ISLIP
RESOURCE
RECOVERY
AGENCY

Blydenburgh Road Landfill Complex
Town of Islip, New York

2016 Periodic Review Report

May 2017

Prepared by:

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June 9, 2017

Cynthia Whitfield, P.E., Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, 11th Floor
625 Broadway
Albany, NY 12233-7015

Re: Blydenburgh Road Landfill Complex
2016 Periodic Review Report
D&B No. 3763-05

Dear Ms. Whitfield:

Enclosed please find a copy of the 2016 Periodic Review Report for the Blydenburgh Road Landfill Complex. This document is being submitted on behalf of the Islip Resource Recovery Agency (IRRA). In addition, this report is provided in electronic format on the enclosed compact disc.

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

Very truly yours,

Thomas P. Fox, P.G.
Vice President

TPF/KSRt/nc
Enclosures
c.c.: A. Varrichio (IRRA)
♦3763\TPF17LTR-02(R01)

2016 PERIODIC REVIEW REPORT

TOWN OF ISLIP
BLYDENBURGH ROAD LANDFILL COMPLEX
HAUPPAUGE, NEW YORK

Prepared for:

TOWN OF ISLIP
ISLIP RESOURCE RECOVERY AGENCY
ISLIP, NEW YORK

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WOODBURY, NEW YORK

MAY 2017

2016 PERIODIC REVIEW REPORT
BLYDENBURGH ROAD LANDFILL COMPLEX
HAUPPAUGE, NEW YORK

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1.0 INTRODUCTION

The purpose of this Periodic Review Report (PRR) is to document the implementation of and compliance with the Site Management Plan (SMP) requirements for the Blydenburgh Road Landfill Complex (the Site). The reporting period for this PRR is the calendar year 2016. However, portions of the report incorporate pertinent historical project background information and monitoring data, as appropriate.

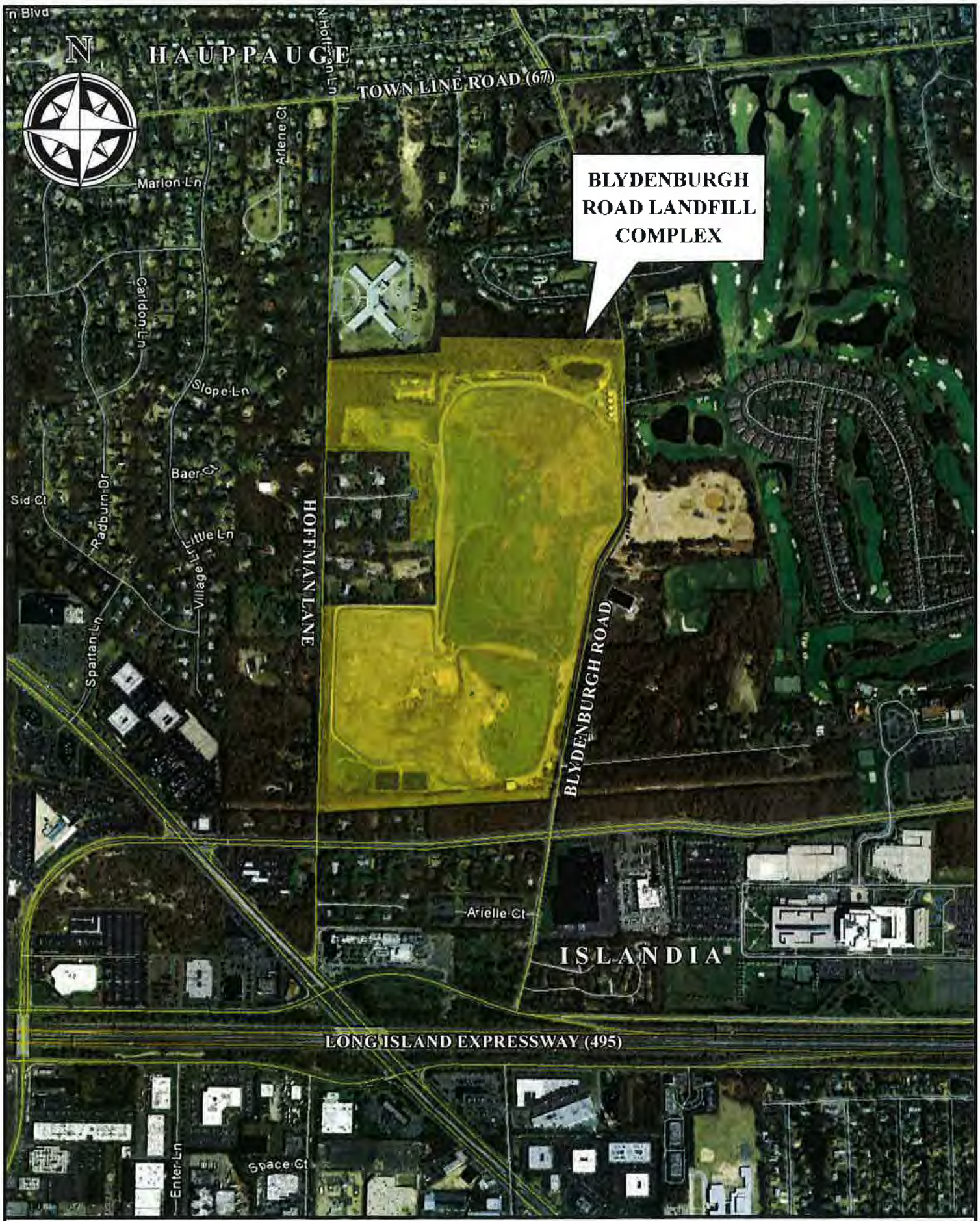
The objectives of the PRR process include:

- Presenting background information;
- Identifying the remedial goals established for the Site;
- Evaluating the remedy performance, effectiveness and protectiveness;
- Monitoring Plan Compliance;
- Operation and Maintenance (O&M) Plan Compliance;
- Institutional Controls and Engineering Control (IC/EC) Compliance; and
- Presenting conclusions and recommendations regarding the components of the monitoring plan, with respect to achieving the remedial goals established for the Site.

Site Description

The Site (also known as the Islip Municipal Sanitary Landfill) is located in Hauppauge, Town of Islip, Suffolk County, New York (see **Figure 1-1**). The landfill complex consists of:

- An approximate, 52-acre, capped and closed Municipal Solid Waste (MSW) landfill;
- An approximate 2-acre, capped and closed ash Monofill; and
- An approximate 30-acre, lined operational Cleanfill landfill.



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ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH ROAD LANDFILL COMPLEX

LOCATION MAP

Source: Googlearth.com
Scale: Not to Scale

FIGURE 1-1

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

The Site also includes buffer zones, a leachate collection system, leachate storage tanks, surface water management, a landfill gas collection system, an office and maintenance buildings, roadways and a groundwater treatment system.

The Site is still an active site and a portion of the landfill complex is used as a Cleanfill disposal site, as noted above. The Town of Islip does not currently have any future plans for alternative uses for the Site. Presently, activities at the Site include ongoing maintenance of the landfill cover/cap and operation of the groundwater treatment facility, the gas control system and the leachate collection system.

Site History

The Town of Islip began landfilling operations at the Site in 1963. Prior to 1963, sand mining was carried out on the property. In 1978, 60-70 55-gallon drums of dry cleaning waste containing trichloroethene (TCE) were reportedly buried approximately 140 feet below the surface of the landfill and approximately 40 feet above the water table. In the late 1970's early 1980's, it became apparent that contamination, in particular landfill gas, was migrating from the Site below the neighboring residential properties. In 1980, the Whiporwil School was closed due to suspected vinyl chloride contamination in the air. Subsequent air samples did not confirm that this contamination was present and the school was re-opened as a daycare center. In 1983, an active landfill gas collection system was installed to control migration of landfill gas beyond the Site boundary and within on-site structures.

Municipal solid waste was accepted at the Site until December 18, 1990, when landfilling of municipal waste ceased in accordance with the requirements of the Long Island Landfill Law. Municipal waste was land filled on approximately 55.4 acres of the MSW Landfill. In addition, a small portion of the MSW Landfill was also utilized as a combustible ash Monofill and ash processing area.

The property is listed as an inactive hazardous waste disposal site in the Registry of Inactive Hazardous Waste Disposal Sites in the State of New York (NYSDEC Site No. 152002).

In August 1987, the Town of Islip and the New York State Department of Environmental Conservation (NYSDEC) entered into an Order on Consent to develop and implement a Remedial Investigation (RI) and a Feasibility Study (FS). In March 1989, the Site was included on the Federal National Priorities List under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). In December 1990, the Town of Islip and the NYSDEC entered into a Consent Order to perform remedial activities at the Site. The RI and FS for the Site were completed in June 1992. The Record of Decision (ROD) was issued September 30, 1992, stating the components of the selected remedy.

The three major components of the selected remedy are as follows:

1. Capping and closure of the MSW landfill in accordance with 6 NYCRR Part 360 Solid Waste Management Facilities;
2. Construction of a groundwater extraction and treatment system; and
3. Implementation of institutional controls including deed restrictions for the Site and restrictions on the use or installation of wells within the groundwater contaminant plume.

Effectiveness of the Remedial Program

Based on an evaluation of the Remedial Action Objectives (RAOs) presented in the ROD for the Site and the information presented in support of the IC/EC Plan, Monitoring Plan and O&M Plan, the components of the remedy continue to meet the following RAOs:

1. Minimize the infiltration of rainfall or snow melt into the landfill, thus reducing the quantity of water percolating through the landfill materials and leaching out contaminants;
2. Prevent inhalation of vapors from the landfill; and
3. Reduce the movement and toxicity of the contaminated landfill leachate into groundwater, and subsequent downgradient migration of contaminants.

Based on the third quarter 2016 detected concentrations of total volatile organic compounds (TVOCs) in temporary extraction well (GM-1D) at 41 micrograms per liter (ug/l) and in monitoring wells 14M-1 and 11G-2 at 53 ug/l and 65 ug/l, respectively, as well as, ten downgradient monitoring wells having detected concentrations of individual VOCs above applicable NYSDEC Class GA Groundwater Standards/Guidance Values, the components of the remedy are still actively progressing toward achieving the following RAOs numbers:

4. Reduce the movement and toxicity of contaminants in the groundwater; and
5. Restore the aquifer to drinking water quality.

Compliance

Based on a review of the current activities completed at the Site in support of the IC/EC Plan, Monitoring Plan and O&M Plan, all components of the respective plans are currently being met and do not require any changes. However, in order to address the requirements of RAOs Nos. 4 and 5, as noted above, D&B on behalf of the Islip Resource Recovery Agency (IRRA), submitted a Corrective Measures Work Plan (CMWP), dated February 9, 2011 to the NYSDEC. A copy of the CMWP is shown as an attachment to the IC/EC Form in **Appendix A**. In keeping with the goals of the ROD, the CMWP proposed the following steps to improve upon the database of information relative to the groundwater quality associated with the site:

- A pilot study has commenced to determine the feasibility of installing an additional extraction well within the vicinity of monitoring well GM-1D, in order to remediate the groundwater which has exhibited greater than 50 ppb of VOCs within that area. In October 2013, the IRRA modified existing monitoring well GM-1D as a temporary extraction well. Specific details regarding the well conversion for GM-1D is presented in the CMWP.
- The Post Closure Groundwater Monitoring Program has been revised (commencing in the third quarter of 2011), to include the groundwater parameters identified in 6 NYCRR Part 360. On a semiannual basis, groundwater samples are collected from monitoring wells and extraction wells, which are analyzed for Part 360 Baseline Parameters (VOCs, inorganic parameters and leachate indicators). In addition, at the request of the NYSDEC, commencing with the First Quarter 2015 sampling event, both Freon 21 and Freon 22 were added for analysis to the Part 360 VOC list. The revised data base, which includes the addition of inorganic parameters, leachate

indicators, Freon 21 and Freon 22, will be utilized to further monitor the groundwater quality at the Site and develop informed decisions, if warranted, regarding the need for revisions to the existing groundwater remediation system and/or the scope of the groundwater program.

Recommendation

It is recommended that the frequency of the submittal of PRRs be submitted to the NYSDEC on an annual basis. The frequency of future PRR's will be determined, based on future site conditions and compliance, by the NYSDEC.

2.0 SITE OVERVIEW

The Site is located on a 109-acre parcel, located in Hauppauge, Town of Islip, Suffolk County, New York. The Site has been developed in several phases that have been limited to specific areas of the property. The landfill property is completely surrounded by a fence and the Site is under video surveillance. The Site is bordered to the east by Blydenburgh Road; to the south by an electric transmission line and right-of-way, and 200 feet beyond the right-of-way is Motor Parkway; to the west by Hoffman Lane and Woods Edge Court; and to the north by the Whiporwil Preschool and the Town House Village North Apartments. Most of the landfill property, with the exception of the border on Blydenburgh Road, has a buffer zone or setback that consists of trees and underbrush.

Surrounding Area

The landfill property and most of the surrounding areas immediately adjacent to the landfill are residentially zoned. The closest residence to the Site is on Blydenburgh Road, approximately 80 feet from the east of the landfill property boundary. The nearest residence to the western boundary of the landfill property is on Woods Edge Court, which is approximately 150 feet from the landfill. Light industry is located southeast of the landfill on Motor Parkway, east of Blydenburgh Road. A hotel (which operates its own waste water treatment facility) and a golf course are located to the east of the landfill. The Whiporwil Preschool is located to the north of the landfill and the Andrew Morrow School is located approximately one-half mile southeast of the southern boundary of the landfill.

Significant Features

The topography in the area of the Site itself is hilly due to the presence of the Ronkonkoma Terminal Moraine. The top of the landfill is approximately 250 feet above mean sea level (msl) which is the highest elevation in the area. The elevation drops off rapidly in a northerly direction to approximately 50 to 60 feet above msl at Town Line Road. The land

surface elevation toward the southern end of the landfill drops off more gradually than to the north. The Andrew Morrow School is at an elevation of approximately 90 feet above msl.

Four major unconsolidated units underlie the landfill. The unconsolidated deposits, from land surface downward, include the Glacial Formation, the Magothy Formation, and the Clay and Lloyd Sand members of the Raritan Formation. The uppermost hydrogeologic formations, i.e., the Upper Glacial and Magothy aquifers, are of primary interest as they are hydraulically interconnected and are the sole source (NYSDEC-Class II a) aquifers, used as a source of drinking water, in this region of Long Island. The Site is located in the deep-flow recharge zone of the Long Island aquifer system and vertical hydraulic gradients in the study area are primarily downward. The prevailing horizontal groundwater flow direction is to the south-southeast. The depth to the water table is typically greater than 100 feet below ground surface (bgs) in the immediate vicinity of the landfill.

Four public supply well fields currently owned and maintained by the Suffolk County Water Authority (SCWA), are located within a 1-mile radius of the Site.

The Connetquot River and the North Branch of the Nissequogue River are the two most significant perennial surface-water bodies closest to the Blydenburgh Road Landfill. The Connetquot River is located approximately 2 miles southeast of the Site (USGS, 1980). The nearest perennial surface-water body is a tributary to the northeast branch of the Nissequogue River and is located approximately 0.8 miles northeast of the Site (USGS, 1980). The Nissequogue River discharges into the Smithtown Bay.

Nature and Extent of Contamination prior to Site Remediation

In the late 1970's to early 1980's, methane gas was found to be migrating from the landfill beneath the neighboring residential properties. In 1979, two houses adjacent to the landfill were purchased by the Town of Islip in order to protect the residents after high concentrations of methane gas were detected in their basements. The source of the methane was

believed to be the landfill. In 1983, an active gas collection system was installed to control migration of flammable or explosive gases (methane) beyond the Site boundary.

In 1980, the Suffolk County Department of Health Services (SCDHS) completed a survey of private wells in the vicinity of the landfill, which indicated that VOCs and inorganics, such as iron and zinc, were present in well water samples at concentrations exceeding New York State Drinking Water Standards. The highest volatile organic concentration detected was 124 micrograms per liter (ug/l) of tetrachloroethene. Based on this survey, the SCDHS recommended that a public water system be installed to replace the affected private wells. In 1981, the Town of Islip connected these residents to a permanent public water supply to prevent exposure to contaminated groundwater in the private wells.

In addition, in 1980, the USEPA collected groundwater monitoring samples from the landfill property and the groundwater results showed vinyl chloride (VC) ranging in concentrations from 40 ug/l to 90 ug/l. Also methane levels were detected at the landfill perimeter. The USEPA recommended that the landfill be closed, a permanent cap be installed, a methane venting system be constructed and additional groundwater monitoring wells be installed.

In 1981, Velzy Associates installed a permanent groundwater monitoring well network at the landfill. Based on samples collected from the monitoring wells, Velzy concluded that groundwater beneath the landfill itself had been impacted by leachate, but the affected groundwater had not migrated significantly downgradient from the landfill property.

In 1986, Geraghty and Miller (G&M) performed a groundwater investigation, which identified a plume of leachate-affected groundwater extending south-southeast of the landfill for 1,000 feet or more.

In 1991, G&M completed a Remedial Investigation (RI) at the Blydenburgh Road Landfill. The RI identified plumes of contaminated groundwater in the Upper Glacial and Magothy aquifers downgradient of the property. The constituents of the contaminated

groundwater were identified as VOCs such as tetrachloroethene (PCE), trichloroethene (TCE), dichloroethene (DCE), 1,1,1- trichloroethane (1,1,1-TCA) and VC. The highest total VOC level identified was 343 ug/l in a cluster of monitoring wells (Site 6) approximately 700 feet east of the landfill's eastern boundary. High levels of VOCs were also found in the deep monitoring well located outside the northeast corner of the landfill (Site 7). In addition, elevated levels of iron, manganese and other inorganic parameters were detected in the monitoring wells. Landfill gas samples collected from existing vents along Blydenburgh Road also showed elevated levels of benzene, VC, PCE and other VOCs.

In 1996, Dvirka and Bartilucci Consulting Engineers (D&B) conducted baseline groundwater sampling at the landfill. The sampling consisted of two rounds (December 1995/January 1996, and April/May 1996). The purpose of the baseline sampling was to establish existing groundwater conditions prior to the operation of the groundwater treatment system at the landfill complex, in particular for the contaminants of concern requiring remediation (VOCs, iron and manganese). Based upon the results of the groundwater sampling conducted during the baseline sampling events, it appeared that the extent of the groundwater contamination, as measured by VOCs, had increased since the results of the RI were presented in 1991. Although levels of total VOCs, greater than 50 ug/l, were detected in the shallow monitoring wells just downgradient of the landfill, the levels appeared to decrease significantly in the zone just south of Motor Parkway. Levels of VOCs greater than 5 ug/l had not migrated past Site 8 (approximately 2,000 feet downgradient of the landfill). However, elevated levels of inorganic constituents such as iron and manganese, as compared to upgradient wells, were detected in the shallow Upper Glacial wells as far downgradient as Site 16.

In addition, mid Upper Glacial Aquifer monitoring wells screened (-35 to -75 msl) located just downgradient of the landfill, indicated elevated levels of VOCs. Contamination detected in the deep Upper Glacial/shallow Magothy wells appeared to be more widespread than the Shallow Upper Glacial water table wells. Contamination was detected as far downgradient as Site 16. The VOC plume in this zone was found to be extending from the Site in a south-southeasterly direction. Based on the 1996 results, groundwater contamination was not detected in the deep Magothy aquifer downgradient from the landfill.

Summary of Remedy

Based on the findings of the RI and as detailed in **Section 1.0**, the USEPA issued a ROD on September 30, 1992, for the remediation of the Blydenburgh Road Landfill in accordance with the site-specific RAOs to protect human health and the environment. The RAOs, as defined in the ROD, included the following:

1. Minimize the infiltration of rainfall or snow melt into the landfill, thus reducing the quantity of water percolating through the landfill materials and leaching out contaminants;
2. Prevent inhalation of vapors from the landfill;
3. Reduce the movement and toxicity of the contaminated landfill leachate into groundwater, and subsequent downgradient migration of contaminants;
4. Reduce the movement and toxicity of contaminants in the groundwater; and
5. Restore the aquifer to drinking water quality.

In order to meet the site-specific RAOs, the USEPA selected Alternate 4B – Cap, Pump and Treat Groundwater Contaminated Above 50 ppb Total VOC's (Treatment by Chemical Precipitation/Air Stripping), which consist of the following components:

1. Installation of a modified geosynthetic membrane cap on the landfill in accordance with the closure requirements for New York State solid waste landfills contained in 6 NYCRR Part 360. The areal extent of the cap is approximately 52 acres. The modified geosynthetic membrane cap includes layers of fill material, drainage layers, an impermeable membrane, and a gas venting system that utilizes Rolite-treated incinerator ash;
2. Construction of a storm water system that will direct and control runoff from the Site to on-site recharge basins;
3. Development and implementation of an on-site groundwater extraction and treatment system. Groundwater contaminated with approximately 50 parts per billion (ppb) of total VOCs or more will be extracted, treated via aeration, and discharged to an on-site recharge basin. Groundwater with a concentration of total VOCs below 50 ppb will be reduced to drinking water standards through natural attenuation;

4. Implementation of a groundwater-monitoring system to monitor the groundwater contamination plume and to evaluate the effectiveness of the selected remedy;

5. Performance of a treatability study to demonstrate that aeration is effective in precipitating inorganic compounds from the groundwater. If the study demonstrates that this technology is not effective in removing inorganic compounds, then a contingency remedy which utilizes chemical precipitation and air stripping to treat groundwater will be implemented. The contingency remedy is identical to the selected remedy in all other aspects;

6. Determination of whether carbon adsorption will be required as a polishing treatment step to ensure compliance with State Pollutant Discharge Elimination System (SPDES) discharge standards during treatability testing;

7. Evaluation of the groundwater treatment system to determine whether an air pollution control device will be necessary to comply with air emissions requirements;

8. Collection of ambient air samples to determine whether additional landfill gas control measures will be necessary. If ambient air samples indicate that landfill gas emissions from the three existing flares are unacceptable and operation of the current flare system cannot be modified to reduce VOC emissions while maintaining perimeter subsurface control of explosive gas, supplemental fuel will be provided to sustain combustion in the flares;

9. Completion and evaluation of the supplemental groundwater investigation which was initiated in June 1992, to determine whether the groundwater contamination detected at well cluster 7 (well 7M-1) is site-related. If the contamination in well 7M-1 is attributable to the Site, the design of the proposed remedy will be modified to address such contamination;

10. Development of an air monitoring system to ensure compliance with ambient air standards; and

11. Recommendations that deed and well restrictions be imposed to prevent the installation of drinking water wells in impacted areas.

In accordance with Component No. 1 of the selected remedy, the construction of the 6 NYCRR Part 360 cap over the municipal solid waste (MSW) landfill and the 2-acre Ash Monofill, was completed in November 1993.

In accordance with Component No. 2 of the selected remedy, the landfill cap construction also included an integral storm water management system to control surface water runoff from the cap, as well as a landfill gas management system to collect landfill gases from beneath the

cap and landfill perimeter to prevent them from migrating off-site. Improvements to the landfill gas management systems have included provisions for landfill gas condensate management and the addition of select extraction wells to provide a more comprehensive collection system.

In accordance with Component No. 3 of the selected remedy, the construction of the groundwater extraction and treatment system was completed in September 1996. The treatment system was constructed in accordance with the February 1994 Treatment Facility Design Report, with one exception: the treatment system was modified to discharge effluent groundwater to six recharge wells located at the corner of Blydenburgh Road and Millmay Avenue, in lieu of an on-site recharge basin.

In accordance with Component No. 4 of the selected remedy, monitoring and sampling of the groundwater monitoring well network was initiated after the construction of the groundwater extraction and treatment system in September 1996. Groundwater monitoring and sampling is completed in accordance with the NYSDEC-approved Sampling and Analysis Plan, dated October 1996, revised January 2011.

In accordance with Component Nos. 5 and 6 of the selected remedy, a treatability study was completed as a part of the groundwater extraction and treatment system design, which was documented in the February 1994 Treatment Facility Design Report. Based on the results of the treatability study, it was determined that aeration alone was ineffective in oxidizing and removing dissolved manganese. As a result, the treatment system was designed to include oxidation of manganese with potassium permanganate. The treatability study also determined that the aeration system alone would be sufficient to remove expected influent concentrations of VOCs to the required effluent limits; therefore, a carbon adsorption polishing step would not be required.

In accordance with Component No. 7 of the selected remedy, organic emissions from the aeration basin were evaluated using the screening procedures outlines in NYSDEC Air Guide 1 (1991 edition), which was documented in the February 1994 Treatment Facility Design Report.

Based on the results of the screening, providing covers on the aeration basin and venting the air to a 25-foot stack would ensure compliance with NYSDEC air emission regulations.

In accordance with Component Nos. 8 and 10 of the selected remedy, monitoring of the ambient air at the landfill is completed at four locations, in accordance with the NYSDEC-approved Landfill Gas Monitoring Plan. Monitoring is completed using a calibrated, hand-held photoionization detector (PID) and recorded in parts per million (ppm) of total VOCs.

In accordance with Component No. 9 of the selected remedy, two additional extraction wells (EW-5 and EW-6) were designed and installed as part of the groundwater extraction and treatment system in order to intercept and treat the groundwater contamination identified in groundwater monitoring well 7M-1.

In accordance with Component No. 11 of the selected remedy, a deed restriction for the 22 parcels which make up the property of the landfill was filed by the Town on November 28, 2001, to prevent the installation of additional site structures and drinking water wells within impacted areas of the Site.

3.0 EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS

As indicated in **Section 2.0**, the remedy for the Blydenburgh Road Landfill Site was selected in order to achieve the identified RAOs for the Site.

Remedial Action Objective No. 1 - Minimize Infiltration into Landfill and Generation of Leachate

Both the MSW landfill cap and the Ash Monofill cap, in conjunction with the storm water management system, are effectively meeting the goals of RAO No. 1. Based on a review of the limited leachate collection system records, the total amount of leachate collected on a yearly basis has decreased since the landfill caps were constructed in 1993, which indicates that the caps and storm water management system are inhibiting the infiltration of rainfall or snow melt into the landfill.

