC in samples 13G-1, EW-6, GM-2S and 22M-1; TKN in samples BLIND DUPLICATE-B, FIELD BLANK, 8G-1, 23M-1, 13G-1, 16M-1, 16G-1, GM-2S and 10G-1; phenolics in all samples except 13M-1 and 4M-1; and ammonia in samples 8G-1, 10M-1, 16G-1, BLIND DUPLICATE-B, FIELD BLANK, 16M-1, 22M-1, 13G-1, 15G-1, 23M-1, EW-6, 7M-1, 10G-1, 4G-2, GM-2S and 13M-1.
- The %R was below the QC limit in the spike for alkalinity associated with samples 4M-2, 4G-2, 4G-1, 22M-1, 13G-1, 13M-1, EW-6, 8G-1, 8M-1, 15G-1 and GM-2S; and nitrate associated with samples 10M-1, 10G-1, 16M-1, 16G-1, 23M-1, 7M-1, BLIND DUPLICATE-B, 4M-2, 4G-2, 4M-1 and 4G-1. The above general chemistry parameters were qualified as estimated (J/UJ) in associated samples.

The %R was above the QC limit in the spike for alkalinity associated with samples 4M-1 and FIELD BLANK; nitrate in samples 6M-1; and total kjeldahl nitrogen associated with samples FIELD BLANK and 8M-1. The following general chemistry parameters were qualified as estimated (J): alkalinity in sample 4M-1; nitrate in sample 6M-1; total kjeldahl nitrogen in samples FIELD BLANK and 8M-1.
- The RPDs were above the QC limit in the duplicate for alkalinity in samples 6M-1, 10M-1, 10G-1, 16M-1, 16G-1, 23M-1, 7M-1 and BLIND DUPLICATE-B; hardness in samples 6M-



1,10M-1, 10G-1, 16M-1, 16G-1, 23M-1, 7M-1, BLIND DUPLICATE-B, 4M-2, 4G-2, 4M-1, 4G-1, 22M-1, 13G-1, 13M-1, EW-6, 8G-1, 8M-1 and 15G-1; and TOC in samples 4M-2, 4G-2, 4M-1, 4G-1, 22M-1, 13G-1, 13M-1, EW-6, 8G-1, 8M-1, 15G-1, GM-2S and, FIELD BLANK. The above general chemistry parameters were qualified as estimated (J/UJ) in associated samples.

9. Sample 16G-1 was field duplicated and labeled BLIND DUPLICATE B. True color was qualified as estimated (J/UJ) based on field duplicate results in sample 16G-1 and BLIND DUPLICATE B.



DATA VALIDATION AND QUALIFICATION SUMMARY

Laboratory Numbers:7026754

Sample ID	Analyte(s)	Qualifier	Reason(s)
<u>VOCs</u>			
All samples	Acetone	UB	Detected in the laboratory blank.
6M-1, 10M-1, 10G-1, 16M-1, 16G-1, and 23M-1	Trans-1,4-dichloro-2-butene	UJ	The %R was below the QC limit in the MS
<u>Metals</u>			
BLIND DUPLICATE-B, 16G-1, 15G-1, GM-2S, 10G-1, 13G-1, 7M-1, 8G-1 and EW-6	Boron	UB	Detected in the field blank, method blank and/or preparation blank
in samples 6M-1, 4M-2, 4G-1, 16M-1, 4M-1, 7M-1, 4G-2 and GM-2S	Cadmium		
All samples except 8M-1	Mercury		
BLIND DUPLICATE-B and 16G-1	Sodium		
FIELD BLANK	Silver	JH	The %R was above the QC limit in the spike and post spike
FIELD BLANK	Iron	J	The RPD was above the QC limit in the duplicate
6M-1, 10M-1, 10G-1, 16M-1, 16G-1, 23M-1, 7M-1, BLIND DUPLICATE-, 4M-2, 4G-2, 4M-1, 4G-1, 22M-1 and 13G-1	Mercury	UJ	The RPD was above the QC limit in the duplicate
<u>General Chemistry</u>			
15G-1, 16G-1, 23M-1, 6M-1, 8G-1, 8M-1, GM-2S, 10G-1, 10M-1, 16M-1 and BLIND DUPLICATE-B	Hexavalent chromium	UJ	Analyzed outside the holding time
All samples except 4M-1	BOD	UB	Detected in the FIELD BLANK and/or laboratory blank
8G-1 and GM-2S	Nitrite		
13G-1, EW-6, GM-2S and 22M-1	TOC		
BLIND DUPLICATE-B, FIELD BLANK, 8G-1, 23M-1, 13G-1, 16M-1, 16G-1, GM-2S and 10G-1	TKN		
All samples except 13M-1 and 4M-1	Phenolics		
8G-1, 10M-1, 16G-1, BLIND DUPLICATE-B, FIELD BLANK, 16M-1, 22M-1, 13G-1, 15G-1, 23M-1, EW-6, 7M-1, 10G-1, 4G-2, GM-2S and 13M-1	Ammonia		