The historical quantities of leachate captured from the MSW Phase II and Piggyback Areas, and the Ash Monofill are presented below. The years 1990, 1991 and 1993 represent the period after the active operation of the MSW Phase II and Phase III Piggyback Area and the Ash Monofill, and prior to the completion of the landfill capping system in 1993. The years 1994, 1995 and 1996 represent the years immediately after the construction of the landfill capping system. From 1990 through 1994, all of the leachate recorded was generated in the MSW Phase II Area, the Phase III Piggyback Area and the Ash Monofill. However, it must be noted that in 1995, a force main was constructed from the cleanfill leachate lagoons to allow cleanfill leachate to be transferred to the four MSW/Ashfill leachate storage tanks located in the northeast corner of the property. This force main allows for the cleanfill to access additional on-site storage volume prior to off-site disposal.

Due to the construction and operation of the cleanfill force main, the ability to differentiate between the volumes of leachate generated in the MSW/Ashfill versus the cleanfill leachate transferred was no longer possible. Consequently, the IRRA has performed bucket tests on several occasions to approximate the quantity of leachate continuing to be generated by the

MSW Piggyback/Ash Monofill Areas. Bucket tests were performed on August 8, 2008, August 3, 2011, February 11, 2014, November 18, 2014, December 4, 2015 and August 1, 2016. The annual quantities of leachate are summarized below.

Year	MSW Piggyback/ Ash Monofill Leachate (gallons/year)	Comment
1990	9,423,935	Land filling ends December 18, 1990.
1991	10,171,669	--
1992	10,798,667	--
1993	13,491,525	Landfill cap completed.
1994	3,294,952	--
1995	2,205,319	Cleanfill force main installed.
1996	1,150,891	No leachate from cleanfill transferred.
8/8/2008	156,817	Bucket test.
8/3/2011	254,898	Bucket test.
2/11/2014	343,779	Bucket test.
11/18/2014	330,566	Bucket test.
12/4/2015	351,750	Bucket test.
8/1/2016	262,800	Bucket test.

Given the above data, it is evident that the MSW landfill and Ash Monofill capping systems has provided a significant reduction in the quantity of leachate generated.

As stated above, both the MSW landfill cap and the Ash Monofill cap, in conjunction with the storm water management system, are effectively meeting the goals of RAO No. 1. Since the landfill caps were constructed in 1993, the majority of monitoring wells located in close proximity of the capped landfills, in general exhibit a reduction in TVOCs concentrations over time. Provided below are examples of downgradient wells which have exhibited a sizeable reduction in TVOCs. Note TVOCs are presented in ug/l.

Well #	GM-1I		4G-2		4M-1		6G-2		6G-3		8M-1		11G-1		11G-2	
Date	12/95	8/16	5/96	8/16	11/01	8/16	8/00	8/16	5/96	8/16	5/99	8/16	2/05	8/16	2/01	8/16
TVOC	76	ND	74	ND	78	33	54	ND	55	8	55	5	60	8	85	65

Well #	12M-1		14M-1		14G-1A		14G-2		18G-1		18G-2	
Date	1/96	8/16	2/01	8/16	4/96	8/16	7/97	8/16	4/96	8/16	5/96	8/16
TVOC	715	23	103	53	182	ND	107	ND	72	2	134	2

TVOC data from 1995-1996 has been previously reported in the Baseline Groundwater Remediation Monitoring Report prepared by D&B in August 1996.

Remedial Action Objective No. 2 - Prevent Inhalation of Landfill Vapors

Both the MSW landfill cap and Ash Monofill cap, in conjunction with the landfill gas management system, are effectively meeting the goals of RAO No. 2. Based on a review of the landfill gas and ambient air monitoring results for 2016, methane gas concentrations were recorded at 0% in the landfill gas monitoring wells, which are located at the perimeter of the Site or are located off-site in close proximity to the landfill property. Ambient air readings at the Site have exhibited no detectable concentrations of VOCs.

Remedial Action Objective No. 3 - Reduce the Movement and Toxicity of Landfill Leachate

Both the MSW landfill cap and Ash Monofill cap, in conjunction with the landfill leachate management system and the groundwater extraction and treatment system, are effectively meeting the goals of RAO No. 3. Based on a review of the current and historical groundwater analytical data for the groundwater monitoring wells located downgradient of the capped landfills, TVOCs have exhibited an overall reduction since the landfill caps were constructed in 1993 and the groundwater extraction and treatment system was constructed and placed in operation in 1996. Regarding TVOC reduction in downgradient monitoring wells, refer to **Section 3.0**, Remedial Action Objective No. 1.

Remedial Action Objective No. 4 - Reduce the Movement and Toxicity of Groundwater Contaminants

The groundwater extraction and treatment system is effectively meeting the goals of RAO No. 4. Based on a review of the current and historical groundwater analytical data for the monitoring wells located downgradient of the capped landfills, TVOCs have exhibited an overall reduction in concentration since the groundwater extraction and treatment system was constructed in 1996. Regarding TVOC reduction in downgradient monitoring wells, refer to **Section 3.0**, Remedial Action Objective No. 1.

It should be noted, groundwater monitoring well GM-1D screened in the deep Magothy aquifer has continued to exhibit concentrations of TVOCs of approximately 50 ppb. In accordance with the CMWP, a pilot study is being conducted to determine the feasibility of installing an additional extraction well within the vicinity of monitoring well GM-1D, in order to remediate the groundwater which has exhibited greater than 50 ppb of VOCs within that area.

In October 2013, the IRRA modified existing monitoring well GM-1D as a temporary extraction well. Specific details regarding the well conversion for GM-1D is presented in the CMWP, dated February 2011. On October 24, 2013 the submersible pump installed in temporary extraction well GM-1D was turned on and pumping activities commenced. During 2016 the IRRA continued the operation of the groundwater extraction and treatment system for EW-1, EW-3, EW-4 and EW-5. It should be noted, with the approval of the USEPA, both EW-2 and EW-6 will continue to remain off-line, but as part of maintenance, the pumps installed in these extraction wells will each be exercised on a monthly basis to allow for sampling of VOCs.

Remedial Action Objective No. 5 - Restore the Aquifer to Drinking Water Quality

Based on a review of the current groundwater analytical data for the monitoring wells downgradient of the capped landfills, individual VOC concentrations within multiple wells continue to exhibit concentrations slightly above applicable NYSDEC Class GA Groundwater Standards/Guidance Values. Overall VOC concentrations, when compared to historical results have exhibited a sizeable reduction since the landfill caps were constructed in 1993 and the groundwater extraction and treatment system was constructed in 1996. As per the ROD, monitored natural attenuation is the preferred remedy to treat groundwater concentrations less

than 50 ppb. Long term monitoring of the groundwater monitoring well network will continue in order to continue monitoring the natural attenuation of these VOC contaminants.

4.0 IC/EC PLAN COMPLIANCE

In accordance with the Institutional and Engineering Controls (IC/EC) Certification Form provided by the NYSDEC, the following is a summary of the IC/ECs for the Blydenburgh Road Landfill Complex:

- Institutional Control: Land use restrictions
- Engineering Control: Geosynthetic membrane cap
- Engineering Control: Storm water runoff control system
- Engineering Control: Landfill gas monitoring and control program
- Engineering Control: 350-gallon per minute pump and treatment system designed to capture groundwater within the 50 ppm contour
- Engineering Control: Perimeter site fence
- Engineering Control: Leachate collection with off-site disposal

As described above, an IC in the form of a land use restriction is required for the 22 parcels which make up the property of the landfill. This control is a nonphysical means to limit the use of the land and ensure no structures are built on the property and no potable groundwater wells are installed. The land use restriction is maintained by a Deed Restriction for the property, which was recorded in the Suffolk County Clerk's Office on November 28, 2001. The Town is currently in compliance and maintains the restriction by reviewing site conditions as part of the bi-annual monitoring and maintenance.

As described above, several ECs are required for the 22 parcels which make up the property of the landfill. By definition, an EC is any physical barrier or method employed to actively or passively contain, stabilize or monitor contamination, restrict the movement of contamination to ensure long-term effectiveness of a remedial program or eliminate potential exposure pathways to contamination. **Table 4-1** provides a description of each control, its objectives, how performance of the control is evaluated and a summary of the current status of each goal.

TABLE 4-1
BLYDENBURGH ROAD LANDFILL COMPLEX
2016 PERIODIC REVIEW REPORT
SUMMARY OF ENGINEERING CONTROLS

Engineering Control	Objective	How Performance Is Evaluated	Current Status
6 NYCRR Part 360 geosynthetic membrane cap, consisting of fill material, drainage layers, an impermeable membrane, and a gas-venting system	• Minimize the infiltration of rainfall or snow melt into the landfill, thus reducing the quantity of water percolating through the landfill materials and leaching out contaminants. • Prevent inhalation of vapors from the landfill. • Reduce the movement and toxicity of the contaminated landfill leachate into groundwater, and subsequent downgradient migration of contaminants.	• Semi-annual field inspection to assess the physical conditions of the cap. Refer to Landfill gas monitoring and control program • Semi-annual/annual groundwater sampling to assess the concentration of VOC, leachate and inorganic associated contaminants in the groundwater.	Landfill cap is in good condition and is meeting the objectives stated
Storm water runoff control system to divert storm water runoff from the landfill cap to on-site recharge basins	• Minimize the infiltration of rainfall or snow melt into the landfill, thus reducing the quantity of water percolating through the landfill materials and leaching out contaminants.	• Semi-annual field inspection to assess the physical conditions of the storm water runoff control system.	Storm water runoff control system is in good condition and is meeting the objectives stated.
Ground water extraction and treatment system designed to capture groundwater within the 50 ppm contour	• Reduce the movement and toxicity of contaminants in the groundwater. • Restore the aquifer to drinking-water quality.	• Monthly sampling of influent and effluent groundwater to assess the effectiveness of the groundwater pump and treatment system. • Semi-annual/annual groundwater sampling to assess the concentration of VOC, leachate and inorganic associated contaminants in the groundwater. • Daily field inspection of groundwater treatment system components to assess equipment operation and ensure they are operating in accordance with treatment system design parameters.	• The groundwater extraction and treatment system is in good condition and is effectively treating all influent concentrations of VOCs, iron and manganese to below the treatment system SPDES equivalent permit levels. • EW-1, EW-3, EW-4, EW-5 and temporary extraction well (GM-1D) during 2016 pumped at a combined rate of approximately 200 gpm, which is less than the design combined flow rate for the extraction wells (EW-1, EW-3, EW-4 and EW-5) of 265 gpm. However, GM-1D was taken off line on October 21, 2016 due to a problem with the submersible pump GM-1D was returned back to sevice on March 29, 2017. EW-5 was out of service between October 30, 2015 and March 3, 2016. • Analysis of the groundwater sampling data indicates that monitoring well GM-1D exhibits a concentration of total VOCs of approximately 50 ppb. In accordance with the CMWP, in October 2013, GM-1D was converted into a temporary extraction well to serve as a pilot test, as well as, capture VOC contamination in the vicinity of the well.
Leachate collection system	• Reduce the movement and toxicity of the contaminated landfill leachate into groundwater, and subsequent downgradient migration of contaminants.	• Semi-annual field inspection to assess the physical conditions of the leachate collection system.	Leachate collection system is in good condition and is meeting the objectives stated; however some general maintenance/repairs is scheduled to be completed by June 2017.
Perimeter site fence	• Prevent access to the landfill area by neighboring residents.	• Semi-annual field inspection to assess the physical conditions of the fence.	Perimeter site fence is in good condition and is meeting the objectives stated; however some general maintenance/repair is scheduled to be completed by June 2017
Landfill gas monitoring and control program	• Prevent off-site migration and inhalation of vapors from the landfill.	• Semi-annual field inspections to assess the physical conditions of the system. • Monthly monitoring of landfill gas extraction wells, blowers and landfill gas monitoring wells • Monthly ambient air sampling at four on-site perimeter locations	Results from the landfill gas monitoring program conducted on a monthly basis throughout the 2016 year, indicate that the landfill gas controls are effectively capturing landfill gases and preventing off-site migration

As summarized on **Table 4-1**, all ECs are currently in place and are effectively meeting their objective. The groundwater extraction and treatment system is effectively treating influent VOCs, iron and manganese to levels below the NYSDEC SPDES equivalency permit effluent limit.

During calendar year 2016, the combined average flow rate for temporary extraction well GM-1D and extraction wells EW-1, EW-3, EW-4 and EW-5 was approximately 200 gallons per minute (gpm).

Since 2007, monitoring well GM-1D, with the exception of a few sampling events, has exhibited concentrations of total VOCs slightly above 50 ppb. Based on these concentrations, and a gradual increasing historical trend in total VOCs in this well, the potential location of a groundwater extraction well at or in the vicinity of GM-1D will be evaluated to determine if it can effectively capture the plume within the area that continues to exhibit concentrations of total VOCs above 50 ppb.

In October 2013, a pilot study has commenced with the conversion of well GM-1D to a temporary extraction well. Specific details regarding the well conversion for GM-1D have been included as a part of the CMWP dated February 9, 2011, which was submitted to the NYSDEC.

A copy of the completed and certified IC/EC Certification Form is included in **Appendix A.**

5.0 MONITORING PLAN COMPLIANCE

The scope of the monitoring program for the Blydenburgh Road Landfill Complex addresses the groundwater extraction and treatment system, treatment system monitoring activities, groundwater monitoring activities, landfill gas monitoring and monitoring for VOCs in ambient air. Presented below is a summary of each monitoring activity performed throughout the 2016 reporting period, as well as associated performance standards, performance evaluation and compliance status.

Routine Groundwater Treatment System Monitoring Activities

Routine groundwater treatment system monitoring activities performed throughout the 2016 reporting period include the sampling of the various treatment system processes to monitor overall system removal efficiencies, while at the same time, ensure that all treatment system discharges are below applicable standards and/or discharge limits. The groundwater treatment system monitoring activities performed consists of the following:

- Collection and analysis of groundwater treatment facility influent and effluent samples on a monthly basis. Influent and effluent samples are analyzed for site-related VOCs, iron and manganese. The site related VOCs include vinyl chloride, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethane, 1,1,1-trichloroethane, benzene, trichloroethene, toluene, and tetrachloroethene.

A summary of the routine groundwater treatment system monitoring analyte's and their typical frequency of completion is provided on **Table 5-1**. Copies of the laboratory analytical data for the groundwater treatment system are provided in **Appendix B.**

The groundwater treatment system samples collected during the 2016 monitoring period were submitted to Pace Analytical laboratory for analysis. The Town of Islip provides the Discharge Monitoring Reports to the NYSDEC on a monthly basis.

TABLE 5-1
BLYDENBURGH ROAD LANDFILL COMPLEX
2016 PERIODIC REVIEW REPORT
GROUNDWATER TREATMENT SYSTEM, GROUNDWATER AND LANDFILL GAS MONITORING SUMMARY

Sampling Location	Sampling Frequency (X)			Analytical Parameters (X)						
	Monthly	Semi-Annual	Annual	VOCs (water)	Leachate Indicators	Inorganic Parameters	VOCs (air*)	CH_4	CO_2	O_2
Groundwater Treatment System										
Extraction Well EW-1 Influent		X		X	X	X				
Extraction Well EW-2 Influent[1]	X	X		X	X[3]	X[3]				
Extraction Well EW-3 Influent		X		X	X	X				
Extraction Well EW-4 Influent		X		X	X	X				
Extraction Well EW-5 Influent		X		X	X	X				
Extraction Well EW-6 Influent[1]	X	X		X	X[3]	X[3]				
Combined Influent	X			X[2]						
Effluent	X			X[2]						
Groundwater Monitoring Well Network										
GM-1S			X	X	X	X				
GM-1I		X		X	X	X				
GM-1D**		X		X	X	X				
GM-2S			X	X	X	X				
GM-2I			X	X	X	X				
GM-2D			X	X	X	X				
4G-1			X	X	X	X				
4G-2		X		X	X	X				
4M-1		X		X	X	X				
4M-2		X		X	X	X				
6G-1		X		X	X	X				
6G-2		X		X	X	X				
6G-3		X		X	X	X				
6M-1			X	X	X	X				
7M-1		X		X	X	X				
8G-1		X		X	X	X				
8M-1		X		X	X	X				
8M-2		X		X	X	X				
9G-1			X	X	X	X				
10G-1			X	X	X	X				

NOTES:
(1) EW-2 and EW-6 shut down in 2006. Extraction wells turned on once a month and sampled.
(2) Samples analyzed for site related VOCs.
(3) For EW-2 and EW-6, Part 360 Leachate Indicators and Inorganic Parameters analyzed on a semiannual basis.
* Ambient air is screened for VOCs using a calibrated PID meter.
** GM-1D converted into a temporary extraction well in October 2013.

TABLE 5-1 (cont.)
BLYDENBURGH ROAD LANDFILL COMPLEX
2016 PERIODIC REVIEW REPORT
GROUNDWATER TREATMENT SYSTEM, GROUNDWATER AND LANDFILL GAS MONITORING SUMMARY

Sampling Location	Sampling Frequency (X)			Analytical Parameters (X)						
	Monthly	Semi-Annual	Annual	VOCs (water)	Leachate Indicators	Inorganic Parameters	VOCs (air*)	CH_4	CO_2	O_2
10M-1		X		X	X	X				
11G-1		X		X	X	X				
11G-2		X		X	X	X				
11M-1			X	X	X	X				
12M-1		X		X	X	X				
13G-1		X		X	X	X				
13M-1		X		X	X	X				
14G-1A		X		X	X	X				
14G-2		X		X	X	X				
14M-1		X		X	X	X				
15G-1			X	X	X	X				
16G-1			X	X	X	X				
16M-1		X		X	X	X				
18G-1		X		X	X	X				
18G-2		X		X	X	X				
22M-1		X		X	X	X				
23M-1		X		X	X	X				
Landfill Gas Migration Control Wells (System A)										
A-01 through A-18	X							X	X	X
Blower A	X							X	X	X
Blower B	X							X	X	X
MW-07/20, 40, 60	X							X	X	X
MW-08/20, 40, 60	X							X	X	X
MW-11/20, 40, 60	X							X	X	X
MW-13/20	X							X	X	X
MW-51 through MW-54	X							X	X	X
Landfill Gas Migration Control Wells (System B)										
B-04 through B-15	X							X	X	X
Blower B	X							X	X	X
Blower C	X							X	X	X
MW-01/20, 40, 60	X							X	X	X
MW-02/20, 40, 60	X							X	X	X

NOTES:
(1) EW-2 and EW-6 shut down in 2006. Extraction wells turned on once a month and sampled.
(2) Samples analyzed for site related VOCs.
(3) For EW-2 and EW-6, Part 360 Leachate Indicators and Inorganic Parameters analyzed on a semiannual basis.
* Ambient air is screened for VOCs using a calibrated PID meter.

TABLE 5-1 (cont.)
BLYDENBURGH ROAD LANDFILL COMPLEX
2016 PERIODIC REVIEW REPORT
GROUNDWATER TREATMENT SYSTEM, GROUNDWATER AND LANDFILL GAS MONITORING SUMMARY

Sampling Location	Sampling Frequency (X)			Analytical Parameters (X)						
	Monthly	Semi-Annual	Annual	VOCs (water)	Leachate Indicators	Inorganic Parameters	VOCs (air*)	CH_4	CO_2	O_2
MW-25/20, 40, 60	X							X	X	X
MW-26/20, 40, 60	X							X	X	X
MW-27/20, 40, 60	X							X	X	X
MW-50	X							X	X	X
Landfill Gas Migration Control Wells (System C)										
C-01 through C-17	X							X	X	X
Blower C	X							X	X	X
MW-19/20, 40, 60	X							X	X	X
MW-23/20, 40, 60	X							X	X	X
MW-56 through MW-65	X							X	X	X
MSW Extraction Wells (Connected to System D)										
MSW-3-through. MSW-7	X							X	X	X
MSW-9 through MSW-19	X							X	X	X
Ambient Air										
Ambient 1	X						X			
Ambient 2	X						X			
Ambient 3	X						X			
Ambient 4	X						X			

NOTES:
(1) EW-2 and EW-6 shut down in 2006. Extraction wells turned on once a month and sampled by IRRA personnel.
(2) Samples analyzed for site related VOCs.
(3) For EW-2 and EW-6, Part 360 Leachate Indicators and Inorganic Parameters analyzed on a semiannual basis.
* Ambient air is screened for VOCs using a calibrated PID meter.

Groundwater Monitoring Activities

The IRRA implements a post closure groundwater sampling and monitoring program. The purpose of this program is to monitor groundwater quality and to evaluate the effectiveness of the selected remedy. The Post Closure Groundwater Monitoring Program is conducted in compliance with the NYSDEC approved Sampling and Analysis Plan (SAP), dated October 1996, revised January 2011.

The SAP provides for collecting synoptic water level measurements from 53 groundwater monitoring wells during the first and third quarters of each year. To evaluate changes in groundwater quality over time, groundwater samples are collected from 25 monitoring wells, one temporary extraction well (GM-1D) and 6 extraction wells during the first quarter of each year and groundwater samples are collected from 36 groundwater monitoring wells, one temporary extraction well (GM-1D) and 6 extraction wells during the third quarter of each year. It should be noted, groundwater samples from the monitoring wells and the extraction wells (EW-1 through EW-6) were originally collected on a quarterly basis and starting in 2006 have been collected semiannually. The monitoring wells and extraction wells were historically analyzed for Part 360 Baseline VOCs, iron and manganese. With the approval of the USEPA, extraction wells EW-2 and EW-6 were shut down in 2006. However, as part of maintenance for EW-2 and EW-6, both these wells are operated once a month to allow for sampling of VOCs. Groundwater monitoring well and extraction well locations are provided in **Figure 5-1.**

Commencing with the Third Quarter 2011 sampling event, in accordance with the Corrective Measures Work Plan (CMWP), dated February 2011, the groundwater samples collected from monitoring wells and extraction wells are analyzed for 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 22 were added for analysis to the Part 360 VOC list for the monitoring wells, extraction wells and temporary extraction well (GM-1D).

TOWN LINE ROAD
AMBER CT.
SITE 3
WHIPORWIL SCHOOL
LANDFILL GAS RECOVERY SYSTEM
SITE 9
SITE 22
TOWN OF ISLIP PROPERTY LINE FOR THE BLYDENBURGH LANDFILL
FENCE
SITE 7
EW-5
RECHARGE BASIN #2
RECHARGE BASIN #3
LEACHATE STORAGE TANKS
SITE 5
ASH MONOFILL
WOODS EDGE CT.
SITE 23
EW-6
MUNICIPAL SOLID WASTE LANDFILL
APPROXIMATE LOCATION OF UNLINED PHASE 1 MSW CELL
VILLAGE LA.
HOFFMAN LA.
BLYDENBURGH RD.
PHASE 2 CLEAN FILL
LEACHATE IMPOUNDMENTS
SITE 4
PHASE 1 CLEAN FILL
SITE 12
WINDWATCH SEWAGE TREATMENT PLANT
GRUMMAN RADIO TOWER
SITE 18
EW-2
SITE 6
EW-1
RECHARGE BASIN #1
SITE 11
SITE 14
RECHARGE WELLS
SITE 15
MILLMAY AVE.
LILCO RIGHT-OF-WAY
SITE 2
SITE 1
EW-4
EW-3
MOTOR PARKWAY
V-CABLE INC.
SITE 8
SITE 13
LONG ISLAND EXPRESSWAY
SITE 10
SUNFLOWER DR.
ANDREW MORROW SCHOOL
VETERANS HIGHWAY
SNOWBERRY LA.
SYCAMORE AVE.
SILVERLEAF
SITE 16

EXPLANATION

SITE 5 ● MONITORING WELLS

EW-1 ▲ EXTRACTION WELL(S)

0 1000 FEET
SCALE

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

D&B ENGINEERS AND ARCHITECTS, P.C.

ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH ROAD LANDFILL COMPLEX

MONITORING WELL AND EXTRACTION WELL LOCATIONS

FIGURE 5-1

F:\3763-7B\dwg\3763-7B-C-FIG 5-1.dwg, 5/9/2017 7:03:18 AM, kalesius

In accordance with the CMWP, temporary extraction well GM-1D is sampled bi-monthly throughout the calendar year. During calendar year 2016, groundwater samples were collected from temporary extraction well GM-1D, on March 1, 2016, April 22, 2016, June 29, 2016 and August 3, 2016. It should be noted, early in October of 2016 the submersible pump installed within GM-1D was malfunctioning and a representative groundwater sample could not be obtained. On October 21, 2016, temporary extraction well GM-1D was taken off line due to a malfunction with the submersible pump. A new pump was installed and GM-1D was returned to service on March 29, 2017.

A summary of the groundwater monitoring analyte's and their frequency of analysis is provided on **Table 5-1**.

The groundwater samples collected during the 2016 monitoring period were submitted to Pace Analytical laboratory for analysis. The Town of Islip submits the semiannual and annual Post Closure Groundwater Monitoring Reports to the NYSDEC.

Landfill Gas Monitoring and Ambient Air Monitoring

The capped MSW Landfill includes an active landfill gas collection/control system in order to reduce the potential migration of landfill gas. The IRRA retains a consultant to perform landfill gas and ambient air VOC monitoring on a monthly basis. Ambient air VOC monitoring is conducted to address the provision for this measure in the ROD and is performed at four locations near the landfill perimeter, including one location downwind from the flare system.

The landfill currently operates four definable landfill gas management systems on the site. These systems are identified at the A, B, C and D systems. The A, B and C systems address the areas of the site coinciding with the MSW Landfill and the Ash Monofill. The D system addresses the southern areas of the site coinciding with Cleanfill Phase I and Cleanfill Phase II. It should be noted, the MSW extraction wells extract gas from the top of the capped and closed MSW Landfill. The extracted gas is directed to the D System flares to be mixed with gases extracted from the Cleanfills. The extracted MSW gas serves to enhance the BTU content

of the Cleanfill gas stream and facilitate combustion in the enclosed ground flares. The landfill gas monitoring well systems locations are provided in **Figure 5-2**.

System A includes 18 migration control wells (A-01 through A-18), Blower A and 14 monitoring wells. System B includes 12 migration control wells (B-04 through B-15), Blower B and 16 monitoring wells. It should be noted; the A and B perimeter migration control systems are hydraulically connected and allow either the A or the B blower to operate both systems simultaneously. Both the A and the B blowers are available for operation. System C includes 17 migration control wells (C-01 through C-17), Blower C and 16 monitoring wells. The monitoring well screen zones for the three landfill gas systems typically range from 20 to 60 feet below grade. System D includes 16 MSW extraction wells (MSW-03 through MSW-07 and MSW-09 through MSW-19).

For each, landfill gas monitoring well, extraction well or blower location, the following readings are recorded (methane, carbon dioxide, oxygen, atmospheric pressure and gauge pressure). Methane, carbon dioxide and oxygen are reported in percent gas. Atmospheric pressure is reported in inches of mercury and relative well head pressure is reported in inches of water.

According to site personnel, either the A blower or B blower is currently operating on weekdays during work hours between 7:30 a.m. to 2:30 p.m. The C blower operates 6 days a week for approximately fifteen hours a day and is off on Sundays.

A total of four ambient air monitoring stations (Ambient 1 - Ambient 4) are monitored for VOCs, using a calibrated photoionization detector (PID). Typically, the ambient air monitoring is performed at the northern, southern, eastern and western portions of the landfill property.

A summary of the landfill gas and ambient air monitoring parameters along with the frequency of data collection is provided on **Table 5-1**.

HOFFMAN LANE

CLEANFILL PHASE 2 (ACTIVE)

CLEANFILL PHASE 1 (ACTIVE)

ASH MONOFILL (CAPPED AND CLOSED)

APPROXIMATE BOUNDARY

MUNICIPAL SOLID WASTE LANDFILL (CAPPED AND CLOSED)

APPROXIMATE BOUNDARY

PROPERTY LINE

RECHARGE BASIN No. 1

RECHARGE BASIN No. 3

LEACHATE STOARGE LAGOONS (2)

WEST

EAST

MAINTENANCE GARAGE

SCALES AND SCALEHOUSE

ADMINISTRATION BUILDING

BLYDENBURGH ROAD

TO "D" SYSTEMS

D SYSTEM - GROUND FLARES AND BLOWER COMPOUND

REMAINS OF LANDFILL GAS TO ENERGY RECOVERY FACILITY (LOST TO FIRE, JULY 1997)

SYSTEM B BLOWER COMPOUND

SYSTEM A BLOWER COMPOUND

SYSTEM C BLOWER COMPOUND

B FLARE

A FLARE

C FLARE

GARAGE

LEACHATE TRANSFER PUMP AND GENERATOR BUILDING

LEACHATE STORAGE TANKS

NOTE:

BASE TOPOGRAPHY PROVIDED BY GEOMAPS INTERNATIONAL FROM AERIAL PHOTOGRAPHS DATED JUNE 10, 1998 AND MARCH 18, 1995 (NORTHWEST CORNER)

LEGEND

- MW-09-20 — LANDFILL GAS MONITORING WELLS (DEPTH OF WELL INDICATED AS 20, 40, 60 FEET WHERE APPROPRIATE) MULTIPLE LISTINGS INDICATE A WELL CLUSTER
- B-12 — PERIMETER LANDFILL GAS MIGRATION CONTROL WELLS
- MW-50 — LANDFILL GAS MONITORING WELLS
- MW-60 (EXTENDED) — "EXTENDED" LANDFILL GAS MONITORING WELLS
- MW-14G2 — GROUNDWATER MONITORING WELLS
- MSW-17 — MSW VERTICAL EXTRACTION WELLS CONNECTED TO THE LANDFILL GAS D SYSTEM

D&B ENGINEERS AND ARCHITECTS, P.C.

ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH ROAD LANDFILL COMPLEX

LANDFILL GAS MONITORING WELL AND PERIMETER EXTRACTION WELL LOCATIONS

SCALE: 1"=250'

FIGURE 5-2

F:\3763-7B\dwg\3763-7B-C-FIG 5-2.dwg, 4/7/2017 2:33:49 PM, kalesius

The Town of Islip submits the Landfill Gas Monitoring Reports to the NYSDEC monthly.

Groundwater Treatment System Performance Evaluation

Volatile Organic Compounds

Based upon a review of monthly monitoring data for 2016, total volatile organic compound (TVOC) combined influent concentrations were less than 2 ug/l. Historically, TVOCs influent concentrations have been less than the 50 ppb TVOC target, specified in the ROD.

The treatment process remains effective, as shown by the reduction of the water contaminant levels in the effluent water that are below federal and state drinking water standards.

The six groundwater extraction wells (EW-1 through EW-6), have exhibited a pronounced decline in concentrations of TVOCs for the period of 1996 to present. Trend graphs depicting historical TVOCs for the extraction wells, as well as temporary extraction well GM-1D are presented in **Appendix C.** The 2016 VOC results for the extraction wells, as well as temporary extraction well GM-1D are presented in **Appendix D.**

Based on sample results for the monitoring period, TVOCs for EW-1 ranged from non-detect (including present) to a maximum of 50 ug/l in July 1996. Since November 2002 to the present, EW-1 exhibits a fairly stable trend in TVOCs. Since July 1998 to the present, individual VOCs have been detected below their respective groundwater standards/guidance values.

Based on sample results for the monitoring period, TVOCs for EW-2 ranged non-detect to a maximum of 36 ug/l in June 1996. Since October 1998 (excluding a few monthly samples), individual VOCs have been detected below their respective groundwater standards/guidance values. Since 1999 to present (excluding 2015), EW-2 exhibits a fairly stable trend in TVOCs).

Based on sample results for the monitoring period, TVOCs for EW-3 ranged from non-detect to a maximum of 80 ug/l in July 1998. EW-3 exhibits a decreasing trend in TVOCs. The majority of the contaminants in EW-3 were detected during the period from 1997 through the middle of 2005. During this time period, one or more VOC compounds (vinyl chloride, 1,1-dichloroethane, cis-1,2-dichloroethene, trichloroethene, tetrachloroethene and 1,4-dichlorobenzene) were detected above their respective groundwater standards/guidance values. Beginning in February 2009 to present, individual VOCs have been detected below their respective groundwater standards/guidance values.

Based on sample results for the monitoring period, TVOCs for EW-4 ranged from non-detect (including present) to a maximum of 100 ug/l in May 1999. EW-4 exhibits a decreasing trend in TVOCs. Since August 2002 (excluding two occasions), to present, individual VOCs have been detected below their respective groundwater standards/guidance values. Prior to August 2002, the similar suite of VOCs as detected in EW-3 was also detected in EW-4, at concentrations above their respective groundwater standards/guidance values.

Based on sample results for the monitoring period, TVOCs for EW-5 ranged from non-detect to a maximum of 13 ug/l in June 1996. EW-5 exhibits a fairly stable trend in TVOCs. Since February 2007 (excluding one occasion), individual VOCs have been detected below their respective groundwater standards/guidance values. Prior to 2007, 1,1,1-trichloroethane was occasionally detected slightly above the groundwater standard.

Based on sample results for the monitoring period, TVOCs for EW-6 ranged from non-detect (including present) to a maximum of 74 ug/l in June 1996. EW-6 exhibits a fairly stable trend in TVOCs. In general, (excluding three occasions), individual VOCs have historically been detected below their respective groundwater standards/guidance values.

In summary, the VOC groundwater results indicate that the groundwater treatment system is operating according to design. In general, VOC concentrations in groundwater for the majority of monitoring wells (28 out of 36) have remained at relatively low levels over the past five years. Essentially, VOC concentrations in groundwater have achieved asymptotic levels and

therefore, the groundwater treatment system has effectively remediated the aquifer system to its maximum extent.

Pilot Study for GM-1D

As previously mentioned in **Section 3.0,** temporary extraction well GM-1D commenced pumping activities on October 24, 2013. In accordance with the CMWP, GM-1D was sampled on a bi-monthly schedule. The groundwater samples collected from GM-1D were analyzed for NYSDEC Part 360 Baseline Parameters and the request of the NYSDEC, Freon 21 and Freon 22 was added to the Part 360 Baseline VOC list.

The VOC results for temporary extraction well GM-1D is contained in **Appendix D.** The 2016 bi-monthly samples exhibited TVOC concentrations ranging between 39 ug/l to 64 ug/l. VOCs which exhibited exceedances of their respective groundwater standards included: 1,1-dichloroethane, vinyl chloride, cis-1,2- dichloroethene, 1,4-dichlorobenzene and Freon 21.

Inorganic Parameters

The 2016 results of the inorganic parameters for the extraction wells (EW-1 through EW-6), as well as temporary extraction well GM-1D are contained in **Appendix D**. It should be noted, that the groundwater treatment system was designed to only treat the selected metals, iron and manganese in the groundwater. Inorganic Parameters which exceeded the NYSDEC Class GA Groundwater Standards/Guidance Values in one or more of the extraction wells, as well as temporary extraction well GM-1D are discussed below:

- Iron was detected above the groundwater standard (300 ug/l) in EW-2 at 6,740 ug/l (first quarter) and 7,070 ug/l (third quarter). In temporary well (GM-1D), iron was detected in the bi monthly samples at concentrations ranging between 234 ug/l to 527 ug/l.
- 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 which exceeded the groundwater standard ranged from 379 ug/l in EW-4 to 622 ug/l in EW-1.

- Magnesium was detected above the guidance value (35,000 ug/l) in temporary extraction well GM-1D in each of the bi monthly samples at a maximum concentration of 59,700 ug/l.

- Sodium was detected above the groundwater standard (20,000 ug/l) in 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 63,600 ug/l in EW-3 to 92,700 ug/l in EW-2. Sodium was detected in temporary extraction well GM-1D at a maximum concentration of 162,000 ug/l.

- Thallium was detected slightly above the guidance value (0.5 ug/l) in EW-5 at a concentration of 1.9 ug/l during the third quarter of 2016.

Leachate Indicators

The 2016 results of the leachate indicators for the extraction (EW-1 through EW-6), as well as, temporary extraction well GM-1D are contained in **Appendix D**. It should be noted, that the groundwater treatment system was not designed to treat leachate-contaminated groundwater. Two leachate indicators exceeded the NYSDEC Class GA Groundwater Standards/Guidance Values in one or more of the extraction wells, as well as in temporary extraction well GM-1D and is 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 3.31 mg/l in EW-3 to 13.9 mg/l in EW-4. In temporary extraction well GM-1D, ammonia was detected in each of the bi monthly samples at concentrations ranging between 5.89 mg/l to 6.29 mg/l.

- Phenol concentrations exceeded the groundwater standard (0.001 mg/l) in EW-4 during the first quarter sampling event at a concentration of 0.006 mg/l, as well as, in temporary extraction well GM-1D (April 2016) at a concentration of 0.006 mg/l.

Groundwater Monitoring Well Network Evaluation

A discussion of the historical groundwater data as it pertains to the remedial objectives for the Site is provided below. The ultimate objective of the selected remedy is to restore the groundwater to drinking water quality standards.

Volatile Organic Compounds

A review of the historical VOC groundwater monitoring data from 1996 through 2016 indicates an overall reduction in VOC levels in majority of the wells. The data indicates that VOC contaminant levels have decreased in majority of monitoring wells located in the Upper Glacial aquifer immediately downgradient of the capped landfill. This finding supports the conclusion that contaminants are not substantially leaching into groundwater since the capping of the landfill in 1993. This observation is also supported by the diminished quantities of leachate being produced from the landfill.

Trend graphs depicting historical TVOCs for the groundwater monitoring wells are contained in **Appendix C.** The 2016 VOC results for the groundwater monitoring wells are contained in **Appendix D.**

Historically, the primary VOCs found in the groundwater impacted by the Site are: dichloroethane, dichloroethene, trichloroethene, 1,1,1-trichloroethane, tetrachloroethene, chlorobenzene, dichlorobenzene and vinyl chloride.

In 2016, sampling data for the majority of the groundwater monitoring wells reflect very low (frequently non-detectable) levels of VOCs. Specifically, as of the August 2016 sampling event, 28 of 36 groundwater monitoring wells, reflect TVOC concentrations below 10 ug/l. Furthermore, seventeen of these groundwater monitoring wells showed non-detectable levels of VOCs. During the 2016 monitoring period, three wells (4M-1, 11G-2 and 14M-1) exceeded the remediation goal of 50 ug/l for TVOCs. Maximum TVOC concentrations were reported at 66 ug/l, 101 ug/l and 68 ug/l, for wells 4M-1, 11G-2 and 14M-1, respectively.

As of 2016, historical TVOC trends for groundwater monitoring wells, in general remained relatively stable in 26 of 36 monitoring wells. Decreasing TVOC trends are evident in 7 monitoring wells (4M-1, 6G-3, 7M-1, 11G-1, 12M-1, 14M-1 and 16M-1). Three monitoring wells (GM-2I, 10M-1 and 13M-1) and temporary extraction well GM-1D exhibited an increasing TVOC trend.

Groundwater monitoring wells, as well as temporary extraction well GM-1D which exhibited exceedances above groundwater standards/guidance values in 2016 is presented in **Table 5-2**. The individual VOC constituents, presented on the table, represent the maximum detected concentration for 2016.

In 2016, a total of 11 VOC constituents exceeded their respective groundwater standard/guidance value. The majority of the VOC compounds were primarily chlorinated solvents.

For monitoring wells screened in the Shallow Upper Glacial aquifer, 1 out of 12 wells (11G-1) showed slight exceedances above groundwater standards/guidance values.

For monitoring wells screened in the Mid Upper Glacial aquifer, 1 out of 5 wells (11G-2) showed slight exceedances above groundwater standards/guidance values.

For monitoring wells screened in the Deep Upper Glacial/Shallow Magothy aquifer, 7 out of 15 wells (GM-2I, 4M-1, 6G-3, 7M-1, 12M-1, 13M-1 and 14M-1) showed slight exceedances above groundwater standards/guidance values.

For monitoring wells screened in the Deep Magothy aquifer, 2 out of 5 wells (4M-2 and temporary extraction well GM-1D) showed slight exceedances above groundwater standards/guidance values.

TABLE 5-2
BLYDENBURGH ROAD LANDFILL COMPLEX
2016 PERIODIC REVIEW REPORT
SUMMARY OF VOLATILE ORGANIC COMPOUND EXCEEDANCES IN MONITORING WELLS

WELL ID	VOC Constituent	Benzene	Chlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	Freon 21	Vinyl Chloride	1,1-DCA	cis-1,2-DCE	PCE	111- TCA	Trichlorofluoromethane
	Groundwater Standard/ Guidance Value	1	5	3*	3*	5	2	5	5	5	5	5
Shallow Upper Glacial Wells (screened near or at water table)												
GM-1S		--	--	--	--	--	--	--	--	--	--	--
GM-2S		--	--	--	--	--	--	--	--	--	--	--
4G-1		--	--	--	--	--	--	--	--	--	--	--
6G-1		--	--	--	--	--	--	--	--	--	--	--
8G-1		--	--	--	--	--	--	--	--	--	--	--
9G-1		--	--	--	--	--	--	--	--	--	--	--
10G-1		--	--	--	--	--	--	--	--	--	--	--
11G-1		--	--	1	5	--	--	--	--	--	--	--
13G-1		--	--	--	--	--	--	--	--	--	--	--
15G-1		--	--	--	--	--	--	--	--	--	--	--
16G-1		--	--	--	--	--	--	--	--	--	--	--
18G-1		--	--	--	--	--	--	--	--	--	--	--
Mid-Upper Glacial Wells (screened above Smithtown Clay (-35 to -75 feet msl)												
4G-2		--	--	--	--	--	--	--	--	--	--	--
6G-2		--	--	--	--	--	--	--	--	--	--	--
11G-2		3	7	7	36	11	--	--	--	--	--	--
14G-1A		--	--	--	--	--	--	--	--	--	--	--
18G-2**		--	--	--	--	--	--	--	--	--	--	--
Deep Upper Glacial/Shallow Magothy Wells (screened -83 to -167 feet msl)												
GM-1I		--	--	--	--	--	--	--	--	--	--	--
GM-2I		--	--	--	--	--	--	--	--	8	--	6
4M-1		3	--	3	15	--	--	--	--	--	--	--
6G-3		--	--	1	6	--	--	--	--	--	--	--
7M-1		--	--	--	--	--	--	--	--	--	7	--
8M-1		--	--	--	--	--	--	--	--	--	--	--
10M-1		--	--	--	--	--	--	--	--	--	--	--
11M-1		--	--	--	--	--	--	--	--	--	--	--
12M-1		--	6	3	12	--	--	--	--	--	--	--
13M-1		--	--	--	6	10	--	--	8	10	--	--
14G-2		--	--	--	--	--	--	--	--	--	--	--
14M-1***		--	--	3	16	9	--	8	--	--	--	--
16M-1		--	--	--	--	--	--	--	--	--	--	--
22M-1		--	--	--	--	--	--	--	--	--	--	--
23M-1		--	--	--	--	--	--	--	--	--	--	--
Deep Magothy Wells (screened -228 to -368 feet msl)												
GM-1D****		--	--	--	6	16	6	--	11	--	--	--
GM-2D		--	--	--	--	--	--	--	--	--	--	--
4M-2		--	--	--	--	6	--	--	--	--	--	--
6M-1		--	--	--	--	--	--	--	--	--	--	--
8M-2		--	--	--	--	--	--	--	--	--	--	--

Notes:
All values reported in micrograms per liter (ug/l)
*: Applies to the sum of 1,2-Dichlorobenzene and 1,4-Dichlorobenzene
**: Well 18G-2 screened -9 to -29 feet msl.
***: Well 14M-1 screened -174 to -194 feet msl.
**** GM-1D was converted into a temporary extraction well in October 2013.
--: No exceedances
Exceeds the groundwater standard/giudance value.

In summary, the present groundwater quality for the majority of monitoring wells at the Blydenburgh Road Landfill Complex and surrounding area have exhibited an overall improvement in comparison to historical TVOC results. This can be attributed to the remedial components that have been established for the Site. Although several VOC constituents continue to be marginally detected above groundwater standards/guidance values, in general groundwater concentrations in the majority of monitoring wells have remained at relatively low levels over the past five years. Essentially, VOC concentrations in groundwater have achieved asymptotic levels and therefore, the groundwater treatment system has effectively remediated the aquifer system to its maximum extent.

Inorganic Parameters

Tabulated analytical results for inorganic parameters for the monitoring wells are presented in **Appendix D**. The individual inorganic parameters which contained the maximum detected concentrations exceeding NYSDEC Class GA groundwater standards/guidance values in 2016 are discussed below and presented in **Table 5-3**.

- Arsenic was detected above the groundwater standard (25 ug/l) in well 12M-1 (31.8 ug/l).
- Boron was detected above the groundwater standard (1,000 ug/l) in wells 4M-1 (1,740 ug/l), 11G-2 (1,680 ug/l) and 14M-1 (1,150 ug/l).
- Iron was detected above the groundwater standard (300 ug/l) in eight monitoring wells (4G-1, 4G-2, 4M-1, 4M-2, 11G-1, 11G-2, 12M-1 and 14M-1). Iron concentrations which exceeded the groundwater standard ranged from 321 ug/l in well 11G-1 to 5,850 ug/l in well 4G-1.
- Manganese was detected above the groundwater standard (300 ug/l) in ten monitoring wells (4G-1, 4G-2, 4M-1, 6G-3, 11G-1, 11G-2, 12M-1, 14M-1, 18G-1 and 18G-2). Manganese concentrations which exceeded the groundwater standard ranged from 1,630 ug/l in well 12M-1 to 15,800 ug/l in well 18G-1.
- Magnesium was detected above the groundwater guidance value (35,000 ug/l) in seven monitoring wells (4M-1, 8M-1, 10M-1, 12M-1, 13M-1, 14M-1 and 16M-1). Magnesium concentrations which exceeded the guidance value ranged from 36,100 ug/l in well 8M-1 to 79,100 ug/l in well 13M-1.

TABLE 5-3
BLYDENBURGH ROAD LANDFILL COMPLEX
2016 PERIODIC REVIEW REPORT
SUMMARY OF INORGANIC PARAMETER EXCEEDANCES IN MONITORING WELLS

WELL ID	Inorganic Parameter	Arsenic	Boron	Iron	Manganese	Magnesium	Nickel	Sodium	Thallium
	Groundwater Standard/ Guidance Value	25	1,000	300	300	35,000	100	20,000	0.5
Shallow Upper Glacial Wells (screened near or at water table)									
GM-1S		--	--	--	--	--	--	--	--
GM-2S		--	--	--	--	--	--	--	--
4G-1		--	--	--	--	--	--	--	--
6G-1		--	--	--	--	--	--	--	--
8G-1		--	--	--	--	--	--	--	--
9G-1		--	--	--	--	--	--	--	--
10G-1		--	--	--	--	--	--	--	--
11G-1		--	--	--	--	--	--	--	--
13G-1		--	--	--	--	--	--	--	--
15G-1		--	--	--	--	--	--	--	--
16G-1		--	--	--	--	--	--	--	--
18G-1		--	--	--	--	--	--	--	--
Mid-Upper Glacial Wells (screened above Smithtown Clay (-35 to -75 feet msl)						--			
4G-2		--	--	--	--	--	--	--	--
6G-2		--	--	--	--	--	--	--	--
11G-2		--	--	--	--	--	--	--	--
14G-1A		--	--	--	--	--	--	--	--
18G-2**		--	--	--	--	--	--	--	--
Deep Upper Glacial/Shallow Magothy Wells (screened -83 to -167 feet msl)									
GM-1I		--	--	--	--	--	--	--	--
GM-2I		--	--	--	--	--	--	--	--
4M-1		--	--	--	--	--	--	--	--
6G-3		--	--	--	--	--	--	--	--
7M-1		--	--	--	--	--	--	--	--
8M-1		--	--	--	--	--	--	--	--
10M-1		--	--	--	--	--	--	--	--
11M-1		--	--	--	--	--	--	--	--
12M-1		--	--	--	--	--	--	--	--
13M-1		--	--	--	--	--	--	--	--
14G-2		--	--	--	--	--	--	--	--
14M-1***		--	--	--	--	--	--	--	--
16M-1		--	--	--	--	--	--	--	--
22M-1		--	--	--	--	--	--	--	--
23M-1		--	--	--	--	--	--	--	--
Deep Magothy Wells (screened -228 to -368 feet msl)									
GM-1D****		--	--	--	--	--	--	--	--
GM-2D		--	--	--	--	--	--	--	--
4M-2		--	--	--	--	--	--	--	--
6M-1		--	--	--	--	--	--	--	--
8M-2		--	--	--	--	--	--	--	--

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

- Nickel was detected above the groundwater standard (100 ug/l) in wells 4M-1 (183 ug/l), 11G-1 (134 ug/l), 11G-2 (195 ug/l) and 14M-1 (102 ug/l).

- Sodium was detected above the groundwater standard (20,000 ug/l) in the majority of monitoring wells (25 out of 36). Sodium concentrations which exceeded the groundwater standard ranged from 29,100 ug/l in well 23M-1 to 433,000 ug/l/

- Thallium was detected above the groundwater guidance value (0.5 ug/l) in nine wells (4G-1, 4G-2, 4M-1, 4M-2, 6G-3, 8M-1, 14M-1, 18G-1 and 18G-2). Thallium concentrations in these wells ranged from 2.0 ug/l in well 4M-2 to 17.8 ug/l in well 18G-1.

Leachate Indicators

Tabulated analytical results for leachate indicators for the monitoring wells are presented in **Appendix D**. The individual leachate indicators which contained the maximum detected concentrations exceeding NYSDEC Class GA groundwater standards and guidance values in 2016 are discussed below and presented in **Table 5-4.**

- Ammonia 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). Ammonia concentrations which exceeded the groundwater standard ranged from 4.88 mg/l in well 4M-2 to 194 mg/l in well 4M-1.

- Bromide was detected above the groundwater guidance value (2 mg/l) in wells 4M-1 (5.69 mg/l), 4M-2 (2.07 mg/l), 11G-2 (4.44 mg/l) and 14M-1 (3.87 mg/l).

- Chloride was detected above the groundwater standard (250 mg/l) in wells 4M-1 (543 mg/l), 4M-2 (279 mg/l), 11G-2 (475 mg/l) and 14M-1 (385 mg/l).

- Phenols were detected above the groundwater standard (0.001 mg/l) in seven wells (4M-1, 8M-1, 11G-1, 11G-2, 12M-1, 13M-1 and 14M-1). Phenols which exceeded the groundwater standard ranged from 0.005 mg/l in 13M-1 to 0.044 mg/l in 11G-1.

Landfill Gas Monitoring Evaluation

Pursuant to 6 NYCRR Part 360 – 2.17 regulations, the Blydenburgh Road Landfill Complex utilizes an active landfill gas collection/control system in order to manage and reduce

TABLE 5-4
BLYDENBURGH ROAD LANDFILL COMPLEX
2016 PERIODIC REVIEW REPORT
SUMMARY OF LEACHATE INDICATOR EXCEEDANCES IN MONITORING WELLS

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		--	--	--	--
GM-2S		--	--	--	--
4G-1		14.7	--	--	--
6G-1		--	--	--	--
8G-1		--	--	--	--
9G-1		--	--	--	--
10G-1		--	--	--	--
11G-1		156	--	--	0.044
13G-1		--	--	--	--
15G-1		--	--	--	--
16G-1		--	--	--	--
18G-1		34.8	--	--	--
Mid-Upper Glacial Wells (screened above Smithtown Clay (-35 to -75 feet msl)					
4G-2		--	--	--	--
6G-2		--	--	--	--
11G-2		188	4.44	475	0.024
14G-1A		--	--	--	--
18G-2**		8.29	--	--	--
Deep Upper Glacial/Shallow Magothy Wells (screened -83 to -167 feet msl)					
GM-1I		--	--	--	--
GM-2I		--	--	--	--
4M-1		194	5.69	543	0.022
6G-3		9.33	--	--	--
7M-1		--	--	--	--
8M-1		11.2	--	--	0.007
10M-1		--	--	--	--
11M-1		--	--	--	--
12M-1		--	--	--	0.007
13M-1		--	--	--	0.005
14G-2		--	--	--	--
14M-1***		65.8	3.87	385	0.006
16M-1		--	--	--	--
22M-1		--	--	--	--
23M-1		--	--	--	--
Deep Magothy Wells (screened -228 to -368 feet msl)					
GM-1D****		6.29	--	--	--
GM-2D		--	--	--	--
4M-2		4.88	2.07	279	--
6M-1		--	--	--	--
8M-2		--	--	--	--

Notes:
All values reported in milligrams per liter (mg/l)
**: Well 18G-2 screened -9 to -29 feet msl.
***: Well 14M-1 screened -174 to -194 feet msl.
**** GM-1D was converted into a temporary extraction well in October of 2013.
---: No exceedances
Exceeds the groundwater standard/giudance value.

the potential for off-site migration of landfill gas. The IRRA monitors for methane gas from both monitoring wells placed along the perimeter of the landfill site and from gas extraction wells and systems within the landfill complex.