Sample ID	Analyte(s)	Qualifier	Reason(s)
4M-2, 4G-2, 4G-1, 22M-1, 13G-1, 13M-1, EW-6, 8G-1, 8M-1, 15G-1 and GM-2S	Alkalinity	J/UJ	The %R was below QC limits in the MS
10M-1, 10G-1, 16M-1, 16G-1, 23M-1, 7M-1, BLIND DUPLICATE-B, 4M-2, 4G-2, 4M-1 and 4G-1	Nitrate		
4M-1	Alkalinity	J	The %R was above QC limits in the spike sample
6M-1	Nitrate		
FIELD BLANK and 8M-1	Total kjeldahl nitrogen		
6M-1, 10M-1, 10G-1, 16M-1, 16G-1, 23M-1, 7M-1 and BLIND DUPLICATE-B	Alkalinity	J/UJ	The RPDs were above the QC limit in the duplicate
6M-1, 10M-1, 10G-1, 16M-1, 16G-1, 23M-1, 7M-1, BLIND DUPLICATE-B, 4M-2, 4G-2, 4M-1, 4G-1, 22M-1, 13G-1, 13M-1, EW-6, 8G-1, 8M-1 and 15G-1	Hardness		
4M-2, 4G-2, 4M-1, 4G-1, 22M-1, 13G-1, 13M-1, EW-6, 8G-1, 8M-1, 15G-1, GM-2S and, FIELD BLANK	TOC		
16G-1 and BLIND DUPLICATE B	True color	J/UJ	Based on field duplicate results

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 11/8/2017
VALIDATION PERFORMED BY SIGNATURE:	



DATA VALIDATION CHECKLIST

Project Name:	Blydenburgh Road Landfill	
Project Number:	3763-1B	
Sample Date(s):	August 14, 2017	
Sample Team:	Keith Robins	
Matrix/Number of Samples:	Water/ 5 Soil/ 0 Field Duplicates/ 0 Trip Blanks / 1 Field Blanks/ 0	
Analyzing Laboratory:	Pace Analytical., Melville, NY	
Analyses:	Volatile Organic Compounds (VOCs): by SW846 8260C Metals: TAL by SW846 Method 6010C, mercury by Method 7470A and Cyanide by USEPA 9014 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)	
Laboratory Report No:	7027179	Date:8/31/2017

ANALYTICAL DATA PACKAGE DOCUMENTATION GENERAL INFORMATION

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
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: 7027179
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Blind Sample	Analysis			
				VOC	SVOC	MET	MISC
GM-II	7027179001	8/14/2017		X		X	X
GM-1S	7027179002	8/14/2017		X		X	X
8M-2	7027179003	8/14/2017		X		X	X
GM-2D	7027179004	8/14/2017		X		X	X
GM-2I	7027179005	8/14/2017		X		X	X
TRIP BLANK	7027179006	8/14/2017		X			



ORGANIC ANALYSES VOCS

	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
3. Matrix spike (MS) %R		X	X		
4. Matrix spike duplicate (MSD) %R					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
14. Tentatively Identified Compounds (TICs)		X		X	

VOCs - volatile organic compounds

%D - percent difference

RRF - relative response factor

%R - percent recovery

%RSD - percent relative standard deviation

RPD - relative percent difference

Comments:

Performance was acceptable, with the following exceptions:

- 2A. Acetone was detected in the laboratory blank and TRIP BLANK. Acetone was qualified as non-detect (UB) in all samples if detected.
3. The %R above the QC limit in the MS for total xylene. It was not detected, and qualification of the data was not necessary.

INORGANIC ANALYSES METALS

	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Holding times		X		X	
2. Blanks					
A. Method and calibration blanks		X	X		
B. Field blanks					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

%R - percent recovery

%D - percent difference

RPD - relative percent difference

Comments:

Performance was acceptable, with the following exception:

- 2A&B. Boron, iron and manganese were detected in the field blank, method blank and/or preparation blank. Boron was qualified as non-detect (UB) in samples GM-2D, GM-2I and 8M-2.
- 8&9. The %R for silver was above the QC limit in the spike and below in post spike associated all samples. It was not detected, and qualification of the data was not necessary.
- 10. The RPD for iron was above the QC limit in the duplicate associated with all samples. Iron was qualified as estimated (J) in all samples.



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
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R		X		X	
6. Laboratory control sample %R		X			
7. Spike sample %R		X			
8. Duplicate RPD		X			
9. Field duplicates RPD					X

%R percent recovery

RPD - relative percent difference

%D - percent difference

RSD - relative standard deviation

Comments:

Performance was acceptable, with the following exception:

1. Hexavalent chromium was analyzed outside the holding time for samples 8M-2, GM-2I, GM-1I and GM-1S and nitrate in sample GM-1S. They were qualified as an estimated detection limit (UJ).
- 2A&B. Total kjeldahl nitrogen (TKN) and nitrite were detected in the FIELD BLANK and/or laboratory blank. TKN was qualified as non-detect (UB) in sample GM-1I.
7. The %R was above the QC limit in the spike for TKN associated with all samples. TKN was qualified as estimated (J) in all samples except GM-1I.