A review of the 2016 monthly landfill gas monitoring reports for the flare systems (A through C), showed a relatively low percentage of methane gas ranging from 0 to 1%. The extraction wells associated with these gas systems showed relatively low percentages of methane ranging from 0 to 2%. Methane gas in the monitoring well array both on site and off site were recorded at 0%. A copy of the monthly landfill gas monitoring reports is provided in **Appendix E**.

For the 2016 monthly reporting period, ambient air VOC monitoring with the PID meter at four locations (Ambient 1-Ambient 4) were all measured at 0.0 parts per million (ppm). A copy of the ambient air monitoring results is provided as part of the monthly landfill gas monitoring reports included in **Appendix E**.

Based upon the 2016 results, landfill gas is not migrating beyond the landfill boundary. VOCs have not been detected at the four ambient air locations. It is concluded that the active landfill gas collection/control system is operating effectively. Based on these findings, there are no known deficiencies with the landfill gas management system.

6.0 OPERATION AND MAINTENANCE PLAN COMPLIANCE

The operation and maintenance (O&M) scope of services for the Blydenburgh Road Landfill Complex is completed in accordance with the Post Closure Monitoring and Maintenance Plan (PCMMP) dated March/October 1996, revised January 2011 and January 2015. The PCMMP specifies the O&M inspection activities to be completed for the following landfill management systems: municipal solid waste (MSW) landfill/ash Monofill cover; storm water management system; leachate management system; landfill gas condensate collection system; landfill gas management system; groundwater management system; perimeter site security system; and the groundwater extraction and treatment facility.

Table 6-1 provides a summary of the required O&M inspection activities and their typical frequency of completion. Presented below is a summary of the O&M inspections and activities associated with the landfill management systems completed throughout 2016.

Municipal Solid Waste Landfill/Ash Monofill Cover

The MSW and Ash Monofill cover systems are field inspected by an IRRA employee on a semiannual basis. Field inspections were completed on June 6, June 7, 2016 and March 8, 2017. Copies of the completed inspection forms are included in **Appendix F**. As noted on the forms, all areas of the MSW and Ash Monofill cover system are adequate and operating as designed, with the exception of the revetment mats on the MSW Landfill. Movement of the revetment mats was noted on the eastern, southern and western side slopes of the MSW. However, maintenance of the MSW and Ash Monofill cover systems was not required during the 2016 year.

It should be noted, inspections and observations are continuing to be performed as they have been. These observations must be viewed in the context of a capped and closed landfill in the post closure period of its existence. Therefore, any observations noted as part of the inspections, are considered and evaluated to access whether the conditions impact the functions

TABLE 6-1
BLYDENBURGH ROAD LANDFILL COMPLEX
2016 PERIODIC REVIEW REPORT
OPERATION AND MAINTENANCE PLAN INSPECTION SUMMARY

Landfill Management System	Schedule of Inspection (X)						After 5-year 24-hour Storm (X) [1]
	Daily	Weekly	Monthly	Quarterly	Semi-Annual	Annually	
Final Cover System							
All Components (primary areas)					X		X
Entire Landfill Surface						X	
Surface Water Management System							
Entire System					X		X
Leachate Management System							
Critical operating equipment, tank and controls		X					X
Low maintenance components					X		X
Landfill Gas Management System							
Critical operating eqnipment		X	X				
Low maintenance components					X		X
Groundwater Management System							
Entire system				X			X
Perimeter Site Security System							
Entire system					X		X
Groundwater Extraction and Treatment System							
Inspection of all treatment system eqnipment	X						
Laboratory tests	X						
Change flow rate charts		X					
Extraction well assessment			X				
Recharge well assessment			X				
Inventory of Consumables				X			
Equipment Maintenance/Repair	Performed as needed						

NOTES
(1) 5-year, 24-hour storm event generates 4.5 inches of precipitation at the landfill.

of the system or compromise the intent of the design and whether any maintenance or remedial activities are required. If deemed warranted, any required repairs or remediation will be implemented by the IRRA during the closure and capping activities of Phase 1 and Phase 2 Cleanfill Landfills.

Storm Water Management System

The storm water management system is field inspected by an IRRA employee on a semiannual basis. Field inspections were completed on June 6, June 7, 2016 and March 8, 2017. Copies of the completed inspection forms are included in **Appendix F.**

As noted on the forms, open channel diversion swales (1-A through AF-3) exhibited excess vegetation growth with settlement/subsidence. Erosion was noted for down chute No. 1. Cracking/spalling was noted at perimeter channels P-4 and P-5. For recharge basin No.1, erosion was noted on the side slopes. For recharge basin No. 2, excess vegetation was noted on the side slopes and bottom, as well as excess vegetation and settlement/subsidence at diversion swales AR-2 and AF-3 outfalls.

In general, most perimeter channels, down chutes, control structures, above grade culverts and recharge basins appurtenances of the storm water management system are adequate and operating as designed. It should be noted, settlement and or subsidence are normal and to be expected on a capped landfill, provided the degree of settlement and or subsidence does not detrimentally impact the function of the system being considered.

Leachate Management System

The leachate management system is field inspected by an IRRA employee on a semiannual basis. Field inspections were completed on May 18, June 6, June 10, July 7, July 20, 2016 and March 22, 2017. Copies of the completed inspection forms are included in **Appendix F.** As noted on the forms, for pump station manhole No. 1, a total of 8,427,889 gallons of leachate have been pumped and removed for subsequent off-site transportation and

treatment. However, it should be noted that this volume includes the leachate from Phases 1 and 2 Cleanfill Landfills and any condensate. Overall, areas of the leachate management system are adequate and operating as designed.

However, certain deficiencies/maintenance items were noted as part of the inspections. The items noted include the following:

- Pump station manhole No. 1 control panel seal leak continuity test was inoperable;
- Tank containment sump pump control panel seal leak continuity test was inoperable.
- Manhole No. 1 metering vault contained standing liquid;
- Manhole No. 5 needs to be labeled and band clamp needs to be reconnected;
- Transfer switch at emergency diesel generator was inoperable;
- Manhole No. 4 hatch broken, requires repair;
- MSW Manholes No. 5, 6 and 7 contained standing liquid and
- Ash monofill Manhole No. 12 vent needs repair.

Additional maintenance on the landfill leachate management system completed during the last year included exercising of the leachate storage tank valves once per week and lubrication of the leachate storage tank valves once per month.

Landfill Gas Condensate Collection System

The landfill gas condensate collection system is field inspected by an IRRA employee on a semiannual basis. Field inspections were completed on June 13, June 21, 2016 and March 20, 2017. Copies of the completed inspection forms are included in **Appendix F**. As noted on the forms, all areas of the condensate collection system for landfill gas are adequate and operating as designed.

However, certain deficiencies/maintenance items were noted as part of the inspections. The items noted include the following:

- Manhole A precast requires maintenance;
- Manhole A condensate piping requires maintenance and
- System hardware and components for common header valve V-201 and Phase III V-203, requires maintenance.

Landfill Gas Management System

The landfill gas management system is field inspected by an IRRA employee on a semiannual basis. Field inspections were completed on June 21, July 20, 2016 and March 23 and May 1, 2017. Copies of the completed inspection forms are included in **Appendix F**. As noted on the forms, all areas of the landfill gas management system are adequate and operating as designed.

Additional maintenance on the landfill gas management system completed during the last year included servicing of the methane detection device at the Red House, Scale House and A-System Building on May 12, 2016 and February 13, 2017.

Groundwater Management System

The groundwater management system is field inspected on a quarterly basis by D&B on behalf of IRRA. Field inspections were completed on February 23, 2016, May 16, 2016, August 2, 2016 and November 7, 2016. Copies of the completed inspection forms are included in **Appendix F**. As noted on the forms, all areas of the groundwater management system are adequate and operating as designed.

Perimeter Site Security System

The perimeter site security system is field inspected by an IRRA employee on a semiannual basis. Field inspections were completed on July 26, 2016, March 8, 20, 22, 23, 2017 and May 1, 2017. Copies of the completed inspection forms are included in **Appendix F**. As noted on the forms, all areas of the perimeter site security system are adequate and operating as designed.

However, certain deficiencies/maintenance items were noted as part of the inspections and included:

- Western perimeter fence by Ash Monofill needs repair;
- Northern perimeter fence by recharge basin No. 3 needs repair and
- Visibility of warning signs due to vegetation noted along the northern, southern and western perimeters at the Site.

Groundwater Extraction and Treatment Facility

The groundwater extraction and treatment facility is manned by an IRRA employee on a daily basis. Various inspections are completed at the facility on a daily, weekly, monthly and quarterly basis.

Daily inspections include the recording of the operating conditions for the treatment system equipment on a "daily operators inspection form." Recorded information includes the following: influent flow; effluent flow; extraction well on/off status; blower on/off status; chemical feed pump on/off status; flocculation tank mixer speed, potassium permanganate levels; polymer tank levels; sludge holding tank levels; and various other equipment information. Any deficiencies noted during the course of the daily inspections are noted and addressed at that time. Copies of the treatment system facility equipment service record and facility equipment repair record, documenting the service and repairs completed during 2016, are provided in **Appendix G.**

The treatment plant operates extraction wells EW-1, EW-3, EW-4 and EW-5, as well as temporary extraction well GM-1D. It should be noted; extraction wells EW-2 and EW-6 were shut down in May of 2006, due to non-detect concentrations being extracted from the wells and are still currently not in operation. However, as part of maintenance, on a monthly basis, EW-2 and EW-6 are energized (turned on) to allow groundwater within both extraction wells to be purged and sampled for VOCs.

In accordance with the Corrective Measures Work Plan (CMWP), monitoring well GM-1D was converted to a temporary extraction well and was placed in service on October 24, 2013. The discharge water from GM-1D is conveyed to the treatment plant via the existing force main that services EW-3 and EW-4.

Based on the 2016 calendar year readings from the treatment system flow meter, extraction wells (EW-1, EW-3, EW-4 and EW-5) and temporary extraction well GM-1D, operated at a combined effluent flow rate of approximately 200 gallons per minute (gpm). Excluding GM-1D, the combined average effluent flow is less than the design combined flow rate of 265 gpm for these four extraction wells (EW-1, EW-3, EW-4 and EW-5). It should be noted, extraction well EW-5 was taken out of service between October 30, 2015 and March 3, 2016. Extraction Well EW-4 was experiencing diminishing flow concerns on May 20, 2016 and on December 27, 2016 was taken out of service and is under investigation. On October 21, 2016 temporary extraction well GM-1D was taken out of service due to a malfunctioning submersible pump. A new submersible pump was installed and GM-1D was returned back to service on March 29, 2017. Based on readings from the treatment system total effluent flow meter, the treatment system has discharged approximately 2,431,516,213 gallons of treated groundwater to the network of groundwater recharge wells. In general, the treatment system equipment is operating as intended.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Compliance with SMP

Based on an evaluation of the remedy performance, effectiveness and protectiveness for the MSW and Ash Monofill landfill caps, landfill leachate system, landfill gas system and groundwater treatment system throughout the 2016 monitoring period, the following conclusions are presented:

IC/EC Plan

As noted in **Section 4.0**, all ICs are currently in place and all EC requirements, as listed in the IC/EC Certificate Form provided by the NYSDEC, are currently in place and operating as intended.

Monitoring Plan

As noted in **Section 5.0**, monitoring requirements were maintained throughout the 2016 reporting period in accordance with 6 NYCRR Part 360 regulations and the SAP dated October 1996, revised January 2011.

O&M Plan

As noted in **Section 6.0**, the O&M scope of services was performed in accordance with the Post Closure Monitoring and Maintenance Plan (PCMMP). The MSW and Ash Monofill cover systems are adequate and operating as designed. However, revetment mats on the eastern, western and southern side slopes of the MSW exhibited movement. It should be noted maintenance of the MSW and Ash Monofill cover systems was not warranted during the 2016 year. The storm water management system is adequate and operating as designed. However, open channel diversion swales exhibited excess vegetation growth with settlement/subsidence. Erosion was noted for down chute No. 1, cracking/spalling was noted at perimeter channels P-4

and P-5. For recharge basin No.1, erosion was noted on the side slopes. For recharge basin No. 2, excess vegetation was noted on the side slopes and bottom, as well as excess vegetation with settlement/subsidence at diversion swales AR-2 and AF-3 outfalls. The groundwater management system and the configuration of the groundwater monitoring wells are adequate and functioning as intended. For the leachate system, landfill gas condensate collection system, and the perimeter site security system, certain deficiencies/maintenance items were noted during the semiannual inspections. These items noted during the inspections are scheduled to be completed by the next semiannual inspection in June 2017.

Performance and Effectiveness of the Remedy

As noted in **Section 3.0**, RAO Nos. 1, 2 and 3 are currently being met, based on the performance of the MSW landfill cap, Ash Monofill cap, storm water management system, landfill gas management system and leachate management system, as well as the results of the monitoring completed for the groundwater, landfill gas and treatment system water.

RAO Nos. 4 and 5 have been implemented and continued to demonstrate substantial progress towards achieving the overall remediation design goal. However, in an effort to further meet RAO No.4, in the fall of 2013 a pilot study commenced converting GM-1D to a temporary extraction well. The purpose of the pilot study is to determine the feasibility of installing an additional extraction well in the vicinity of monitoring well GM-1D, in order to assess its ability to capture groundwater with VOC concentrations greater than 50 ppb.

During 2016, GM-1D was sampled in the months of March, April, June and August, 2016. These groundwater samples were collected during pumping conditions. TVOCs in GM-1D for these months ranged between 39 ug/l and 64 ug/l.

As of the Third Quarter 2011 sampling event, the Post Closure Groundwater Sampling Program was modified to develop a revised data base with which to develop informed decisions regarding the need for revisions to the existing groundwater remediation system and/or the scope of the groundwater monitoring program.

Additional information and details regarding the above have been provided as part of a Corrective Measures Work Plan, which was submitted to the NYSDEC on February 9, 2011.

Periodic Review Frequency Recommendations

The submittal of the Periodic Review Report (PRR) shall be completed on an annual basis until such time as groundwater monitoring data demonstrates a consistent and sustainable water quality improvement as determined in consultation with the NYSDEC.

APPENDIX A

INSTITUTIONAL AND ENGINEERING CONTROL CERTIFICATION FORM

Enclosure 1

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details — Box 1

Site No. 152002

Site Name Blydenburgh Landfill, Town of Islip

Site Address: 600 Blydenburgh Road 440 Zip Code: 11788

City/Town: Hauppauge

County: Suffolk

Allowable Use(s) (if applicable, does not address local zoning): Industrial

Site Acreage: 55.0

Verification of Site Details — Box 2

	YES	NO
1. Are the Site Details above, correct?	☐	☑
If NO, are changes handwritten above or included on a separate sheet?	☑	
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment since the initial/last certification?	☐	☑
If YES, is documentation or evidence that documentation has been previously submitted included with this certification?	☐	
3. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property since the initial/last certification?	☐	☑
If YES, is documentation (or evidence that documentation has been previously submitted) included with this certification?	☐	
4. If use of the site is restricted, is the current use of the site consistent with those restrictions?	☑	☐
If NO, is an explanation included with this certification?	☐	
5. For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7(c), has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☐ N/A
If YES, is the new information or evidence that new information has been previously submitted included with this Certification?	☐	
6. For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7(c), are the assumptions in the Qualitative Exposure Assessment still valid (must be certified every five years)?	☐	☐ N/A
If NO, are changes in the assessment included with this certification?	☐	

SITE NO. 152002

Description of Institutional Controls

Parcel	Institutional Control
S_B_L Image: 016-01-009	Decision Document Landuse Restriction
S_B_L Image: 016-01-013.005	Decision Document Landuse Restriction
S_B_L Image: 016-01-013.006	Decision Document Landuse Restriction
S_B_L Image: 016-01-013.007	Decision Document Landuse Restriction
S_B_L Image: 016-01-016.001	Decision Document Landuse Restriction
S_B_L Image: 027-01-022	Decision Document Landuse Restriction
S_B_L Image: 027-01-023	Decision Document Landuse Restriction
S_B_L Image: 027-01-024	Decision Document Landuse Restriction
S_B_L Image: 027-01-025	Decision Document Landuse Restriction
S_B_L Image: 027-01-026	Decision Document Landuse Restriction
S_B_L Image: 027-02-001	Decision Document Landuse Restriction
S_B_L Image: 027-02-002	Decision Document Landuse Restriction
S_B_L Image: 027-02-003	Decision Document Landuse Restriction
S_B_L Image: 016-02-003.001	Decision Document Landuse Restriction
S_B_L Image: 016-02-004	Decision Document Landuse Restriction
S_B_L Image: 027-02-004	Decision Document Landuse Restriction
S_B_L Image: 027-02-005	Decision Document Landuse Restriction
S_B_L Image: 027-02-006	Decision Document Landuse Restriction
S_B_L Image: 027-02-007	Decision Document

	Landuse Restriction
S_B_L Image: 027-02-018	
	Decision Document
	Landuse Restriction
S_B_L Image: 027-02-020	
	Decision Document
	Landuse Restriction
S_B_L Image: 027-02-024	
	Decision Document
	Landuse Restriction

Box 4

Description of Engineering Controls

Parcel	Engineering Control
S_B_L Image: 016-01-009	
	Cover System
	Fencing/Access Control
	Leachate Collection
	Pump & Treat
S_B_L Image: 016-01-013.005	
	Cover System
	Fencing/Access Control
	Leachate Collection
	Pump & Treat
S_B_L Image: 016-01-013.006	
	Cover System
	Fencing/Access Control
	Leachate Collection
	Pump & Treat
S_B_L Image: 016-01-013.007	
	Cover System
	Fencing/Access Control
	Leachate Collection
	Pump & Treat
S_B_L Image: 016-01-016.001	
	Cover System
	Fencing/Access Control
	Leachate Collection
	Pump & Treat
S_B_L Image: 027-01-022	
	Cover System
	Fencing/Access Control
	Leachate Collection
	Pump & Treat
S_B_L Image: 027-01-023	
	Cover System
	Fencing/Access Control
	Leachate Collection
	Pump & Treat
S_B_L Image: 027-01-024	
	Cover System
	Fencing/Access Control
	Leachate Collection
	Pump & Treat
S_B_L Image: 027-01-025	
	Cover System
	Fencing/Access Control
	Leachate Collection
	Pump & Treat
S_B_L Image: 027-01-026	
	Cover System
	Fencing/Access Control
	Leachate Collection
	Pump & Treat
S_B_L Image: 027-02-001	

Parcel	Engineering Control
	Cover System Fencing/Access Control Leachate Collection Pump & Treat
S_B_L Image: **027-02-002**	Cover System Fencing/Access Control Leachate Collection Pump & Treat
S_B_L Image: **027-02-003**	Cover System Fencing/Access Control Leachate Collection Pump & Treat
S_B_L Image: **016-02-003.001**	Cover System Fencing/Access Control Leachate Collection Pump & Treat
S_B_L Image: **016-02-004**	Cover System Fencing/Access Control Leachate Collection Pump & Treat
S_B_L Image: **027-02-004**	Cover System Fencing/Access Control Leachate Collection Pump & Treat
S_B_L Image: **027-02-005**	Cover System Fencing/Access Control Leachate Collection Pump & Treat
S_B_L Image: **027-02-006**	Cover System Fencing/Access Control Leachate Collection Pump & Treat
S_B_L Image: **027-02-007**	Cover System Fencing/Access Control Leachate Collection Pump & Treat
S_B_L Image: **027-02-018**	Cover System Fencing/Access Control Leachate Collection Pump & Treat
S_B_L Image: **027-02-020**	Cover System Fencing/Access Control Leachate Collection Pump & Treat
S_B_L Image: **027-02-024**	Cover System Fencing/Access Control Leachate Collection Pump & Treat

Attach documentation if IC/ECs cannot be certified or why IC/ECs are no longer applicable: (See instructions)

Control Description for Site No. 152002

Parcel: 016-01-009

Control Description for Site No. 152002

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 016-01-013.005

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 016-01-013.006

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 016-01-013.007

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 016-01-016.001

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 016-02-003.001

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 016-02-004

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-01-022

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control

program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-01-023

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-01-024

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-01-025

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-01-026

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-02-001

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-02-002

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-02-003

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural

attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-02-004

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-02-005

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-02-006

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-02-007

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-02-018

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-02-020

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land, fencing / access control, per ROD & CO.

Parcel: 027-02-024

Controls include components in compliance with 6NYCRR Parts 360 and 375: a 52 acre modified geosynthetic membrane cap, stormwater runoff control system, landfill gas monitoring and control program, 350 gpm P&T system designed to capture GW within the 50 ppm contour, long term monitoring for remedy effectiveness and plume management, the GW program specifically including natural attenuation processes until GW standards are met for ground water not anticipated to be captured , NY State Pollution Discharge Elimination System permit equivalent, land use restriction to run with the land,

Control Description for Site No. 152002

fencing / access control, per ROD & CO.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☑	☐

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

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

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

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

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

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

YES	NO
☑ (*)	☐

3. If this site has an Operation and Maintenance (O&M) Plan (or equivalent as required in the Decision Document);

   I certify by checking "YES" below that the O&M Plan Requirements (or equivalent as required in the Decision Document) are being met.

YES	NO
☑	☐

4. If this site has a Monitoring Plan (or equivalent as required in the remedy selection document);

   I certify by checking "YES" below that the requirements of the Monitoring Plan (or equivalent as required in the Decision Document) is being met.

YES	NO
☑ (*)	☐

n order to improve upon the database of information relative to the groundwater quality associated with the Site and improve the efficiency of the groundwater treatment system to meet the goals of the ROD, the IRRA proposes to modify one of the existing groundwater monitoring wells to serve as a temporary extraction well and revise the current sampling and analysis of the groundwater monitoring array to include the baseline groundwater parameters identified by 6 NYCRR Part 360 Please see the February 9, 2011 Blydenburgh Road Landfill Corrective Measures Work Plan (Attachment A of this certificatior form) for more detailed information regarding these recommendations.

IC CERTIFICATIONS
SITE NO. 152002

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 2 and/or 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I A. J. Varricchio at 401 Main St Islip NY
print name print business address

am certifying as Owner Rep. (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner or Remedial Party Rendering Certification — Date 6/7/17

IC/EC CERTIFICATIONS

Box 7

QUALIFIED ENVIRONMENTAL PROFESSIONAL (QEP) SIGNATURE

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I A. J. Varricchio at 401 Main St Islip NY
print name print business address

am certifying as a Qualified Environmental Professional for the Owner (Bypass Trail)

(Owner or Remedial Party) for the Site named in the Site Details Section of this form.

STATE OF NEW YORK
ANTHONY J. VARRICHIO
No. 062473
LICENSED PROFESSIONAL ENGINEER

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification — Stamp (If Required) — Date 6/7/17

ATTACHMENT A

BLYDENBURGH ROAD LANDFILL
CORRECTIVE MEASURES WORK PLAN

ISLIP RESOURCE RECOVERY AGENCY 401 MAIN STREET, ISLIP, NEW YORK 11751 (631) 224-5644

February 9, 2011

Cynthia Whitfield, P.E., Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, 11th Floor
625 Broadway
Albany, NY 12233-7015

Re: Town of Islip
Blydenburgh Road Landfill
NYSDEC Site No. 152002

Dear Ms. Whitfield:

Pursuant to your correspondence of October 8, 2009 and April 2, 2010, the Islip Resource Recovery Agency (IRRA) has prepared this Corrective Measures Work Plan (CMWP) to address the issues that you have enumerated relative to the Blydenburgh Road Landfill.

As you are aware, the IRRA has prepared updates to the Sampling and Analysis Plan (SAP) and the Post Closure Monitoring and Maintenance Plan(s) (PCMMP) for the capped and closed MSW Landfill/Ash Monofill and the groundwater remediation system. These documents represent Volumes 1 through 5 of 5 (Volume 2, change to cover only) and were submitted to you previously, under separate cover, as draft documents for your review and approval. For the purpose of this correspondence, it is assumed that the updates are sufficient to address the current conditions at the site, pending your review and comment.

It is our assumption that we have provided sufficient information in the Corrective Action Plan (CAP), also submitted previously, to address the issue of an elevated reading for landfill gas in an offsite landfill gas monitoring well. The issue was addressed by a prompt adjustment to the operations of the landfill gas migration control systems.

The issue of groundwater quality at the site and the Town's proposed corrective measures will be discussed below.

The ongoing, post closure groundwater monitoring of the site makes use of a comprehensive groundwater monitoring array that was developed and constructed as part of the Remedial Investigation/Feasibility Study (RI/FS) effort performed at the site. The scope of the monitoring well array was formulated to document the stratigraphy of the site and to identify the presence and location of any leachate plume(s) that may exist at the site.

To date, the ongoing sampling of groundwater at the site has seen an overall improvement in groundwater quality, whether it be as a result of the capping of the landfill or the operation of the groundwater remediation system. This improvement has been reflected in the vast majority of the monitoring wells in the array having a concentration of total volatile organic compounds (VOCs) at or below 50 parts per billion (ppb). However, it is noted that even with the improvements realized, there are instances where the total VOCs are at or below 50 ppb but select compounds have concentrations which exceed the maximum contaminant limits (MCL) for Class GA groundwater.

The IRRA acknowledges that the ultimate goal of the remediation, as detailed in the Record of Decision (ROD), is to achieve Class GA standards through both active and passive efforts. In accordance with the ROD, active remediation (groundwater extraction, treatment and recharge) is intended to address the areas of the site that present total VOC concentrations at or above 50 ppb. Also, in keeping with the ROD, passive remediation through the vehicle of natural attenuation will provide the mechanism for attaining compliance with the Class GA standards for concentrations of total VOCs which are at or below 50 ppb.

In keeping with the goals of the ROD, the IRRA proposes the following steps to improve upon the database of information relative to the groundwater quality associated with the site:

- The IRRA rescinds its prior request to cease the operation of the extraction wells and the groundwater treatment facility. The operation of the facility will continue on the present 24 hour per day, 7 days per week basis. Extraction wells EW-1, EW-3, EW-4 and EW-5 will remain in full time operation. Extraction wells EW-2 and EW-6 will remain off-line and will be operated as necessary to exercise the equipment and to obtain representative groundwater samples.