**DATA VALIDATION AND
QUALIFICATION SUMMARY**

Laboratory Numbers:7027179

Sample ID	Analyte(s)	Qualifier	Reason(s)
<u>VOCs</u>			
All samples	Acetone	UB	Detected in the laboratory blank.
<u>Metals</u>			
GM-2D, GM-2I and 8M-2	Boron	UB	Detected in the field blank, method blank and/or preparation blank
All samples	Iron	J	The RPD was above the QC limit in the duplicate
<u>General Chemistry</u>			
8M-2, GM-2I, GM-1I and GM-1S	Hexavalent chromium	UJ	Analyzed outside the holding time
GM-1S	Nitrate		
GM-1I.	Total kjeldahl nitrogen (TKN)	UB	Detected in the FIELD BLANK and/or laboratory blank
All samples except GM-1I.	TKN	J	The %R was above the QC limit in the spike

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 11/9/2017
VALIDATION PERFORMED BY SIGNATURE:	

APPENDIX G

MONITORING WELL GROUNDWATER ELEVATION MEASUREMENTS

APPENDIX G

BLYDENBURGH ROAD LANDFILL COMPLEX POST CLOSURE GROUNDWATER MONITORING PROGRAM MONITORING WELL GROUNDWATER ELEVATION MEASUREMENTS FEBRUARY 23, 2017

Well Designation	Measuring Point Elevation (feet above msl)	Depth to Water from Measuring Point (feet)	Groundwater Elevation (feet above msl)
GM-1S	151.17	113.77	37.40
GM-1I	151.19	113.85	37.34
GM-1D	151.19	Pump installed in well	---
GM-2S	160.08	122.71	37.37
GM-2I	160.65	123.28	37.37
GM-2D	160.71	123.78	36.93
GM-3S	60.51	21.95	38.56
GM-3I	60.39	21.99	38.40
GM-3D	60.03	22.27	37.76
4G-1	168.47	130.78	37.69
4G-2	170.03 ⁽¹⁾	132.50	37.53
4M-1	168.95	131.66	37.29
4M-2	169.53	134.13	35.40
5G-1	173.58	135.72	37.86
6G-1	180.17	143.01	37.16
6G-2	178.65	141.30	37.35
6G-3	179.83	142.32	37.51
6M-1	178.40	141.19	39.09
7G-1	69.33	29.58	39.75
7M-1	67.56	29.70	37.86
8G-1	133.97	97.06	36.91
8M-1	135.21	98.42	36.79
8M-2	135.11	98.21	36.90
9G-1	90.83	52.55	38.28
9M-1	90.59	52.43	38.16
10G-1	88.52	52.09	36.43
10M-1	88.84	52.41	36.43
11G-1	168.90	131.45	37.45
11G-2	169.31	131.86	37.45
11M-1	168.32	130.77	37.55

APPENDIX G (Continued)

**BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
MONITORING WELL GROUNDWATER ELEVATION MEASUREMENTS
FEBRUARY 23, 2017**

Well Designation	Measuring Point Elevation (feet above msl)	Depth to Water from Measuring Point (feet)	Groundwater Elevation (feet above msl)
12G-1	173.61	138.80	34.81
12M-1	177.66	140.22	37.44
13G-1	110.49 ⁽¹⁾	73.74	36.75
13M-1	109.92 ⁽¹⁾	73.21	36.71
14G-1A	161.73	124.25	37.48
14G-1	162.82	125.24	37.58
14G-2	162.36	124.82	37.54
14M-1	161.98	124.81	37.17
15G-1	183.05	145.70	37.35
15M-1	183.47	146.15	37.32
16G-1	76.92	41.13	35.79
16M-1	76.90	41.08	35.82
18G-1	168.62	131.01	37.61
18G-2	168.78	131.14	37.64
22M-1	61.04	23.06	37.98
23M-1	76.81	39.10	37.71
MW-56	97.84	58.83	39.01
MW-57	84.05	44.71	39.34
MW-58	76.68	Dry	---
MW-59	87.58	48.29	39.29
MW-60	95.44	57.87	37.57
MW-61	107.01	69.34	37.67
MW-62	114.23	Dry	---
MW-63	126.26	88.48	37.78
MW-D12	162.39	125.50	36.89
19GR-1*	165.42	129.32	36.10
20G-1*	165.31	127.85	37.46
21G-1*	172.83	135.45	37.38
24G-1*	176.91	139.05	37.86
24G-2*	176.44	138.68	37.76
24G-3*	176.13	138.41	37.72
25G-1*	159.91 ⁽²⁾	122.44	37.47
25G-2*	158.71	121.16	37.55
26G-1*	165.10	128.07	37.03

APPENDIX G (Continued)

**BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
MONITORING WELL GROUNDWATER ELEVATION MEASUREMENTS
FEBRUARY 23, 2017**

Well Designation	Measuring Point Elevation (feet above msl)	Depth to Water from Measuring Point (feet)	Groundwater Elevation (feet above msl)
26G-2*	165.57	128.26	37.31
26G-3*	165.43	127.91	37.52
27G-1*	166.58	127.93	36.65
27G-2*	166.52	129.11	37.41
27G-3*	166.64	129.00	37.44
28G-1*	201.99	164.10	37.89
28G-2*	201.31	163.44	37.89
28G-3*	200.16	162.33	37.83

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.