  The IRRA will continue to operate the groundwater remediation facility for the foreseeable future but reserves its right to revisit the issue as conditions may warrant.

- The IRRA will revise the current sampling and analysis of the groundwater monitoring array to include the groundwater parameters identified by 6 NYCRR Part 360. The IRRA proposes to perform baseline sampling of the current monitoring well array as part of the ongoing semi-annual sampling program. Baseline parameters will be analyzed for each event (semi-annual) in lieu of performing quarterly sampling with three rounds of routine analysis and one round of baseline per year. Semi-annual sampling is currently scheduled for the first and third quarters of each calendar year. If necessary, the schedule for semi-annual sampling can be modified to rotate the sampling events through all four quarters of the year.

  A copy of the current sampling schedule is attached. The IRRA proposes to begin the revised sampling program with the third quarter sampling event for calendar year 2011. The IRRA proposes to perform a minimum of four rounds of semi-annual sampling to

develop a revised database with which to develop informed decisions regarding the need for revisions to the existing groundwater remediation system and/ or the scope of the groundwater monitoring program. If this revised sampling is acceptable, the SAP will be updated accordingly and resubmitted to your office.

- The IRRA proposes to modify one of the existing groundwater monitoring wells to serve as a temporary extraction well. This temporary extraction well will serve as a pilot to assess the prospect of establishing an additional extraction well(s). The proposed monitoring well for this test is GM-1D, which has shown an increasing trend in the concentrations of total VOCs while still being on the order of approximately 50 ppb. GM-1D is a 4 inch diameter well, approximately 400 feet deep and is screened in the Magothy formation, a deeper formation than the existing extraction wells.

The modification of the monitoring well will include the following:

- o modifications to the well head to receive a pump
- o installation of a pump, riser pipes, bubbler tube, chlorination tube and level sensing (low level shut off)
- o installation of an isolation valve, air release valve and flow meter, with chamber as necessary
- o connection to the existing force main that services extraction wells EW-3 and EW-4 in order to allow the pump to discharge to the treatment facility
- o installation of a motor starter in the treatment facility to service the well
- o installation of electric power and control conduit and wires from the treatment facility to the well in order to allow the well to be incorporated into the operation of the facility

The above modifications are intended to produce a pilot production well that is suitable for continuous, unattended operation in order to assess whether the perceived degree of contamination will persist under the dynamic conditions of production pumping. Clearly, there is concern that the concentrations of total VOCs which are exhibited in the groundwater monitoring purge and sample procedure may become more dilute under a continuous pumping scenario and make the well less viable. It is assumed that the well should be able to support a sustained yield of 15 to 20 gallons per minute. Sampling of the well will be performed every two months and analyzed for Part 360 baseline parameters to develop a database which can provide for informed decisions. The pilot program is proposed to be implemented for at least one year to assess the characteristics of the extracted water and determine whether a larger extraction well is viable or warranted.

The timetable for constructing the modifications to well GM-1D should place the well in operation by November 1, 2011 barring any unforeseen difficulties. Given the scope of this work, a design will need to be prepared and contractors secured through a competitive bidding process.

ISLIP RESOURCE RECOVERY AGENCY 401 MAIN STREET, ISLIP, NEW YORK 11751 (631) 224-5644

We believe that the above proposal should address many of your concerns and provide for additional information in assessing the status of the groundwater remediation program at the Blydenburgh Road Landfill.

We trust the enclosed is sufficient for your needs. Should you have any questions or comments regarding this matter, please feel free to contact this office.

Very truly yours,

Anthony Varrichio, P.E.
Chief Engineer

cc: M. Dannenberg (USEPA)
C. Andrade (IRRA)
R. Walka (D&B)
T. Fox (D&B)
E. Reilly (D&B)

ISLIP RESOURCE RECOVERY AGENCY 401 MAIN STREET, ISLIP, NEW YORK 11751 (631) 224-5844

BLYDENBURGH ROAD LANDFILL COMPLEX
SUMMARY OF GROUNDWATER MONITORING PROGRAM
CALENDAR YEAR 2011

Well Designation	*Sampled First Period*	*Sampled Second Period*
GM-1S		YES
GM-1I	YES	YES
GM-1D	YES	YES
GM-2S		YES
GM-2I		YES
GM-2D		YES
GM-3S	NS	NS
GM-3I	NS	NS
GM-3D	NS	NS
4G-1		YES
4G-2	YES	YES
4M-1	YES	YES
4M-2	YES	YES
5G-1	NS	NS
6G-1	YES	YES
6G-2	YES	YES
6G-3	YES	YES
6M-1		YES
7G-1	NS	NS
7M-1	YES	YES
8G-1	YES	YES
8M-1	YES	YES
8M-2	YES	YES
9G-1		YES
9M-1	NS	NS
10G-1		YES
10M-1	YES	YES
11G-1	YES	YES
11G-2	YES	YES
11M-1		YES
12G-1	NS	NS
12M-1	YES	YES
13G-1	YES	YES

ISLIP RESOURCE RECOVERY AGENCY 401 MAIN STREET, ISLIP, NEW YORK 11751 (631) 224-5644

BLYDENBURGH ROAD LANDFILL COMPLEX
SUMMARY OF GROUNDWATER MONITORING PROGRAM
CALENDAR YEAR 2011

13M-1	YES	YES
14G-1A	YES	YES
14G-1	NS	NS
14G-2	YES	YES
14M-1	YES	YES
15G-1		YES
15M-1	NS	NS

Well Designation	*Sampled First Period*	*Sampled Second Period*
16G-1		YES
16M-1	YES	YES
18G-1	YES	YES
18G-2	YES	YES
22M-1	YES	YES
23M-1	YES	YES
EW-1	YES	YES
EW-2	YES	YES
EW-3	YES	YES
EW-4	YES	YES
EW-5	YES	YES
EW-6	YES	YES

NS: Not sampled.

First Period is sampled in February and Second Period is sampled in August of each year.

APPENDIX B

GROUNDWATER TREATMENT SYSTEM ANALYTICAL RESULTS

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results are only for the samples and analytes requested.

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the tests requested.

Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected : 1/20/2016 10:37:00 AM
Received : 1/22/2016 2:46:00 PM 312332+312333
Collected By FR99

Lab No. : 1601F78-001
Client Sample ID: INFLUENT

Sample Information:
Type : Groundwater

Origin:

Analytical Method: SW6010C : Prep Method: SW3005A Prep Date: 1/25/2016 2:00:00 PM Analyst: CGZ

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	< 0.020		1	mg/L	01/29/2016 2:12 AM	Container-01 of 01
Manganese	0.39		1	mg/L	01/29/2016 2:12 AM	Container-01 of 01

Analytical Method: SW8260C : Prep Method: 5030C Analyst: BL

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	µg/L			01/28/2016 8:54 PM	Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L			01/28/2016 8:54 PM	Container-01 of 02
Benzene	< 0.70		1	µg/L			01/28/2016 8:54 PM	Container-01 of 02
cis-1,2-Dichloroethene	1.2		1	µg/L			01/28/2016 8:54 PM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L			01/28/2016 8:54 PM	Container-01 of 02
Toluene	< 1.0		1	µg/L			01/28/2016 8:54 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L			01/28/2016 8:54 PM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L			01/28/2016 8:54 PM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L			01/28/2016 8:54 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	115		1	%Rec	Limit	53-183	01/28/2016 8:54 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	113		1	%Rec	Limit	63-140	01/28/2016 8:54 PM	Container-01 of 02
Surr: Toluene-d8	112		1	%Rec	Limit	60-135	01/28/2016 8:54 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported : 2/2/2016

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected :1/20/2016 10:50:00 AM
Received :1/22/2016 2:46:00 PM 312341+312351
Collected By FR99

Lab No. : 1601F78-002
Client Sample ID: EFFLUENT

Sample Information:
Type : Groundwater

Origin:

Analytical Method: SW6010C			Prep Method: SW3005A		Prep Date: 1/25/2016 2:00:00 PM	Analyst: CGZ
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	< 0.020		1	mg/L	01/29/2016 2:18 AM	Container-01 of 01
Manganese	< 0.015		1	mg/L	01/29/2016 2:18 AM	Container-01 of 01

Analytical Method: SW8260C			Prep Method: 5030C			Analyst: BL
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	µg/L	01/28/2016 9:15 PM	Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L	01/28/2016 9:15 PM	Container-01 of 02
Benzene	< 0.70		1	µg/L	01/28/2016 9:15 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 1.0		1	µg/L	01/28/2016 9:15 PM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L	01/28/2016 9:15 PM	Container-01 of 02
Toluene	< 1.0		1	µg/L	01/28/2016 9:15 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L	01/28/2016 9:15 PM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L	01/28/2016 9:15 PM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L	01/28/2016 9:15 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	114		1	%Rec Limit 53-183	01/28/2016 9:15 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	108		1	%Rec Limit 63-140	01/28/2016 9:15 PM	Container-01 of 02
Surr: Toluene-d8	109		1	%Rec Limit 60-135	01/28/2016 9:15 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.
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r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 2/2/2016

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NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected : 2/23/2016 1:56:00 PM
Received : 2/29/2016 9:50:00 AM
Collected By FR99

Lab No. : 1602K48-001
Client Sample ID: INFLUENT

317424, 317437, 670148

Sample Information:
Type : Groundwater

Origin:

Analytical Method: SW6010C : Prep Method: SW3005A Prep Date: 3/3/2016 6:45:00 AM Analyst: CGZ

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	0.025		1	mg/L	03/10/2016 2:38 AM	Container-01 of 01
Manganese	0.42		1	mg/L	03/10/2016 2:38 AM	Container-01 of 01

Analytical Method: SW8260C . Prep Method: 5030C Analyst: BL

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	µg/L			03/02/2016 3:33 PM	Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L			03/02/2016 3:33 PM	Container-01 of 02
Benzene	< 0.70		1	µg/L			03/02/2016 3:33 PM	Container-01 of 02
cis-1,2-Dichloroethene	1.5		1	µg/L			03/02/2016 3:33 PM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L			03/02/2016 3:33 PM	Container-01 of 02
Toluene	< 1.0		1	µg/L			03/02/2016 3:33 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L			03/02/2016 3:33 PM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L			03/02/2016 3:33 PM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L			03/02/2016 3:33 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	90.9		1	%Rec	Limit	76-114	03/02/2016 3:33 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	88.1		1	%Rec	Limit	86-115	03/02/2016 3:33 PM	Container-01 of 02
Surr: Toluene-d8	90.2		1	%Rec	Limit	88-110	03/02/2016 3:33 PM	Container-01 of 02

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r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported : 3/11/2016

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

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Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected : 2/23/2016 2:13:00 PM
Received : 2/29/2016 9:50:00 AM
Collected By FR99

Lab No. : 1602K48-002
Client Sample ID: EFFLUENT

317442, 317443, 670178

Sample Information:
Type : Groundwater

Origin:

Analytical Method: SW6010C : Prep Method: SW3005A Prep Date: 3/3/2016 6:45:00 AM Analyst: CGZ

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	< 0.020		1	mg/L	03/10/2016 2:44 AM	Container-01 of 01
Manganese	0.021		1	mg/L	03/10/2016 2:44 AM	Container-01 of 01

Analytical Method: SW8260C : Prep Method: 5030C Analyst: BL

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	µg/L			03/02/2016 3:11 PM	Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L			03/02/2016 3:11 PM	Container-01 of 02
Benzene	< 0.70		1	µg/L			03/02/2016 3:11 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 1.0		1	µg/L			03/02/2016 3:11 PM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L			03/02/2016 3:11 PM	Container-01 of 02
Toluene	< 1.0		1	µg/L			03/02/2016 3:11 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L			03/02/2016 3:11 PM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L			03/02/2016 3:11 PM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L			03/02/2016 3:11 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	93.4		1	%Rec	Limit	76-114	03/02/2016 3:11 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	91.1		1	%Rec	Limit	86-115	03/02/2016 3:11 PM	Container-01 of 02
Surr: Toluene-d8	91.4		1	%Rec	Limit	88-110	03/02/2016 3:11 PM	Container-01 of 02

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Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 3/11/2016

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Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected :4/15/2016 10:50:00 AM
Received :4/18/2016 3:25:00 PM 318253+318254
Collected By FR99

Lab No. : 1604G38-001
Client Sample ID: INFLUENT

Sample Information:
Type : Groundwater

Origin:

Analytical Method: SW6010C : Prep Method: SW3005A Prep Date: 4/26/2016 6:30:00 AM Analyst: CGZ

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	0.020		1	mg/L	04/28/2016 9:51 PM	Container-01 of 01
Manganese	0.26		1	mg/L	04/28/2016 9:51 PM	Container-01 of 01

Analytical Method: SW8260C Prep Method: 5030C Analyst: BL

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
1,1,1-Trichloroethane	1.0		1	µg/L			04/21/2016 8:19 PM	Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L			04/21/2016 8:19 PM	Container-01 of 02
Benzene	< 0.70		1	µg/L			04/21/2016 8:19 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 1.0		1	µg/L			04/21/2016 8:19 PM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L			04/21/2016 8:19 PM	Container-01 of 02
Toluene	< 1.0		1	µg/L			04/21/2016 8:19 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L			04/21/2016 8:19 PM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L			04/21/2016 8:19 PM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L			04/21/2016 8:19 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	88.3		1	%Rec	Limit	53-183	04/21/2016 8:19 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	72.7		1	%Rec	Limit	63-140	04/21/2016 8:19 PM	Container-01 of 02
Surr: Toluene-d8	76.7		1	%Rec	Limit	60-135	04/21/2016 8:19 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
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P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
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+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 5/2/2016

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NYSDOH ID#10478 www.paclabs.com

LABORATORY RESULTS

Results are only for the samples and analytes requested.

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the tests requested.

Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected :4/15/2016 11:07:00 AM
Received :4/18/2016 3:25:00 PM 318255+318256
Collected By FR99

Lab No. : 1604G38-002
Client Sample ID: EFFLUENT

Sample Information:
Type : Groundwater

Origin:

Analytical Method: SW6010C : Prep Method: SW3005A Prep Date: 4/26/2016 6:30:00 AM Analyst: CGZ

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	< 0.020		1	mg/L	04/28/2016 9:57 PM	Container-01 of 01
Manganese	0.050		1	mg/L	04/28/2016 9:57 PM	Container-01 of 01

Analytical Method: SW8260C : Prep Method: 5030C Analyst: BL

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	µg/L			04/21/2016 8:40 PM	Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L			04/21/2016 8:40 PM	Container-01 of 02
Benzene	< 0.70		1	µg/L			04/21/2016 8:40 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 1.0		1	µg/L			04/21/2016 8:40 PM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L			04/21/2016 8:40 PM	Container-01 of 02
Toluene	< 1.0		1	µg/L			04/21/2016 8:40 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L			04/21/2016 8:40 PM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L			04/21/2016 8:40 PM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L			04/21/2016 8:40 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	87.3		1	%Rec	Limit	53-183	04/21/2016 8:40 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	73.0		1	%Rec	Limit	63-140	04/21/2016 8:40 PM	Container-01 of 02
Surr: Toluene-d8	75.1		1	%Rec	Limit	60-135	04/21/2016 8:40 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 5/2/2016

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results are only for the samples and analytes requested.

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the tests requested.

Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected :5/11/2016 9:25:00 AM
Received :5/13/2016 2:30:00 PM 314477+314484
Collected By FR99

Lab No. : 1605C64-001
Client Sample ID: INFLUENT

Sample Information:
Type : Groundwater

Origin:

Analytical Method: SW6010C			Prep Method: SW3005A		Prep Date: 5/16/2016 6:20:00 AM	Analyst: JA
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	0.032		1	mg/L	05/27/2016 12:50 PM	Container-01 of 01
Manganese	0.29		1	mg/L	05/27/2016 12:50 PM	Container-01 of 01

Analytical Method: SW8260C			Prep Method: 5030C			Analyst: BL
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
1,1,1-Trichloroethane	1.0		1	µg/L	05/14/2016 4:15 AM	Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L	05/14/2016 4:15 AM	Container-01 of 02
Benzene	< 0.70		1	µg/L	05/14/2016 4:15 AM	Container-01 of 02
cis-1,2-Dichloroethene	1.1		1	µg/L	05/14/2016 4:15 AM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L	05/14/2016 4:15 AM	Container-01 of 02
Toluene	< 1.0		1	µg/L	05/14/2016 4:15 AM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L	05/14/2016 4:15 AM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L	05/14/2016 4:15 AM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L	05/14/2016 4:15 AM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	100		1	%Rec	Limit 79-116 05/14/2016 4:15 AM	Container-01 of 02
Surr: 4-Bromofluorobenzene	97.0		1	%Rec	Limit 79-122 05/14/2016 4:15 AM	Container-01 of 02
Surr: Toluene-d8	99.2		1	%Rec	Limit 69-125 05/14/2016 4:15 AM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration.acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 5/31/2016

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results are only for the samples and analytes requested.

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the tests requested.

Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected :5/11/2016 9:35:00 AM
Received :5/13/2016 2:30:00 PM 314513+317464
Collected By FR99

Lab No. : 1605C64-002
Client Sample ID: EFFLUENT

Sample Information:
Type : Groundwater

Origin:

Analytical Method: SW6010C : Prep Method: SW3005A Prep Date: 5/16/2016 6:20:00 AM Analyst: JA

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Iron	< 0.020		1	mg/L			05/27/2016 1:13 PM	Container-01 of 01
Manganese	0.071		1	mg/L			05/27/2016 1:13 PM	Container-01 of 01

Analytical Method: SW6260C : Prep Method: 5030C Analyst: BL

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	µg/L			05/14/2016 4:37 AM	Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L			05/14/2016 4:37 AM	Container-01 of 02
Benzene	< 0.70		1	µg/L			05/14/2016 4:37 AM	Container-01 of 02
cis-1,2-Dichloroethene	< 1.0		1	µg/L			05/14/2016 4:37 AM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L			05/14/2016 4:37 AM	Container-01 of 02
Toluene	< 1.0		1	µg/L			05/14/2016 4:37 AM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L			05/14/2016 4:37 AM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L			05/14/2016 4:37 AM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L			05/14/2016 4:37 AM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	100		1	%Rec	Limit	79-116	05/14/2016 4:37 AM	Container-01 of 02
Surr: 4-Bromofluorobenzene	97.3		1	%Rec	Limit	79-122	05/14/2016 4:37 AM	Container-01 of 02
Surr: Toluene-d8	99.2		1	%Rec	Limit	69-125	05/14/2016 4:37 AM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 5/31/2016

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results are only for the samples and analytes requested.

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the tests requested.

Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected : 6/17/2016 11:18:00 AM
Received : 6/20/2016 2:40:00 PM 3896+3898
Collected By: FR99

Lab No. : 1606J81-001
Client Sample ID: INFLUENT

Sample Information:
Type : Groundwater

Origin:

Analytical Method: SW6010C : Prep Method: SW3005A Prep Date: 6/21/2016 10:00:00 AM Analyst: CGZ

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	0.046		1	mg/L	06/30/2016 1:59 AM	Container-01 of 01
Manganese	0.31		1	mg/L	06/30/2016 1:59 AM	Container-01 of 01

Analytical Method: SW8260C : Prep Method: 5030C Analyst: BL

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	µg/L			06/24/2016 12:20 AM	Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L			06/24/2016 12:20 AM	Container-01 of 02
Benzene	< 0.70		1	µg/L			06/24/2016 12:20 AM	Container-01 of 02
cis-1,2-Dichloroethene	< 1.0		1	µg/L			06/24/2016 12:20 AM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L			06/24/2016 12:20 AM	Container-01 of 02
Toluene	< 1.0		1	µg/L			06/24/2016 12:20 AM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L			06/24/2016 12:20 AM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L			06/24/2016 12:20 AM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L			06/24/2016 12:20 AM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	91.5		1	%Rec	Limit	79-116	06/24/2016 12:20 AM	Container-01 of 02
Surr: 4-Bromofluorobenzene	93.0		1	%Rec	Limit	79-122	06/24/2016 12:20 AM	Container-01 of 02
Surr: Toluene-d8	86.0		1	%Rec	Limit	69-125	06/24/2016 12:20 AM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Raceived/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 7/18/2016

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results are only for the samples and analytes requested.

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the tests requested.

Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected : 6/17/2016 11:25:00 AM
Received : 6/20/2016 2:40:00 PM 3899+3920
Collected By FR99

Lab No. : 1606J81-002
Client Sample ID: EFFLUENT

Sample Information:
Type : Groundwater
Origin:

Analytical Method: SW6010C : Prep Method: SW3005A Prep Date: 6/21/2016 10:00:00 AM Analyst: CGZ

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	< 0.020		1	mg/L	06/30/2016 2:05 AM	Container-01 of 01
Manganese	0.083		1	mg/L	06/30/2016 2:05 AM	Container-01 of 01

Analytical Method: SW8260C : Prep Method: 5030C Analyst: BL

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	µg/L			06/23/2016 11:59 PM	Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L			06/23/2016 11:59 PM	Container-01 of 02
Benzene	< 0.70		1	µg/L			06/23/2016 11:59 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 1.0		1	µg/L			06/23/2016 11:59 PM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L			06/23/2016 11:59 PM	Container-01 of 02
Toluene	< 1.0		1	µg/L			06/23/2016 11:59 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L			06/23/2016 11:59 PM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L			06/23/2016 11:59 PM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L			06/23/2016 11:59 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	89.2		1	%Rec	Limit	79-116	06/23/2016 11:59 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	93.1		1	%Rec	Limit	79-122	06/23/2016 11:59 PM	Container-01 of 02
Surr: Toluene-d8	86.8		1	%Rec	Limit	69-125	06/23/2016 11:59 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 7/18/2016

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results are only for the samples and analytes requested.

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the tests requested.

Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected :7/19/2016 1:58:00 PM
Received :7/20/2016 2:50:00 PM
Collected By FR99

Lab No. : 1607H00-001
Client Sample ID: INFLUENT
16-146000237+241

Sample Information:
Type : Groundwater
Origin:

Analytical Method: SW6010C : Prep Method: SW3005A Prep Date: 7/29/2016 12:00:00 PM Analyst: CGZ

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	0.043		1	mg/L	08/01/2016 11:41 PM	Container-01 of 01
Manganese	0.28		1	mg/L	08/01/2016 11:41 PM	Container-01 of 01

Analytical Method: SW8260C : Prep Method: 5030C Analyst: BL

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	µg/L			07/21/2016 7:25 PM	Container-01 of 02
1,1-Dichloroethane	< 1.0	cS	1	µg/L			07/21/2016 7:25 PM	Container-01 of 02
Benzene	< 0.70		1	µg/L			07/21/2016 7:25 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 1.0		1	µg/L			07/21/2016 7:25 PM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L			07/21/2016 7:25 PM	Container-01 of 02
Toluene	< 1.0		1	µg/L			07/21/2016 7:25 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L			07/21/2016 7:25 PM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L			07/21/2016 7:25 PM	Container-01 of 02
Vinyl chloride	< 1.0	c	1	µg/L			07/21/2016 7:25 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	86.2		1	%Rec	Limit	68-153	07/21/2016 7:25 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	81.0		1	%Rec	Limit	79-124	07/21/2016 7:25 PM	Container-01 of 02
Surr: Toluene-d8	75.3		1	%Rec	Limit	69-124	07/21/2016 7:25 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 8/9/2016

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results are only for the samples and analytes requested.

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the tests requested.

Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected : 7/19/2016 2:07:00 PM
Received : 7/20/2016 2:50:00 PM
Collected By FR99

Lab No. : 1607H00-002
Client Sample ID: EFFLUENT
16-146000232+257

Sample Information:
Type : Groundwater
Origin:

Analytical Method: SW6010C : Prep Method: SW3005A Prep Date: 7/29/2016 12:00:00 PM Analyst: CGZ

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	< 0.020		1	mg/L	08/02/2016 12:05 AM	Container-01 of 01
Manganese	< 0.015		1	mg/L	08/02/2016 12:05 AM	Container-01 of 01

Analytical Method: SW8260C : Prep Method: 5030C Analyst: BL

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	µg/L			07/21/2016 7:47 PM	Container-01 of 02
1,1-Dichloroethane	< 1.0	cS	1	µg/L			07/21/2016 7:47 PM	Container-01 of 02
Benzene	< 0.70		1	µg/L			07/21/2016 7:47 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 1.0		1	µg/L			07/21/2016 7:47 PM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L			07/21/2016 7:47 PM	Container-01 of 02
Toluene	< 1.0		1	µg/L			07/21/2016 7:47 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L			07/21/2016 7:47 PM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L			07/21/2016 7:47 PM	Container-01 of 02
Vinyl chloride	< 1.0	c	1	µg/L			07/21/2016 7:47 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	87.0		1	%Rec	Limit	68-153	07/21/2016 7:47 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	82.1		1	%Rec	Limit	79-124	07/21/2016 7:47 PM	Container-01 of 02
Surr: Toluene-d8	76.0		1	%Rec	Limit	69-124	07/21/2016 7:47 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 8/9/2016

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results are only for the samples and analytes requested.

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the tests requested.

Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected : 8/24/2016 2:57:00 AM
Received : 8/29/2016 2:45:00 PM
Collected By FR99

Lab No. : 1608Q80-001
Client Sample ID: INFLUENT
16-146000336+1208

Sample Information:
Type : Groundwater

Origin:

Analytical Method: SW6010C : Prep Method: SW3005A Prep Date: 9/8/2016 3:00:00 PM Analyst: CGZ

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	0.052		1	mg/L	09/09/2016 3:17 PM	Container-01 of 01
Manganese	0.33		1	mg/L	09/09/2016 3:17 PM	Container-01 of 01

Analytical Method: SW8260C : Prep Method: 5030C Analyst: BL

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
1,1,1-Trichloroethane	1.1		1	µg/L			09/07/2016 9:09 PM	Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L			09/07/2016 9:09 PM	Container-01 of 02
Benzene	< 0.70		1	µg/L			09/07/2016 9:09 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 1.0		1	µg/L			09/07/2016 9:09 PM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L			09/07/2016 9:09 PM	Container-01 of 02
Toluene	< 1.0		1	µg/L			09/07/2016 9:09 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L			09/07/2016 9:09 PM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L			09/07/2016 9:09 PM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L			09/07/2016 9:09 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	83.6		1	%Rec	Limit	79-116	09/07/2016 9:09 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	84.3		1	%Rec	Limit	79-122	09/07/2016 9:09 PM	Container-01 of 02
Surr: Toluene-d8	84.2		1	%Rec	Limit	69-125	09/07/2016 9:09 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 9/14/2016

Pace Analytical
575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results are only for the samples and analytes requested.