APPENDIX G (Continued)

**BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
MONITORING WELL GROUNDWATER ELEVATION MEASUREMENTS
AUGUST 1, 2017**

Well Designation	Measuring Point Elevation (feet above msl)	Depth to Water from Measuring Point (feet)	Groundwater Elevation (feet above msl)
GM-1S	151.17	113.31	37.86
GM-1I	151.19	113.42	37.77
GM-1D	151.19	Pump installed in well	---
GM-2S	160.08	122.21	37.87
GM-2I	160.65	122.80	37.85
GM-2D	160.71	123.35	37.36
GM-3S	60.51	21.31	39.20
GM-3I	60.39	21.70	38.69
GM-3D	60.03	22.20	37.83
4G-1	168.47	130.31	38.16
4G-2	170.03 ⁽¹⁾	132.03	38.16
4M-1	168.95	131.11	37.84
4M-2	169.53	133.90	35.63
5G-1	173.58	135.18	38.40
6G-1	180.17	142.49	37.68
6G-2	178.65	140.79	37.86
6G-3	179.83	141.85	37.98
6M-1	178.40	141.16	37.24
7G-1	69.33	29.81	39.52
7M-1	67.56	29.41	38.15
8G-1	133.97	96.64	37.33
8M-1	135.21	97.84	37.37
8M-2	135.11	97.79	37.14
9G-1	90.83	52.09	38.74
9M-1	90.59	51.97	38.62
10G-1	88.52	51.79	36.73
10M-1	88.84	52.13	36.71
11G-1	168.90	131.01	37.89
11G-2	169.31	131.38	37.93
11M-1	168.32	130.30	38.02
12G-1	173.61	138.05	35.56
12M-1	177.66	139.78	37.88
13G-1	110.49 ⁽¹⁾	73.24	37.25

APPENDIX G (Continued)

**BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
MONITORING WELL GROUNDWATER ELEVATION MEASUREMENTS
AUGUST 1, 2017**

Well Designation	Measuring Point Elevation (feet above msl)	Depth to Water from Measuring Point (feet)	Groundwater Elevation (feet above msl)
13M-1	109.92 ⁽¹⁾	72.78	37.14
14G-1A	161.73	123.77	37.96
14G-1	162.82	124.89	37.93
14G-2	162.36	124.42	37.94
14M-1	161.98	124.38	37.60
15G-1	183.05	145.34	37.71
15M-1	183.47	145.78	37.69
16G-1	76.92	40.90	36.02
16M-1	76.90	40.88	36.02
18G-1	168.62	130.51	38.11
18G-2	168.78	130.65	38.13
22M-1	61.04	22.91	38.13
23M-1	76.81	38.76	38.05
MW-56	97.84	58.75	39.09
MW-57	84.05	44.91	39.14
MW-58	76.68	37.43	39.25
MW-59	87.58	48.40	39.18
MW-60	95.44	57.35	38.09
MW-61	107.01	68.98	38.03
MW-62	114.23	Dry	--
MW-63	126.26	88.07	38.19
MW-D12	162.39	125.04	37.35
19GR-1*	165.42	128.83	36.59
20G-1*	165.31	127.38	37.93
21G-1*	172.83	134.94	37.89
24G-1*	176.91	138.49	38.42
24G-2*	176.44	138.01	38.43
24G-3*	176.13	137.88	38.25
25G-1*	159.91 ⁽²⁾	121.95	37.96
25G-2*	158.71	120.65	38.06
26G-1*	165.10	127.58	37.52
26G-2*	165.57	127.72	37.85
26G-3*	165.43	127.43	38.00
27G-1*	166.58	129.44	37.14

APPENDIX G (Continued)

**BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
MONITORING WELL GROUNDWATER ELEVATION MEASUREMENTS
AUGUST 1, 2017**

Well Designation	Measuring Point Elevation (feet above msl)	Depth to Water from Measuring Point (feet)	Groundwater Elevation (feet above msl)
27G-2*	166.52	128.61	37.91
27G-3*	166.64	128.70	37.94
28G-1*	201.99	163.59	38.40
28G-2*	201.31	162.19	38.40
28G-3*	200.16	161.84	38.32

Notes:

---: Groundwater elevation not calculated.

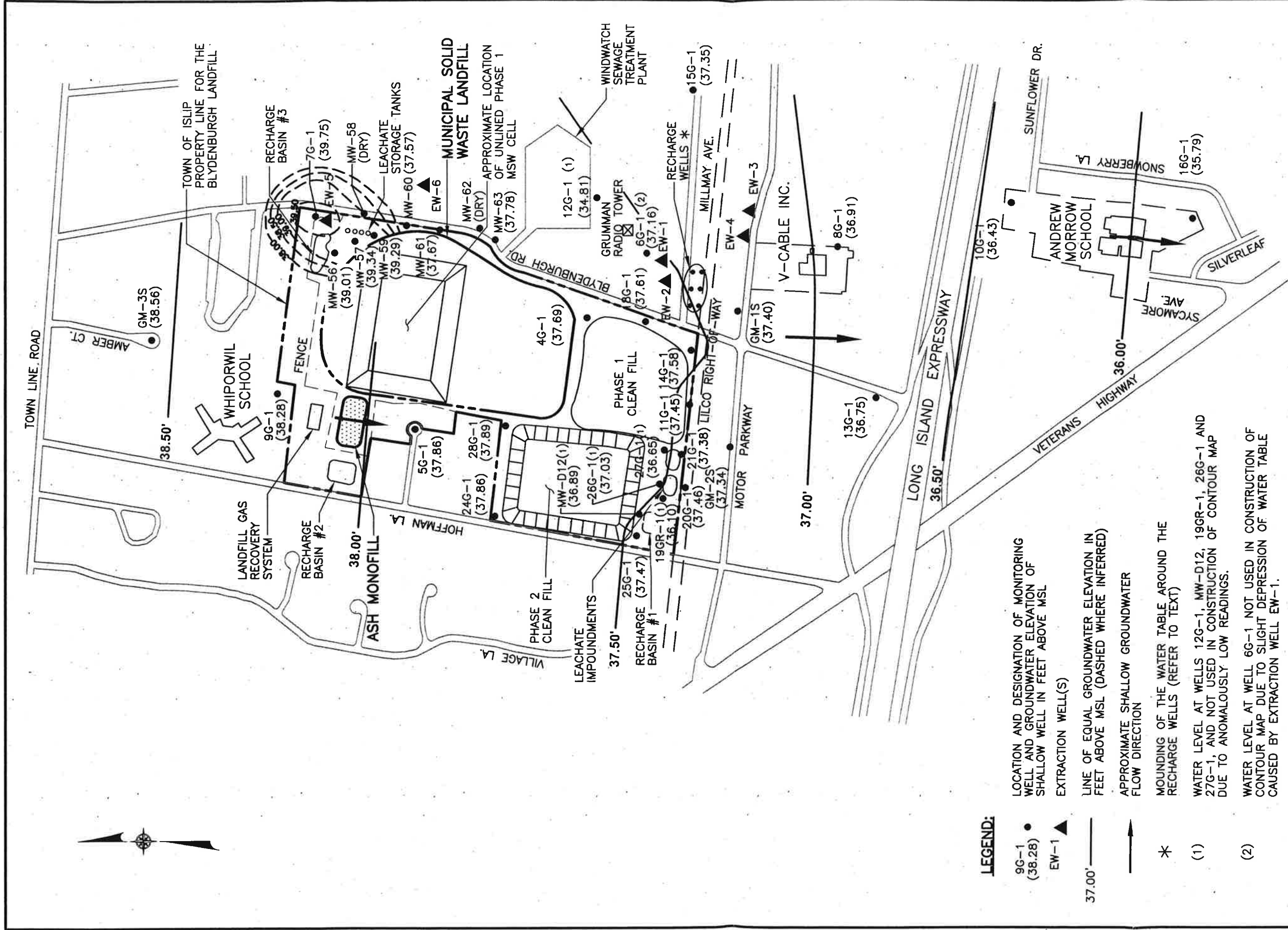
* Additional water level measurements collected by D&B as part of the Cleanfill Landfill Groundwater Monitoring Program.

⁽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.

APPENDIX H

WATER TABLE CONTOUR AND POTENTIOMETRIC SURFACE CONTOUR MAPS (-83 to -167 feet msl)



NOTE: CONTOUR INTERVAL EQUALS 0.50 FT.