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Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected :8/24/2016 3:14:00 AM
Received :8/29/2016 2:45:00 PM
Collected By FR99

Lab No. : 1608Q80-002
Client Sample ID: EFFLUENT
16-146000299+323

Sample Information:
Type : Groundwater
Origin:

Analytical Method: SW6010C : Prep Method: SW3005A Prep Date: 9/8/2016 3:00:00 PM Analyst: CGZ

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
Iron	< 0.020		1	mg/L			09/09/2016 3:23 PM	Container-01 of 01
Manganese	0.021		1	mg/L			09/09/2016 3:23 PM	Container-01 of 01

Analytical Method: SW8260C : Prep Method: 5030C Analyst: BL

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	µg/L			09/07/2016 8:48 PM	Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L			09/07/2016 8:48 PM	Container-01 of 02
Benzene	< 0.70		1	µg/L			09/07/2016 8:48 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 1.0		1	µg/L			09/07/2016 8:48 PM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L			09/07/2016 8:48 PM	Container-01 of 02
Toluene	< 1.0		1	µg/L			09/07/2016 8:48 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L			09/07/2016 8:48 PM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L			09/07/2016 8:48 PM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L			09/07/2016 8:48 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	82.2		1	%Rec	Limit	79-116	09/07/2016 8:48 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	83.2		1	%Rec	Limit	79-122	09/07/2016 8:48 PM	Container-01 of 02
Surr: Toluene-d8	83.6		1	%Rec	Limit	69-125	09/07/2016 8:48 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 9/14/2016

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NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

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Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected :9/19/2016 11:37:00 AM
Received :9/23/2016 3:00:00 PM 309069+309057
Collected By FR99

Lab No. : 1609L14-001
Client Sample ID: INFLUENT

Sample Information:
Type : Groundwater

Origin:

Analytical Method: SW6010C : Prep Method: SW3005A Prep Date: 10/4/2016 11:00.18 AM Analyst: CGZ

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	0.024		1	mg/L	10/05/2016 2:16 AM	Container-01 of 01
Manganese	0.27		1	mg/L	10/05/2016 2:16 AM	Container-01 of 01

Analytical Method: SW8260C : Prep Method: 5030C Analyst: BL

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
1,1,1-Trichloroethane	1.4		1	µg/L			09/28/2016 9:22 PM	Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L			09/28/2016 9:22 PM	Container-01 of 02
Benzene	< 0.70		1	µg/L			09/28/2016 9:22 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 1.0		1	µg/L			09/28/2016 9:22 PM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L			09/28/2016 9:22 PM	Container-01 of 02
Toluene	< 1.0		1	µg/L			09/28/2016 9:22 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L			09/28/2016 9:22 PM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L			09/28/2016 9:22 PM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L			09/28/2016 9:22 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	83.1		1	%Rec	Limit	79-116	09/28/2016 9:22 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	87.6		1	%Rec	Limit	79-122	09/28/2016 9:22 PM	Container-01 of 02
Surr: Toluene-d8	83.6		1	%Rec	Limit	69-125	09/28/2016 9:22 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.
B = Found in Blank
D.F. = Dilution Factor D = Results for Dilution
c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
J = Estimated value - below calibration range
M-, M+ = Matrix Spike recovery below / above control limit
N = Indicates presumptive evidence of compound
P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 10/19/2016

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NYSDOH ID#10478 www.pacelabs.com

LABORATORY RESULTS

Results are only for the samples and analytes requested.

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Islip Resource Recovery (IRR)
401 Main St.
Islip, NY 11751
Attn To : Anthony J. Varrichio
Collected :9/19/2016 12:01:00 PM
Received :9/23/2016 3:00:00 PM 309076+309077
Collected By FR99

Lab No. : 1609L14-002
Client Sample ID: EFFLUENT

Sample Information:
Type : Groundwater

Origin:

Analytical Method: SW6010C : Prep Method: SW3005A Prep Date: 10/4/2016 11:00:18 AM Analyst: CGZ

Paremeter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Iron	< 0.020		1	mg/L	10/05/2016 2:21 AM	Container-01 of 01
Manganese	0.027		1	mg/L	10/05/2016 2:21 AM	Container-01 of 01

Analytical Method: SW8260C : Prep Method: 5030C Analyst: BL

Parameter(s)	Results	Qualifier	D.F.	Units			Analyzed:	Container:
1,1,1-Trichloroethane	< 1.0		1	µg/L			09/28/2016 8:59 PM	Container-01 of 02
1,1-Dichloroethane	< 1.0		1	µg/L			09/28/2016 8:59 PM	Container-01 of 02
Benzene	< 0.70		1	µg/L			09/28/2016 8:59 PM	Container-01 of 02
cis-1,2-Dichloroethene	< 1.0		1	µg/L			09/28/2016 8:59 PM	Container-01 of 02
Tetrachloroethene	< 1.0		1	µg/L			09/28/2016 8:59 PM	Container-01 of 02
Toluene	< 1.0		1	µg/L			09/28/2016 8:59 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 1.0		1	µg/L			09/28/2016 8:59 PM	Container-01 of 02
Trichloroethene	< 1.0		1	µg/L			09/28/2016 8:59 PM	Container-01 of 02
Vinyl chloride	< 1.0		1	µg/L			09/28/2016 8:59 PM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	83.9		1	%Rec	Limit	79-116	09/28/2016 8:59 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	87.7		1	%Rec	Limit	79-122	09/28/2016 8:59 PM	Container-01 of 02
Surr: Toluene-d8	85.9		1	%Rec	Limit	69-125	09/28/2016 8:59 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.
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c = Calibration acceptability criteria exceeded for this analyte.Value estimated
H = Received/analyzed outside of analytical holding time
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P = Duplicate RPD outside of control limit
r = Reporting limit below calibration range. Value estimated.
S = Recovery outside of control limits for this analyte
+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Client Services Manager : Jennifer Aracri

Test results meet the requirements of NELAC unless otherwise noted.

Date Reported : 10/19/2016

Client Project: Monthly INF/EFF
Pace Project Nbr:702791
Sample:INFLUENT
Lab Id:702791001

Project Status: Complete
Matrix: Water
Collected Date:10/19/2016
Received Date:10/24/2016

Methods

Analysis	EPA 6010C	Complete
Method Desc	EPA 8260C/5030C	Complete
Status		

Query by Method

Show Hits Only

Result List

RL=Report Limit, MDL=Method Detection Limit, DF=Dilution Factor, Bas=Basis, Qual=Qualifiers

Method Desc	Parameters	Result	Units	RL	MDL	DF	Analyzed Date	Bas	Qual
EPA 6010C	Iron	<100	ug/L	100	48.2	1	11/16/2016 17:20	NA	
EPA 6010C	Manganese	271	ug/L	10.0	2.4	1	11/16/2016 17:20	NA	
EPA 8260C/5030C	Tetrachloroethene	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:30	NA	
EPA 8260C/5030C	1,1-Dichloroethane	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:30	NA	
EPA 8260C/5030C	trans-1,2-Dichloroethene	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:30	NA	
EPA 8260C/5030C	Vinyl chloride	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:30	NA	
EPA 8260C/5030C	1,1,1-Trichloroethane	1.5	ug/L	1.0	0.50	1	10/26/2016 21:30	NA	
EPA 8260C/5030C	cis-1,2-Dichloroethene	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:30	NA	
EPA 8260C/5030C	Trichloroethene	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:30	NA	
EPA 8260C/5030C	Toluene	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:30	NA	
EPA 8260C/5030C	Benzene	<0.70	ug/L	0.70	0.50	1	10/26/2016 21:30	NA	

Comment List

No Results Found

Home > Results > Project Information > Project 702791 > Sample 702791002

Client Project: Monthly INF/EFF
Pace Project Nbr:702791
Sample:EFFLUENT
Lab Id:702791002

Project Status: Complete
Matrix: Water
Collected Date:10/19/2016
Received Date:10/24/2016

Methods

Analysis	Method Desc	Status
6010 MET ICP	EPA 6010C	Complete
8260C Volatile Organics	EPA 8260C/5030C	Complete

Query by Method

Show Hits Only

Result List

RL=Report Limit, MDL=Method Detection Limit, DF=Dilution Factor, Bas=Basis, Qual=Qualifiers

Method Desc	Parameters	Result	Units	RL	MDL	DF	Analyzed Date	Bas	Qual
EPA 6010C	Iron	<100	ug/L	100	48.2	1	11/16/2016 17:25	NA	
EPA 6010C	Manganese	16.3	ug/L	10.0	2.4	1	11/16/2016 17:25	NA	
EPA 8260C/5030C	Benzene	<0.70	ug/L	0.70	0.50	1	10/26/2016 21:12	NA	
EPA 8260C/5030C	cis-1,2-Dichloroethene	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:12	NA	
EPA 8260C/5030C	trans-1,2-Dichloroethene	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:12	NA	
EPA 8260C/5030C	1,1-Dichloroethane	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:12	NA	
EPA 8260C/5030C	Toluene	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:12	NA	
EPA 8260C/5030C	Trichloroethene	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:12	NA	
EPA 8260C/5030C	Vinyl chloride	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:12	NA	
EPA 8260C/5030C	Tetrachloroethene	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:12	NA	
EPA 8260C/5030C	1,1,1-Trichloroethane	<1.0	ug/L	1.0	0.50	1	10/26/2016 21:12	NA	

Comment List

No Results Found

Home > Results > Project Information > Project 705440 > Sample 705440001

Client Project: Blydenburgh Influent/Effluent
Pace Project Nbr: 705440
Sample: INFLUENT
Lab Id: 705440001

Project Status: Complete
Matrix: Water
Collected Date: 11/18/2016
Received Date: 11/21/2016

Methods

Analysis	Method	Status
6010 MET ICP	EPA 6010C	Complete
8260 Volatile Organics	EPA 8260C/5030C	Complete

Query by Method

Show Hits Only

Result List

RL=Report Limit, MDL=Method Detection Limit, DF=Dilution Factor, Bas=Basis, Qual=Qualifiers

Method Desc	Parameters	Results	Units	RL	MDL	DF	Analyzed Date	Bas	Qual
EPA 6010C	Iron	<100	ug/L	100	48.2	1	12/24/2016 01:05	NA	
EPA 6010C	Manganese	269	ug/L	10.0	2.4	1	12/24/2016 01:05	NA	
EPA 8260C/5030C	Tetrachloroethene	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:36	NA	
EPA 8260C/5030C	1,1-Dichloroethane	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:36	NA	
EPA 8260C/5030C	cis-1,2-Dichloroethene	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:36	NA	
EPA 8260C/5030C	Trichloroethene	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:36	NA	
EPA 8260C/5030C	Benzene	ND	ug/L	1.0	0.50	1	11/29/2016 14:36	NA	
EPA 8260C/5030C	trans-1,2-Dichloroethene	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:36	NA	
EPA 8260C/5030C	Toluene	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:36	NA	
EPA 8260C/5030C	1,1,1-Trichloroethane	1.5	ug/L	1.0	0.50	1	11/29/2016 14:36	NA	
EPA 8260C/5030C	Vinyl chloride	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:36	NA	

Comment List

No Results Found

Home > Results > Project Information > Project 705440 > Sample 705440002

Client Project: Blydenburgh Influent/Effluent
Pace Project Nbr:705440
Sample:EFFLUENT
Lab Id:705440002

Project Status: Complete
Matrix: Water
Collected Date:11/18/2016
Received Date:11/21/2016

Methods

Analysis	Method	Status
6010 MET ICP	EPA 6010C	Complete
8260C Volatile Organics	EPA 8260C/5030C	Complete

Query by Method

Show Hits Only

Result List

RL=Report Limit, MDL=Method Detection Limit, DF=Dilution Factor, Bas=Basis, Qual=Qualifiers

Method Desc	Parameters	Results	Units	RL	MDL	DF	Analyzed Date	Qual
EPA 6010C	Iron	<100	ug/L	100	48.2	1	12/24/2016 01:40	NA
EPA 6010C	Manganese	<10.0	ug/L	10.0	2.4	1	12/24/2016 01:40	NA
EPA 8260C/5030C	1,1-Dichloroethane	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:54	NA
EPA 8260C/5030C	Trichloroethene	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:54	NA
EPA 8260C/5030C	cis-1,2-Dichloroethene	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:54	NA
EPA 8260C/5030C	Tetrachloroethene	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:54	NA
EPA 8260C/5030C	Benzene	ND	ug/L	1.0	0.50	1	11/29/2016 14:54	NA
EPA 8260C/5030C	1,1,1-Trichloroethane	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:54	NA
EPA 8260C/5030C	Toluene	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:54	NA
EPA 8260C/5030C	Vinyl chloride	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:54	NA
EPA 8260C/5030C	trans-1,2-Dichloroethene	<1.0	ug/L	1.0	0.50	1	11/29/2016 14:54	NA

Comment List

No Results Found

Home > Results > Project Information > Project 707073 > Sample 707073001

Client Project:BLYDENBURGH - INF/EFF
Pace Project Nbr:707073
Sample:INFLUENT
Lab Id:707073001

Project Status: Complete
Matrix: Water
Collected Date:12/12/2016
Received Date:12/16/2016

Methods

Analysis	Method	Status
6010 MET ICP	EPA 6010C	Complete
8260C Volatile Organics	EPA 8260C/5030C	Complete

Query by Method

Show Hits Only

Result List

RL=Report Limit, MDL=Method Detection Limit, DF=Dilution Factor, Bas=Basis, Qual=Qualifiers

Method Desc	Parameters	Results	Units	RL	MDL	DF	Analyzed Date	Bas	Qual
EPA 6010C	Iron	<100	ug/L	100	48.2	1	01/05/2017 02:47	NA	
EPA 6010C	Manganese	161	ug/L	10.0	2.4	1	01/05/2017 02:47	NA	
EPA 8260C/5030C	1,1-Dichloroethane	<1.0	ug/L	1.0	0.50	1	12/19/2016 16:15	NA	
EPA 8260C/5030C	Benzene	<0.70	ug/L	0.70	0.50	1	12/19/2016 16:15	NA	
EPA 8260C/5030C	Trichloroethene	<1.0	ug/L	1.0	0.50	1	12/19/2016 16:15	NA	
EPA 8260C/5030C	Tetrachloroethene	<1.0	ug/L	1.0	0.50	1	12/19/2016 16:15	NA	
EPA 8260C/5030C	Vinyl chloride	<1.0	ug/L	1.0	0.50	1	12/19/2016 16:15	NA	
EPA 8260C/5030C	cis-1,2-Dichloroethene	<1.0	ug/L	1.0	0.50	1	12/19/2016 16:15	NA	
EPA 8260C/5030C	1,1,1-Trichloroethane	1.4	ug/L	1.0	0.50	1	12/19/2016 16:15	NA	
EPA 8260C/5030C	Toluene	<1.0	ug/L	1.0	0.50	1	12/19/2016 16:15	NA	
EPA 8260C/5030C	trans-1,2-Dichloroethene	<1.0	ug/L	1.0	0.50	1	12/19/2016 16:15	NA	

Comment List

No Results Found

Home > Results > Project Information > Project 707073 > Sample 707073002

Client Project:BLYDENBURGH - INF/EFF
Pace Project Nbr:707073
Sample:EFFLUENT
Lab Id:707073002

Project Status: Complete
Matrix: Water
Collected Date:12/12/2016
Received Date:12/16/2016

Methods

Analysis	Method	Status
6010 MET ICP	EPA 6010C	Complete
8260C Volatile Organics	EPA 8260C/5030C	Complete

Query by Method

Show Hits Only

Result List

RL=Report Limit, MDL=Method Detection Limit, DF=Dilution Factor, Bas=Basis, Qual=Qualifiers

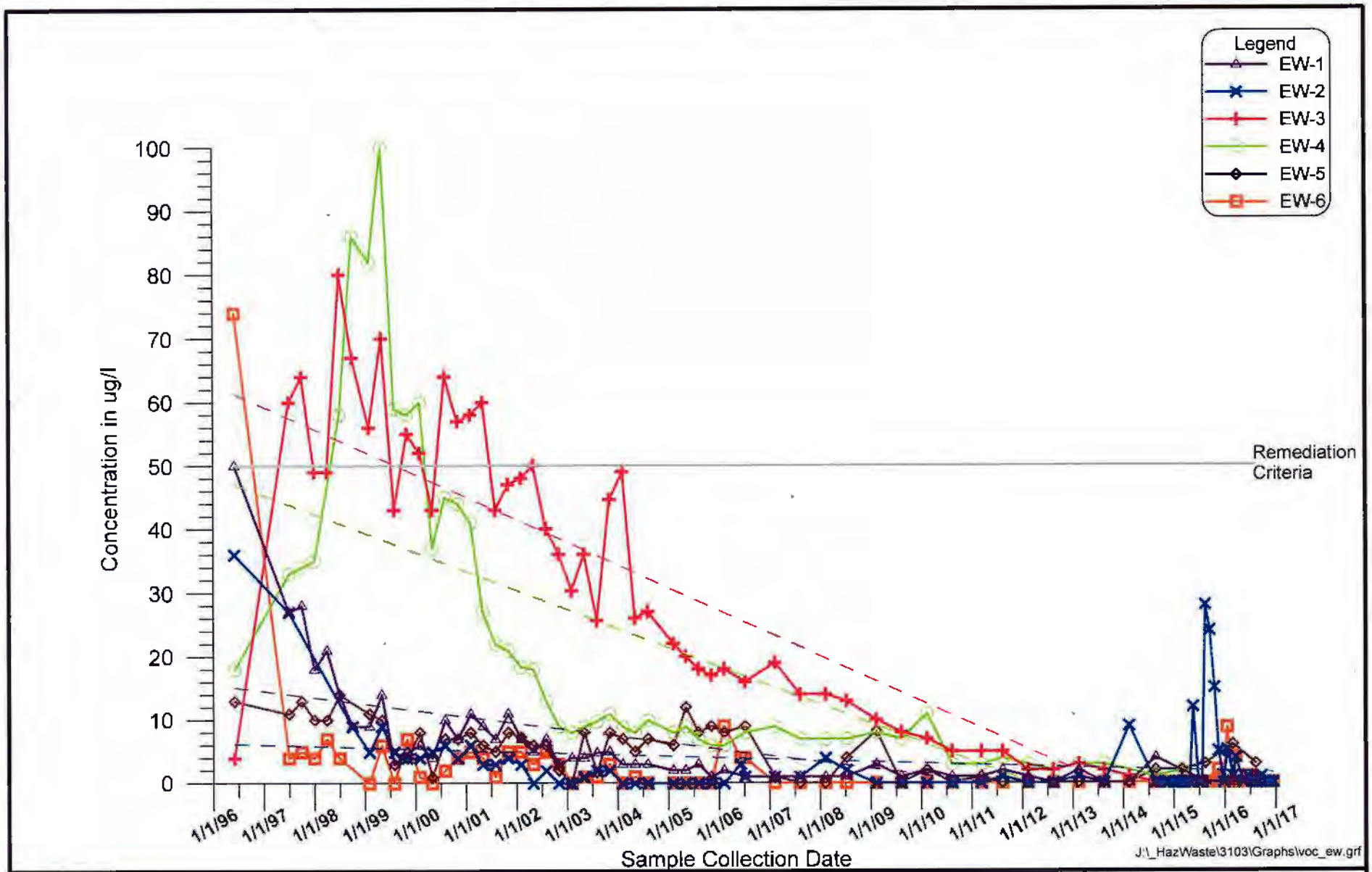
Method Desc	Parameters	Results	Units	RL	MDL	DF	Analyzed Date	Bas	Qual
EPA 6010C	Iron	<100	ug/L	100	48.2	1	01/05/2017 03:22	NA	
EPA 6010C	Manganese	12.5	ug/L	10.0	2.4	1	01/05/2017 03:22	NA	
EPA 8260C/5030C	Vinyl chloride	<1.0	ug/L	1.0	0.50	1	12/19/2016 15:57	NA	
EPA 8260C/5030C	1,1-Dichloroethane	<1.0	ug/L	1.0	0.50	1	12/19/2016 15:57	NA	
EPA 8260C/5030C	Tetrachloroethene	<1.0	ug/L	1.0	0.50	1	12/19/2016 15:57	NA	
EPA 8260C/5030C	1,1,1-Trichloroethane	<1.0	ug/L	1.0	0.50	1	12/19/2016 15:57	NA	
EPA 8260C/5030C	Benzene	<0.70	ug/L	0.70	0.50	1	12/19/2016 15:57	NA	
EPA 8260C/5030C	trans-1,2-Dichloroethene	<1.0	ug/L	1.0	0.50	1	12/19/2016 15:57	NA	
EPA 8260C/5030C	Toluene	<1.0	ug/L	1.0	0.50	1	12/19/2016 15:57	NA	
EPA 8260C/5030C	Trichloroethene	<1.0	ug/L	1.0	0.50	1	12/19/2016 15:57	NA	
EPA 8260C/5030C	cis-1,2-Dichloroethene	<1.0	ug/L	1.0	0.50	1	12/19/2016 15:57	NA	

Comment List

No results Found

APPENDIX C

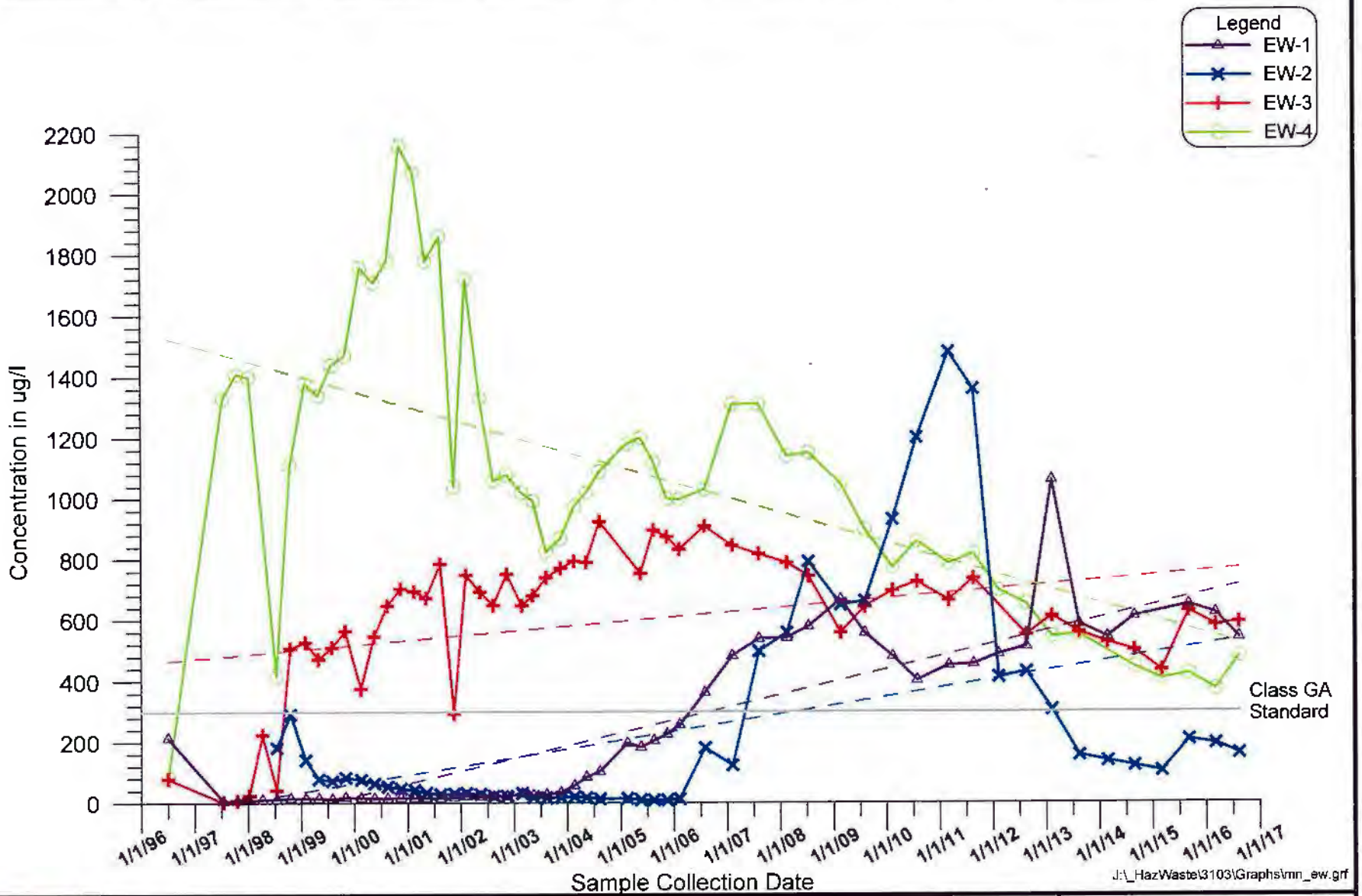
HISTORICAL GRAPHS



D&B ENGINEERS AND ARCHITECTS, P.C.