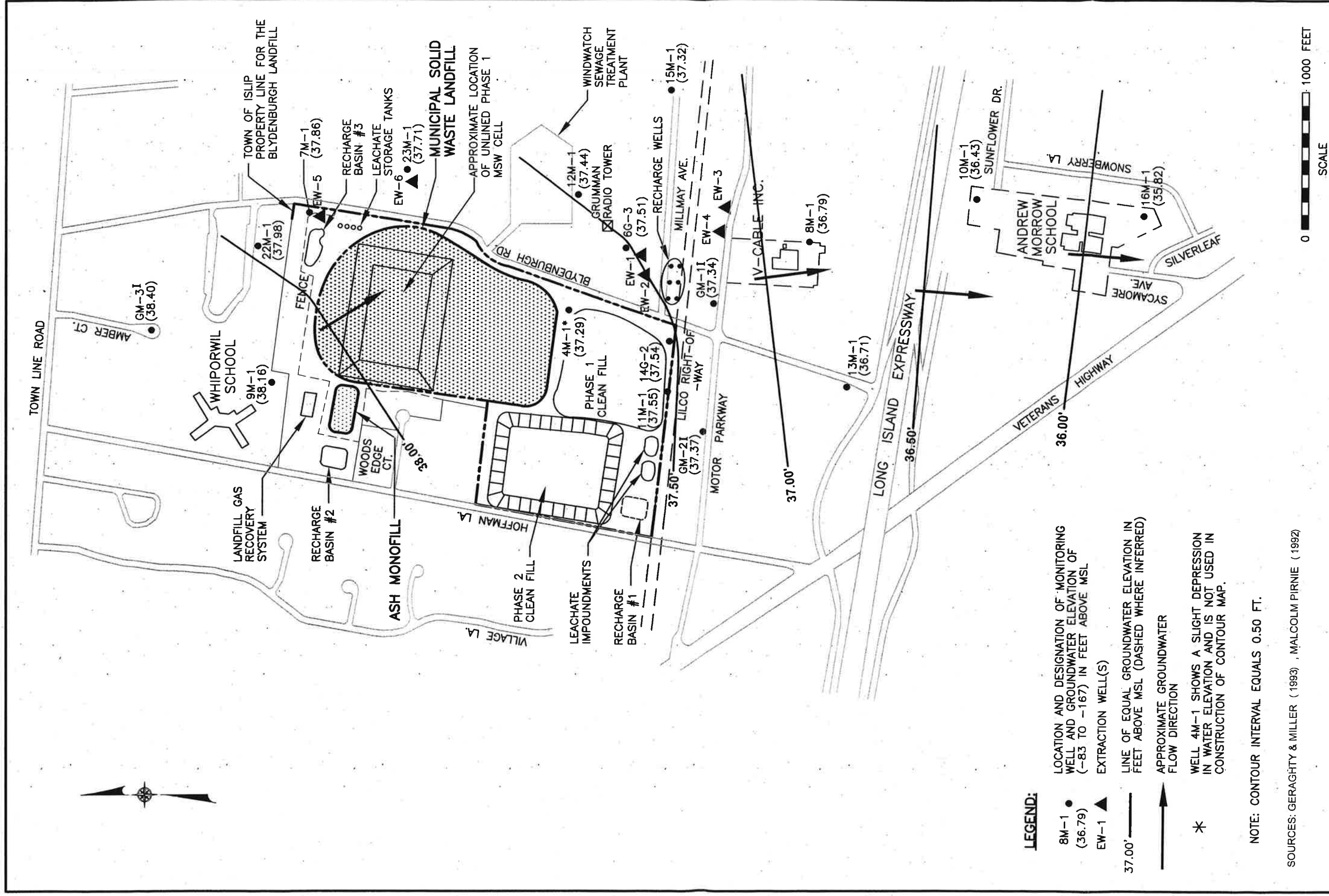
SOURCES: GERAGHTY & MILLER (1993), MALCOLM PIRNIE (1992)

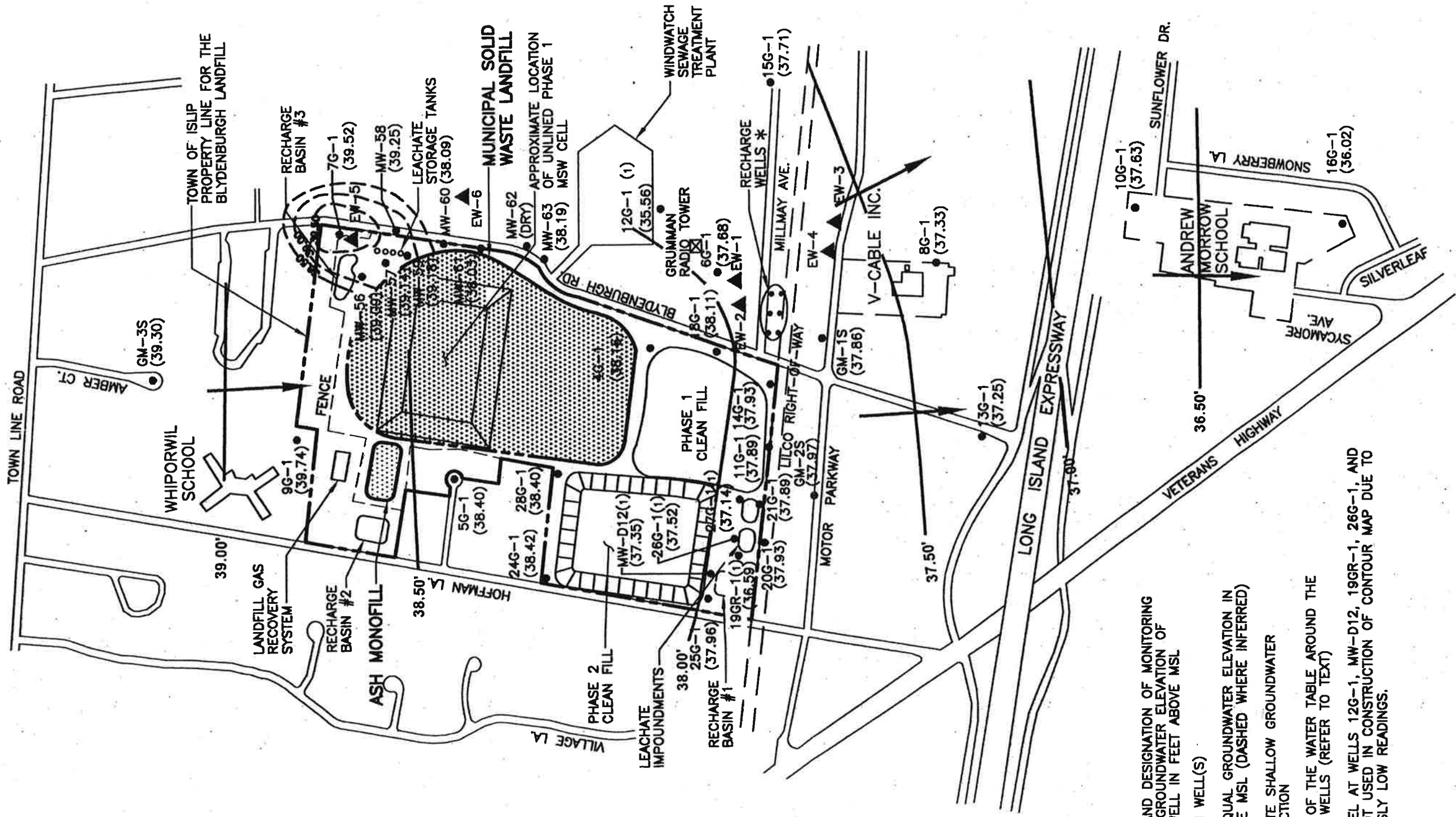
**D&B ENGINEERS
AND
ARCHITECTS, P.C.**

ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH ROAD LANDFILL COMPLEX

**WATER TABLE CONTOUR MAP
FEBRUARY 23, 2017**

FIGURE 6-1





LEGEND:

- 9G-1 (38.74) •
- EW-1 ▲
- 37.00' —
-
- *
- (1)

LOCATION AND DESIGNATION OF MONITORING WELL AND GROUNDWATER ELEVATION OF SHALLOW WELL IN FEET ABOVE MSL

EXTRACTION WELL(S)

LINE OF EQUAL GROUNDWATER ELEVATION IN FEET ABOVE MSL (DASHED WHERE INFERRED)

APPROXIMATE SHALLOW GROUNDWATER FLOW DIRECTION

BOUNDING OF THE WATER TABLE AROUND THE RECHARGE WELLS (REFER TO TEXT)

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.

NOTE: CONTOUR INTERVAL EQUALS 0.50 FT.

0 1000 FEET
SCALE

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

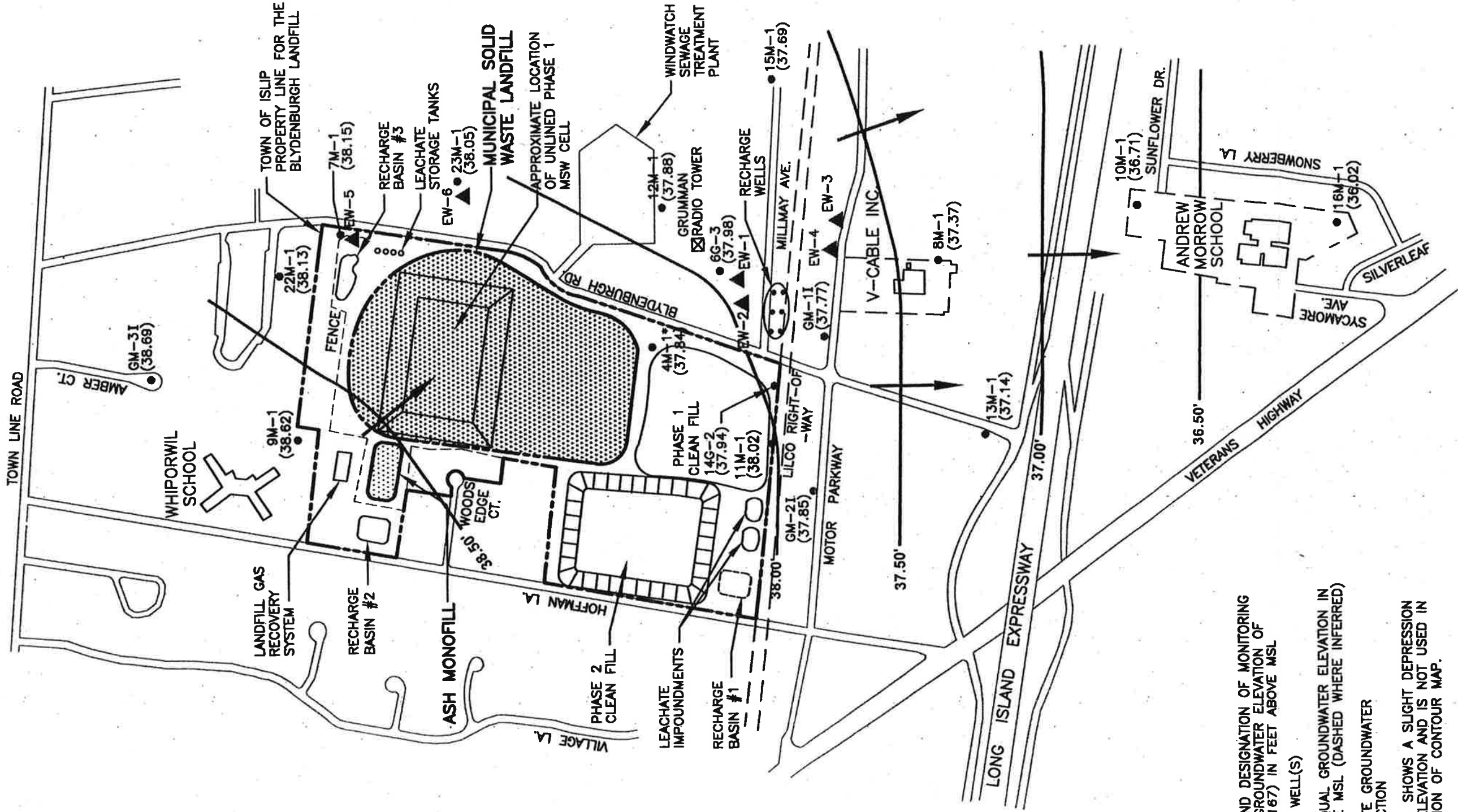


ISLIP RESOURCE RECOVERY AGENCY

BLYDENBURGH ROAD LANDFILL COMPLEX

WATER TABLE CONTOUR MAP

AUGUST 1, 2017



LEGEND:

- 8M-1 • (37.37) LOCATION AND DESIGNATION OF MONITORING WELL AND GROUNDWATER ELEVATION OF (-83 TO -167) IN FEET ABOVE MSL
- EW-1 ▲ (37.37) EXTRACTION WELL(S)
- 37.00' — 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)



**D&B ENGINEERS
AND
ARCHITECTS, P.C.**

POTENTIOMETRIC SURFACE CONTOUR MAP
(-83 TO -167 FEET MSL)
AUGUST 1, 2017

ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH ROAD LANDFILL COMPLEX

APPENDIX I

HISTORICAL RECHARGE WELL WATER LEVEL ELEVATION MEASUREMENTS

APPENDIX I

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.

APPENDIX I (Continued)

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)					
	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⁾
Recharge Well 1	84.42	82.42	71.42	76.42	88.42	68.42
Recharge Well 2	101.88	102.88	103.88	104.88	114.88	122.48
Recharge Well 3	112.39	122.39	70.39	98.39	95.39	74.39
Recharge Well 4	74.86	81.86	76.86	75.86	65.86	75.86
Recharge Well 5	48.08	57.08	46.08	61.08	53.08	48.08
Recharge Well 6	77.16	82.16	71.16	77.16	64.16	69.16

Well Designation	Water Level Elevation (feet above mean sea level)					
	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⁾
Recharge Well 1	74.42	68.42	84.42	84.42	96.42	116.42
Recharge Well 2	125.88	112.88	120.88	122.88	137.88	77.88
Recharge Well 3	54.39	74.39	80.39	90.39	98.39	60.39
Recharge Well 4	74.86	64.86	58.86	54.86	74.86	94.86
Recharge Well 5	48.08	53.08	51.08	53.08	51.08	50.08
Recharge Well 6	50.16	79.16	95.16	104.16	97.16	169.16

Well Designation	Water Level Elevation (feet above mean sea level)					
	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⁾
Recharge Well 1	75.42	84.42	86.42	96.42	78.42	82.42
Recharge Well 2	132.88	94.88	108.88	114.88	74.88	90.88
Recharge Well 3	49.39	60.39	60.39	53.39	65.39	60.39
Recharge Well 4	109.86	76.86	60.86	82.86	64.86	70.86
Recharge Well 5	51.08	53.08	71.08	51.08	61.08	56.08
Recharge Well 6	139.16	151.16	129.16	129.16	109.16	135.16

⁽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.

APPENDIX I (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)							
	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⁾
Well Designation							
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

Well Designation	Water Level Elevation (feet above mean sea level)		
	Third Quarter August 2016 ⁽¹⁾	First Quarter February 2017 ⁽¹⁾	Third Quarter August 2017 ⁽¹⁾
Recharge Well 1	71.42	78.42	74.42
Recharge Well 2	102.88	102.88	142.86
Recharge Well 3	65.39	43.39	62.39
Recharge Well 4	76.86	46.86	52.08
Recharge Well 5	65.08	53.08	51.08
Recharge Well 6	129.16	169.16	129.16

⁽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.