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

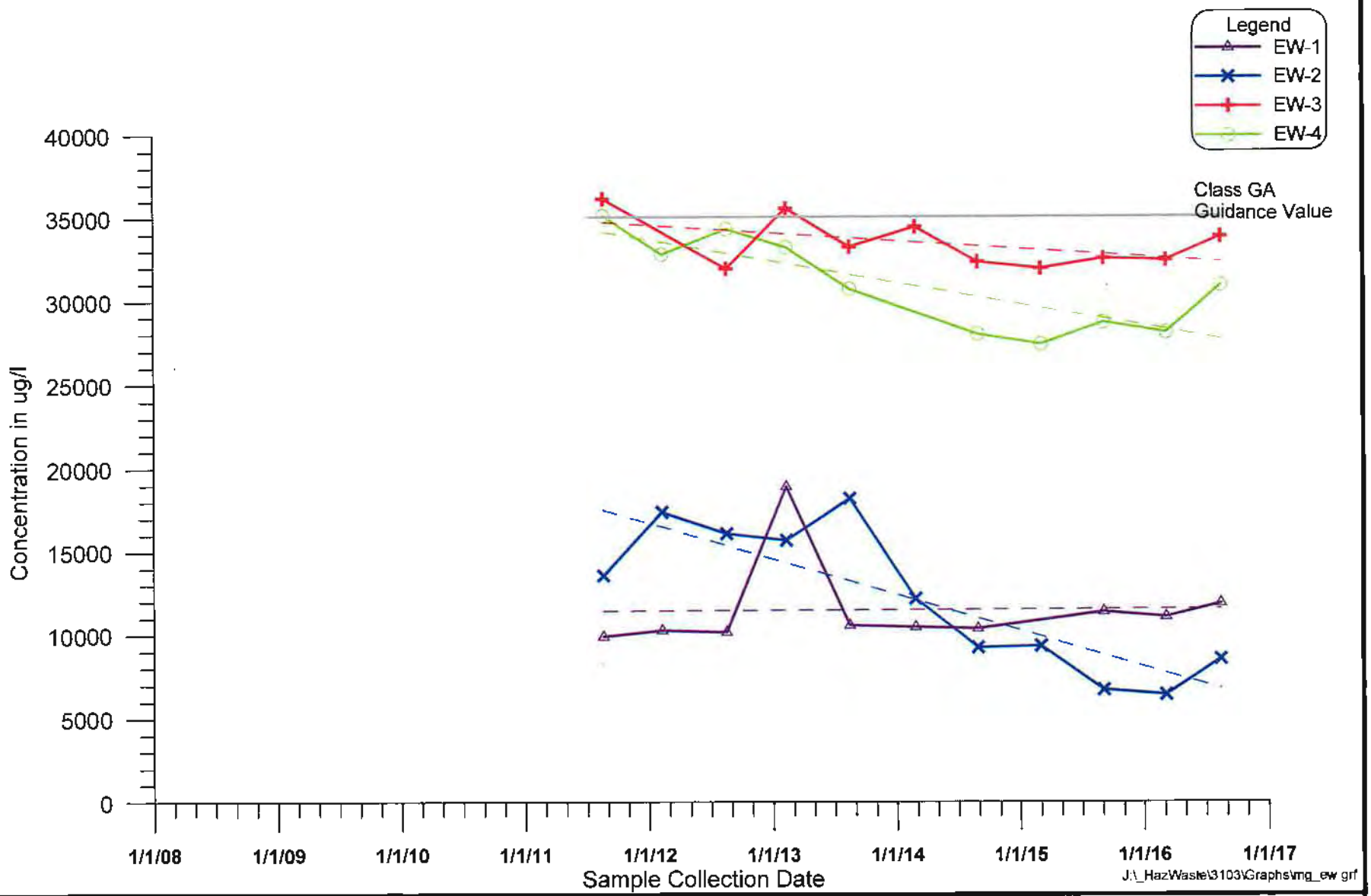
Appendix C



D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Manganese Data for Selected Extraction Wells

Appendix C



D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Magnesium Data for Selected Extraction Wells

Appendix
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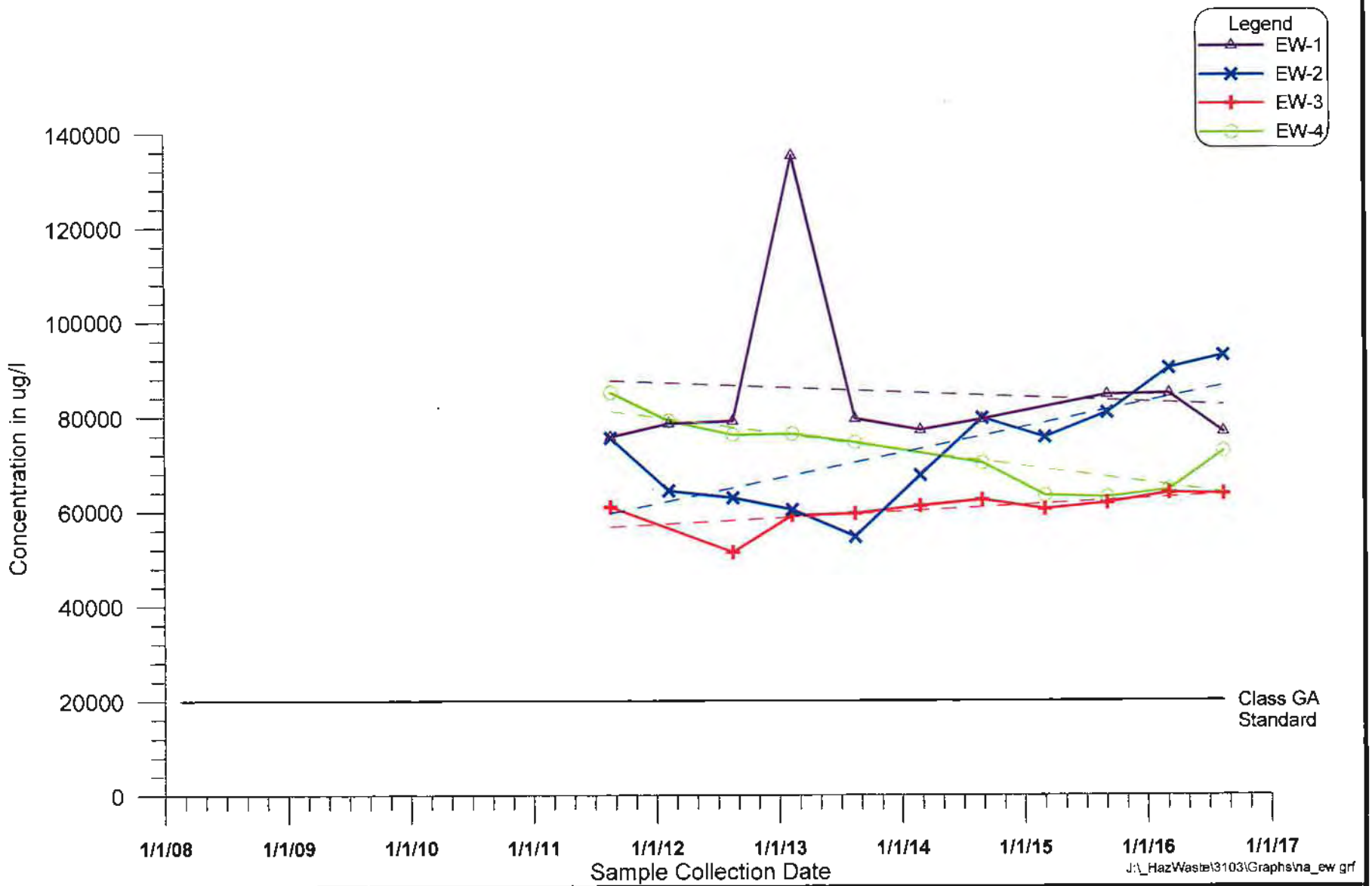

D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Sodium Data for Selected Extraction Wells

Appendix
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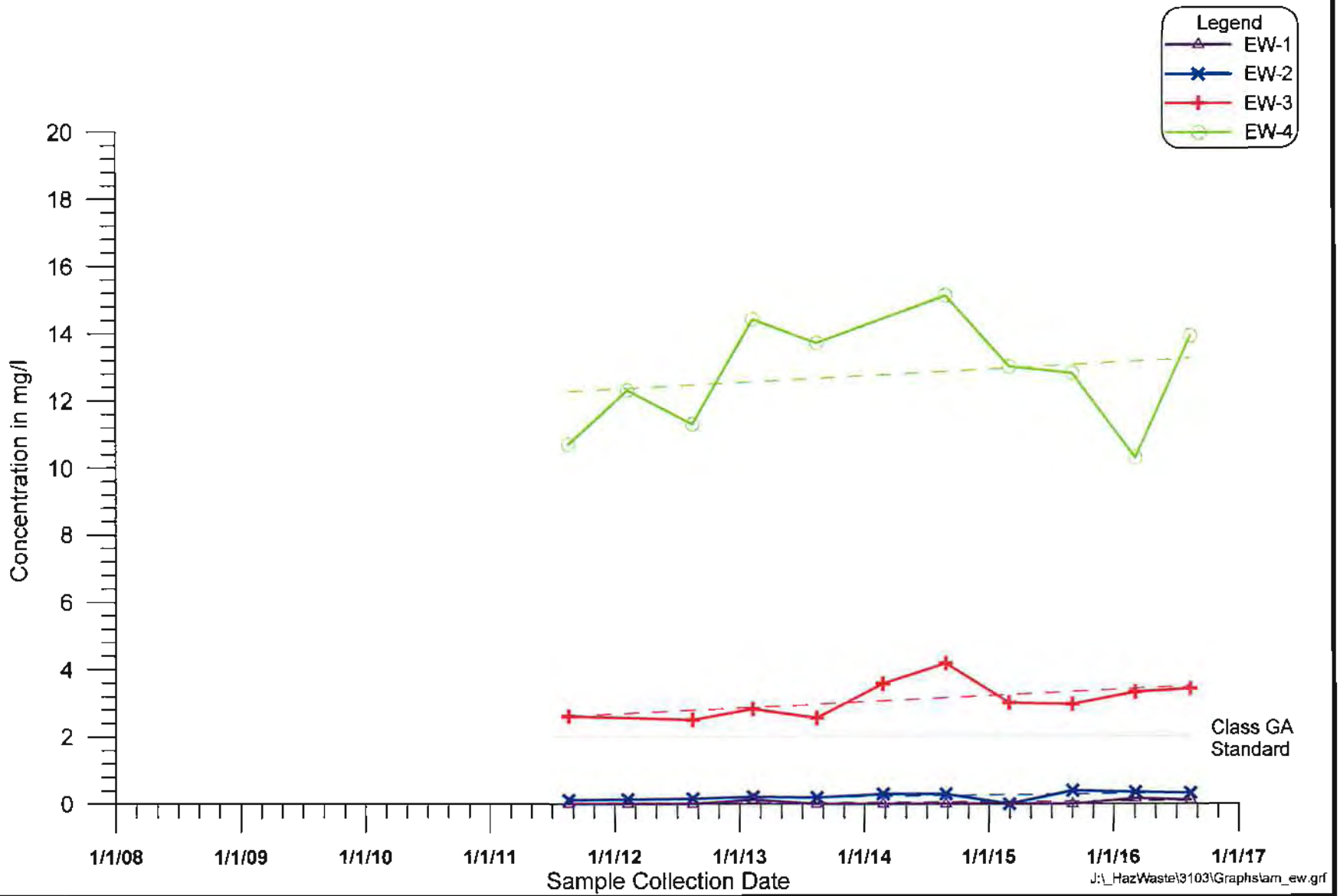

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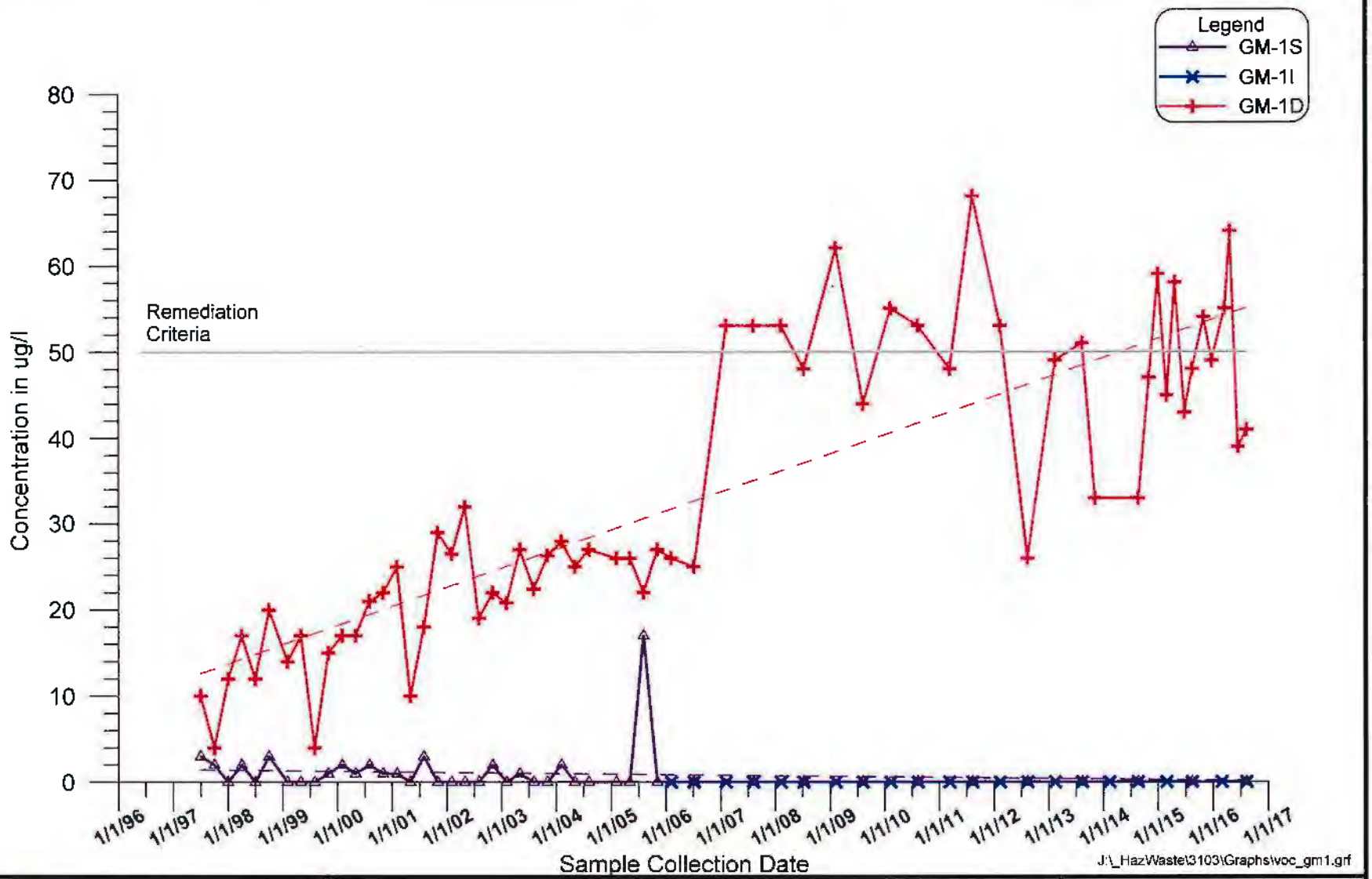
Blydenburgh Road Landfill Complex
Historical Ammonia Data for Select Extraction Wells

Appendix C



D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Monitoring Well Cluster GM-1

Appendix
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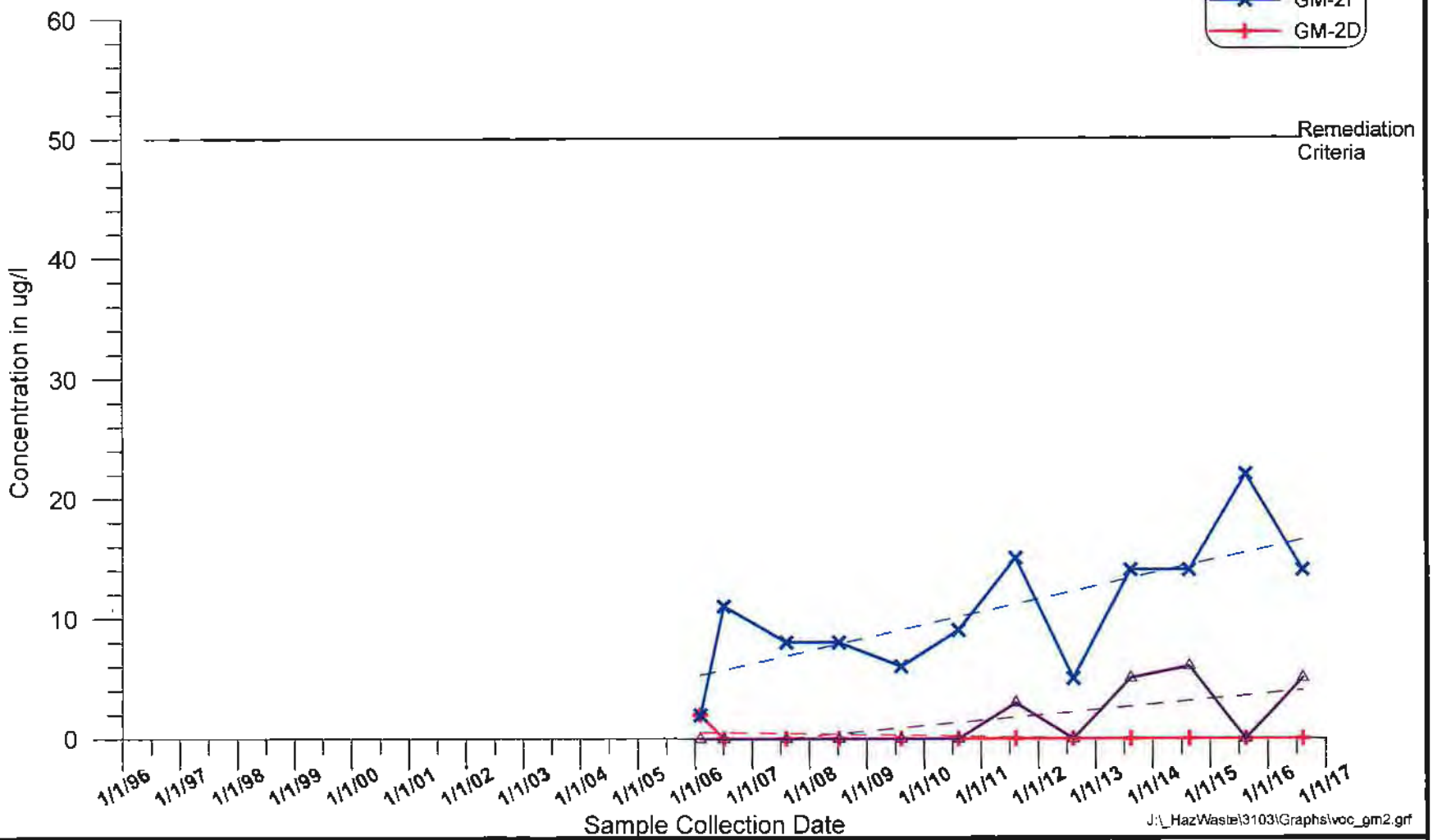

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Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Monitoring Well Cluster GM-2

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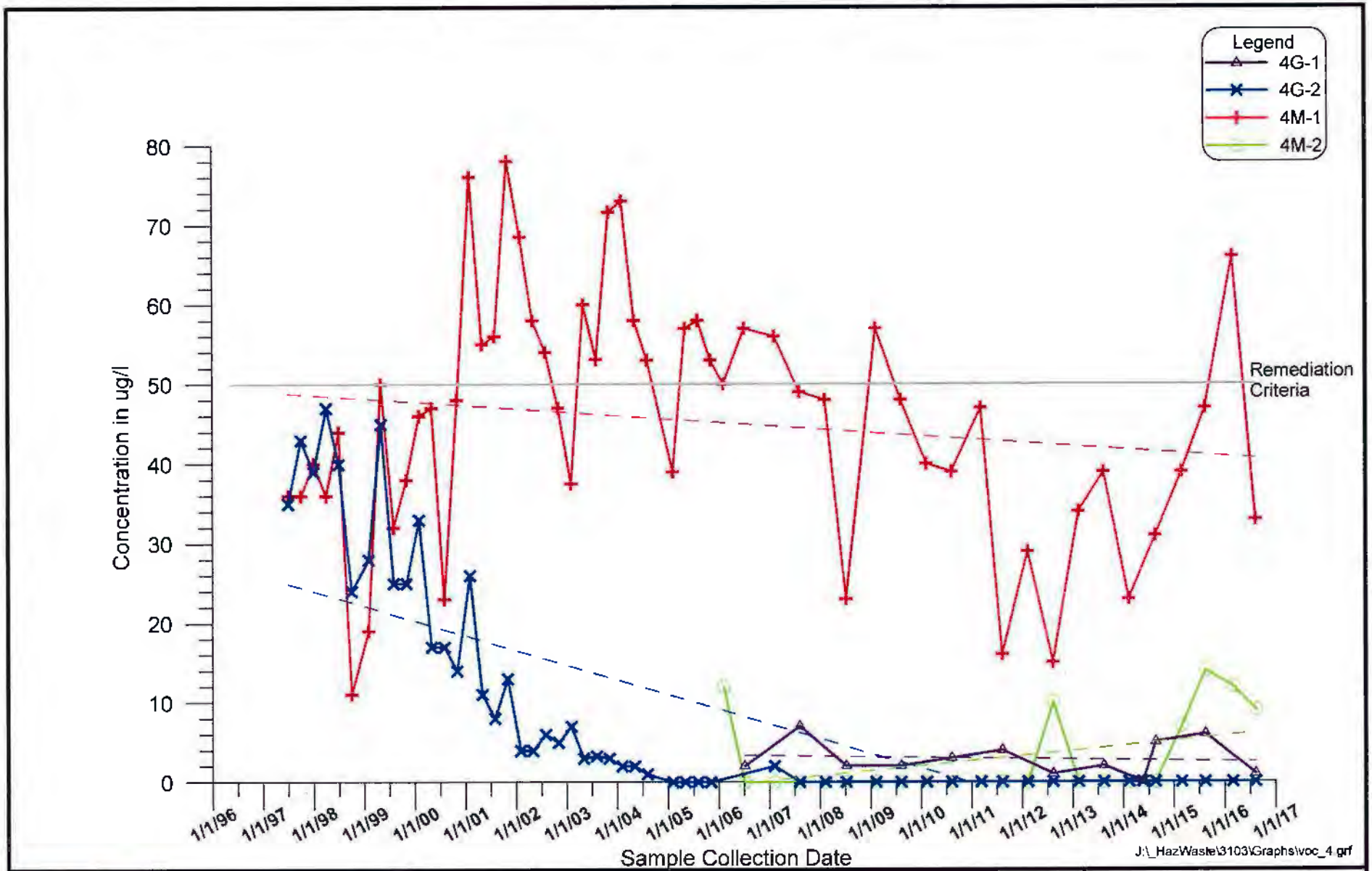

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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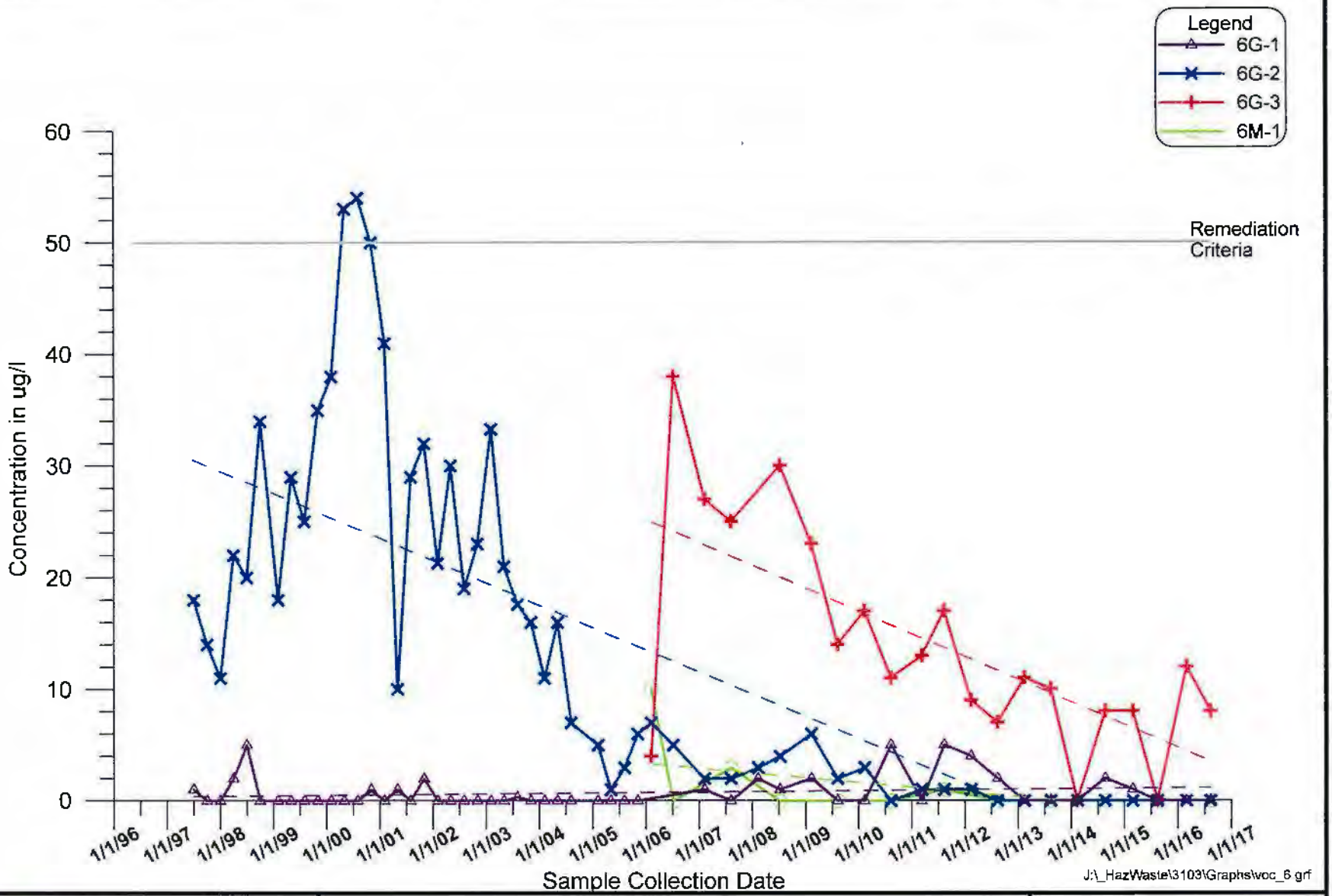

D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Monitoring Well Cluster 6

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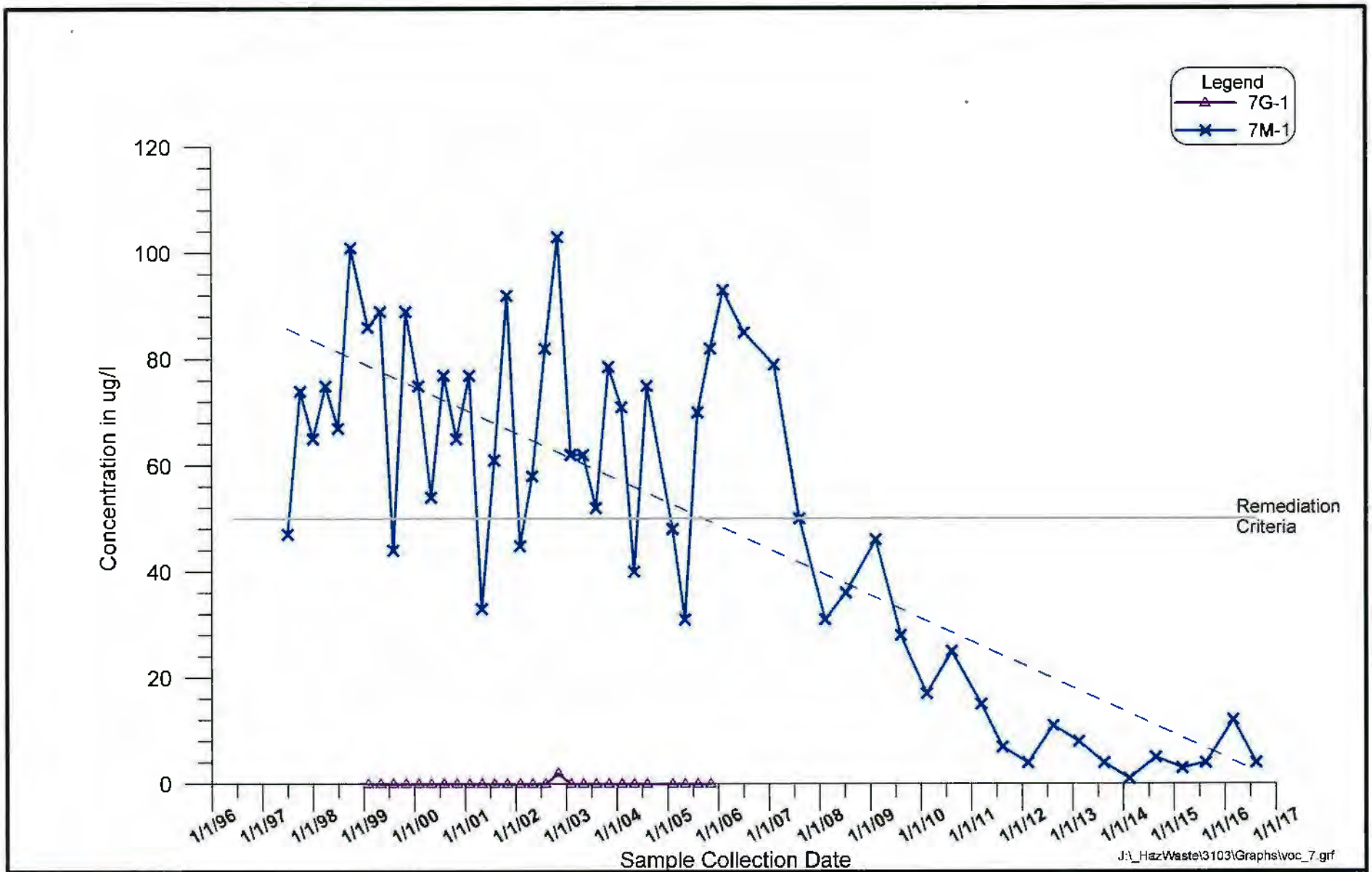

D&B Engineers and Architects, P.C.

Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Monitoring Well Cluster 7

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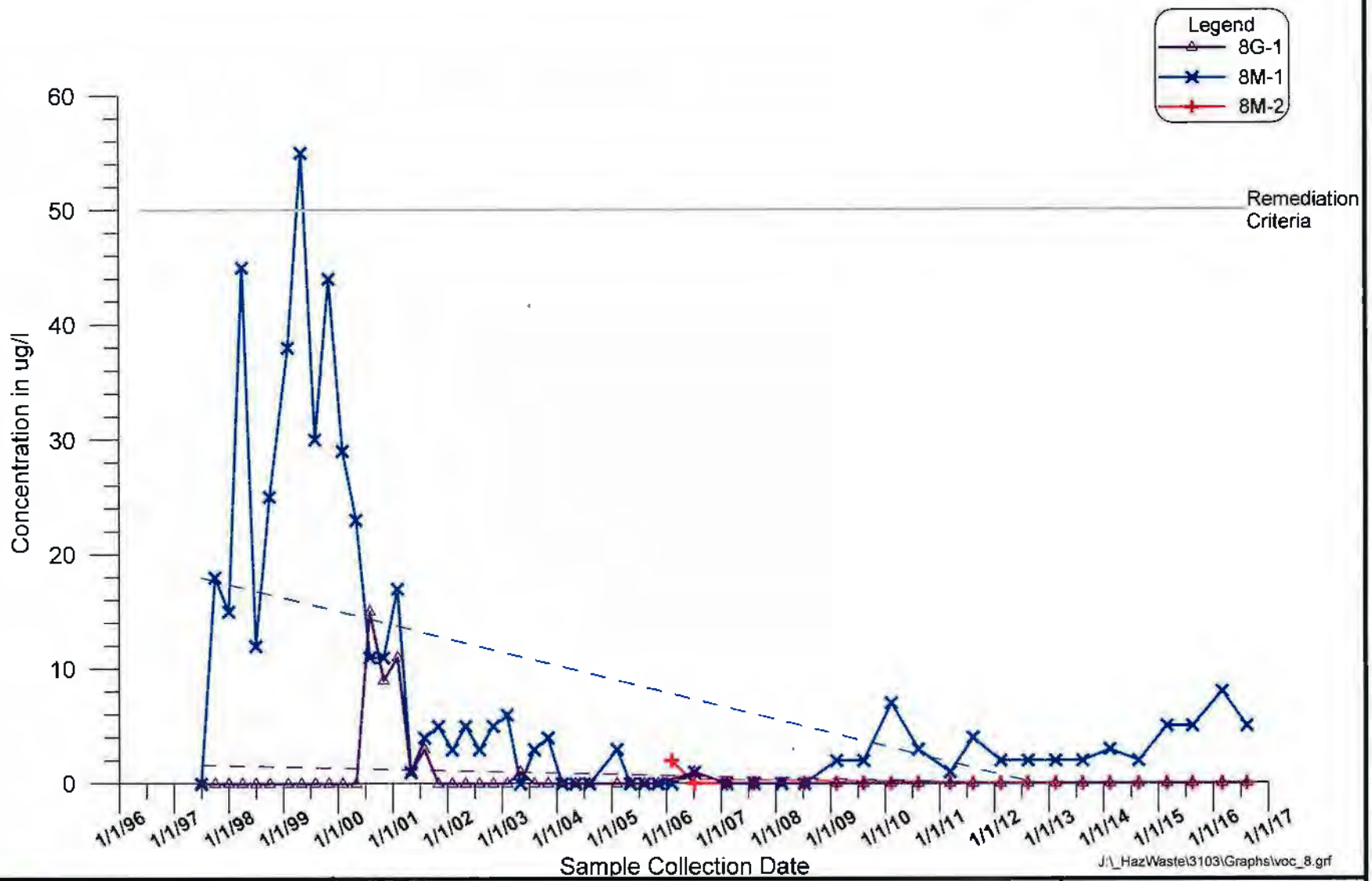

D&B Engineers and Architects, P.C.

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

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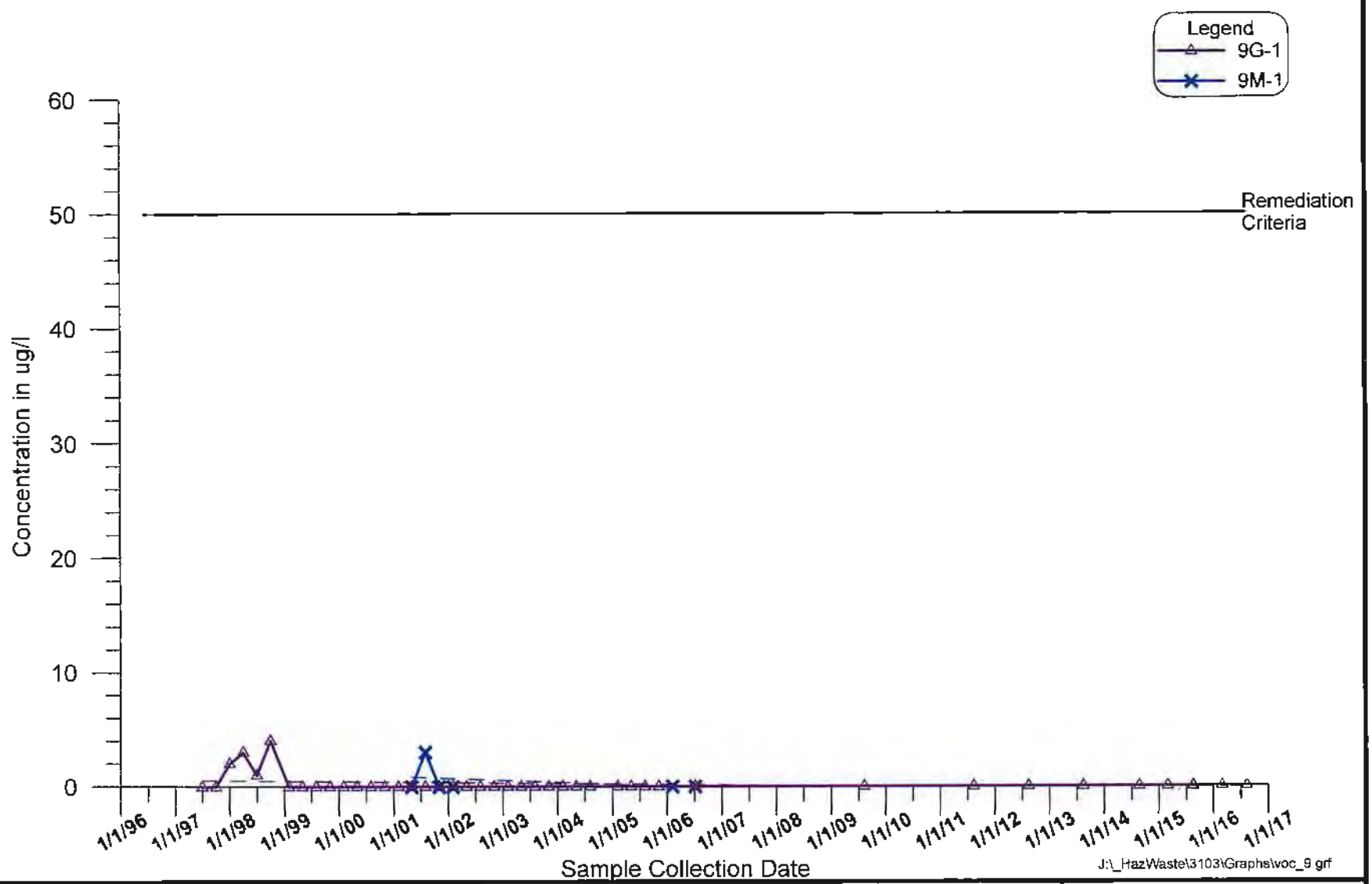

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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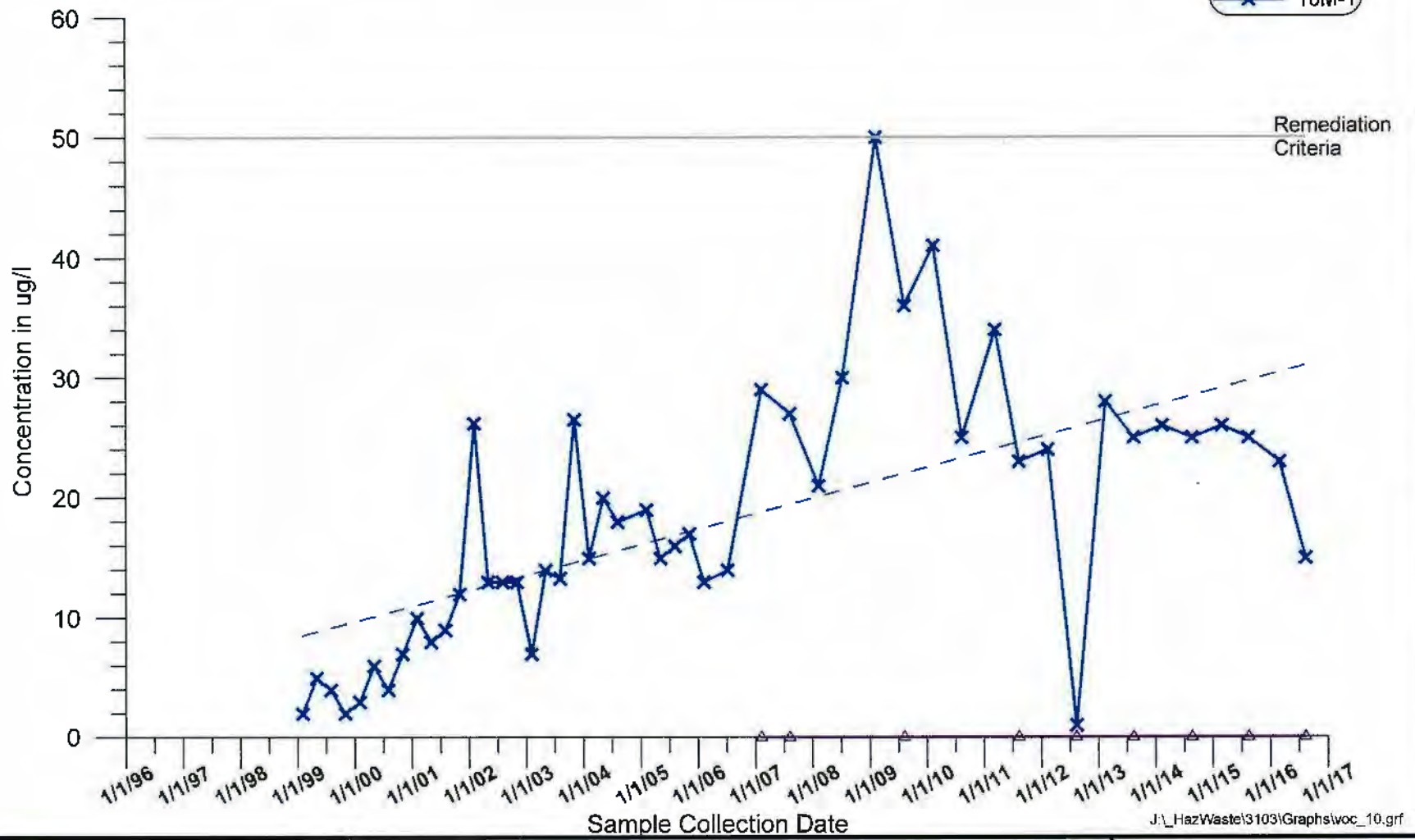

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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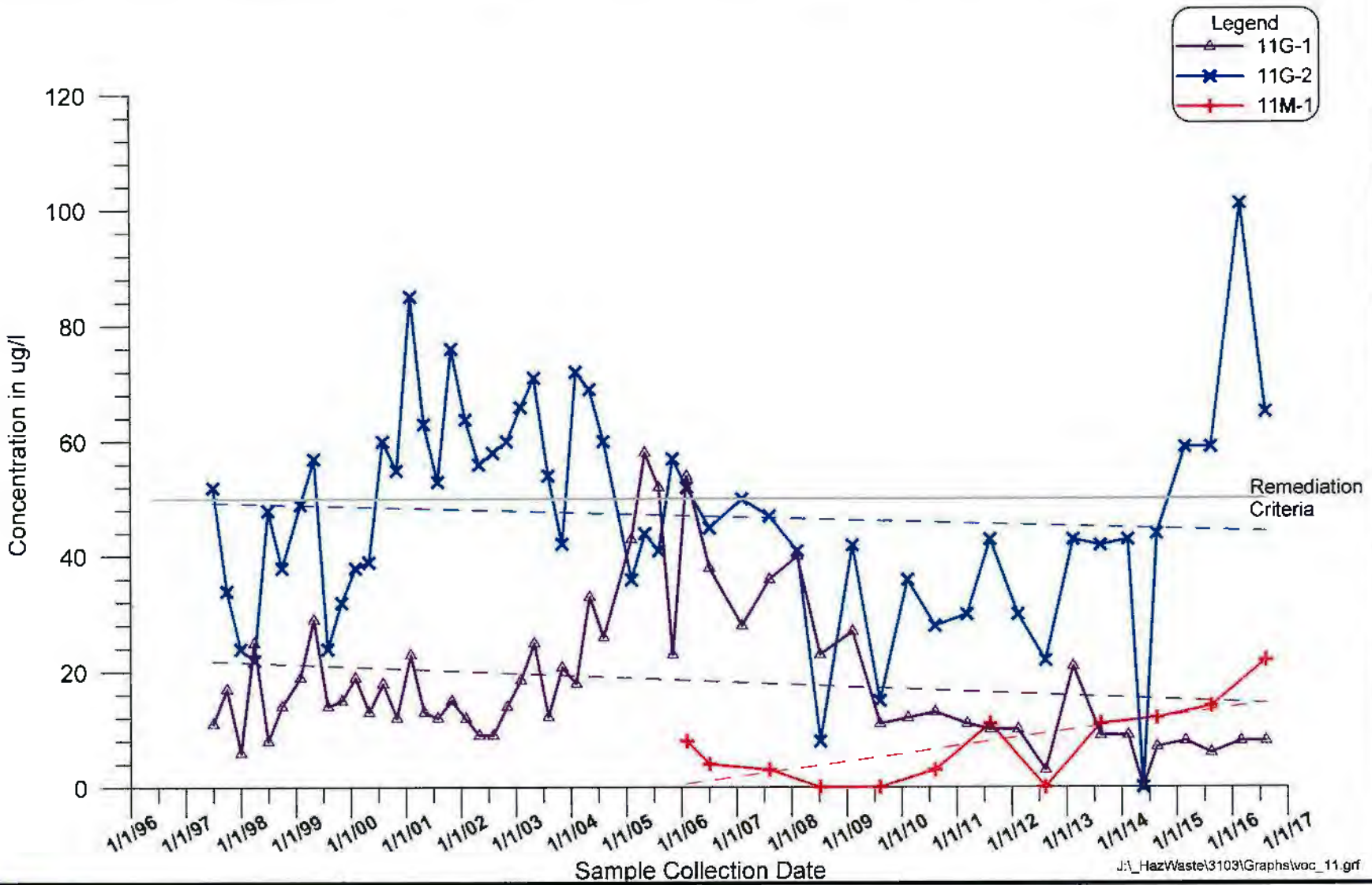

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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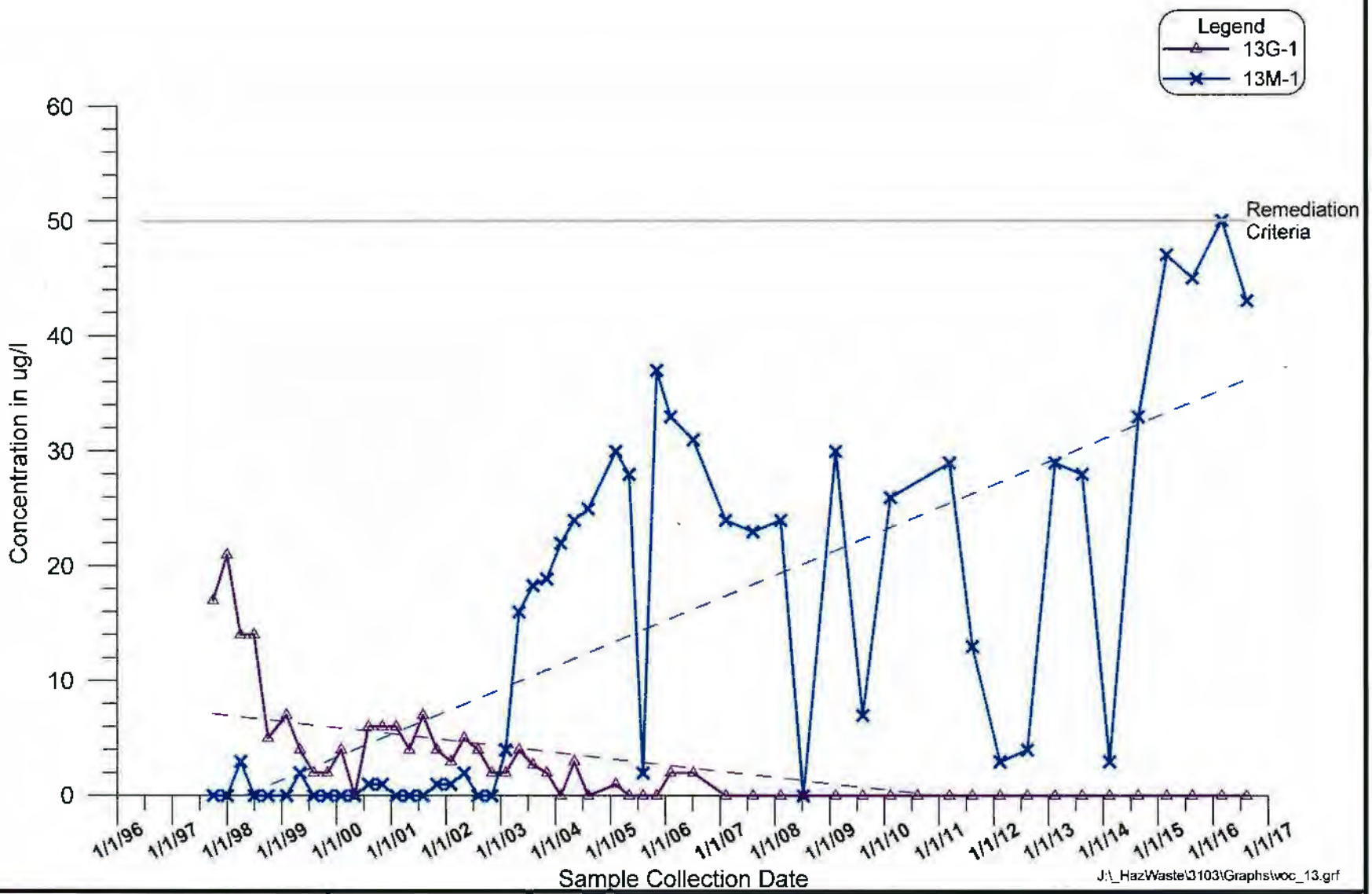

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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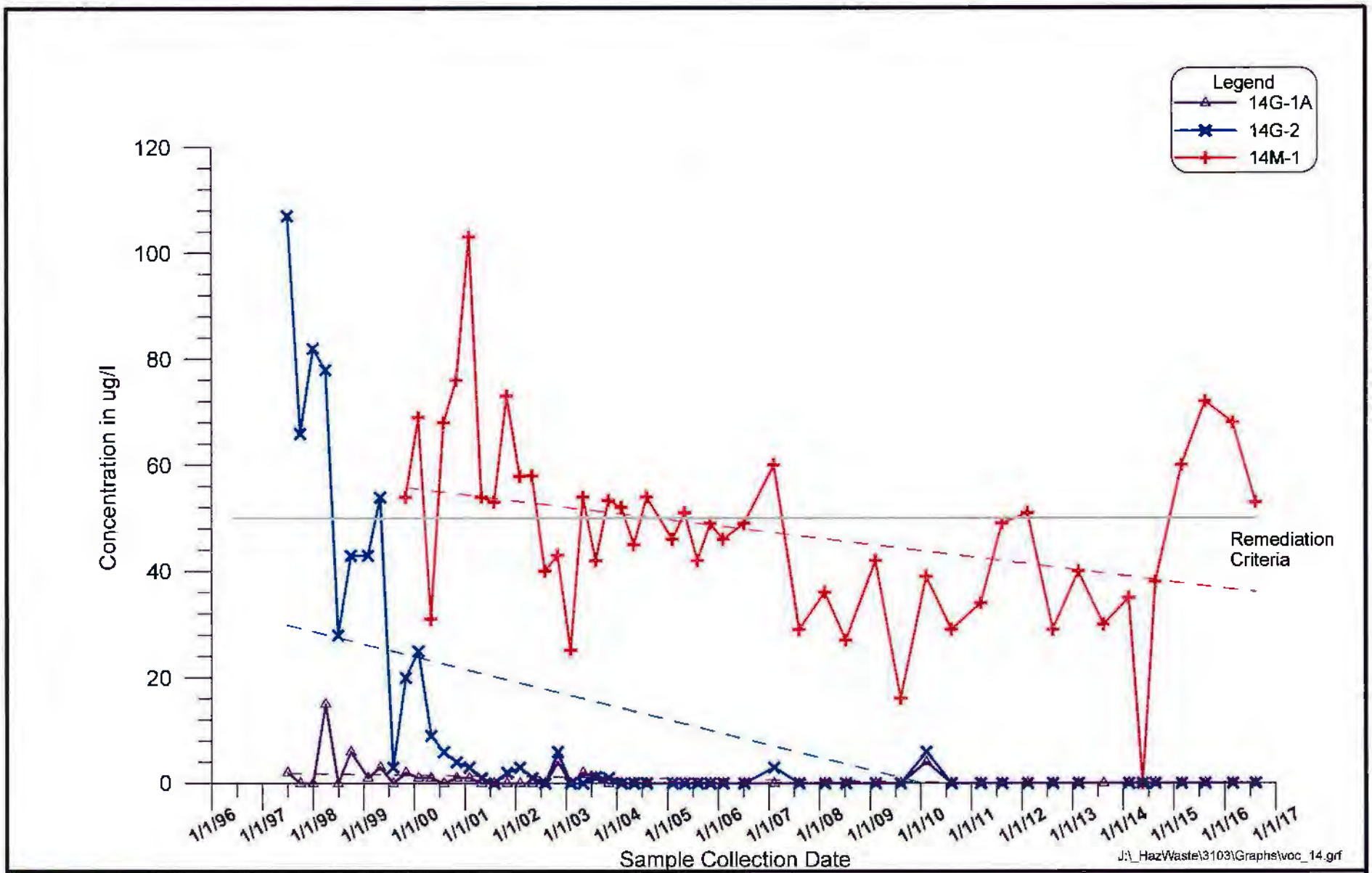

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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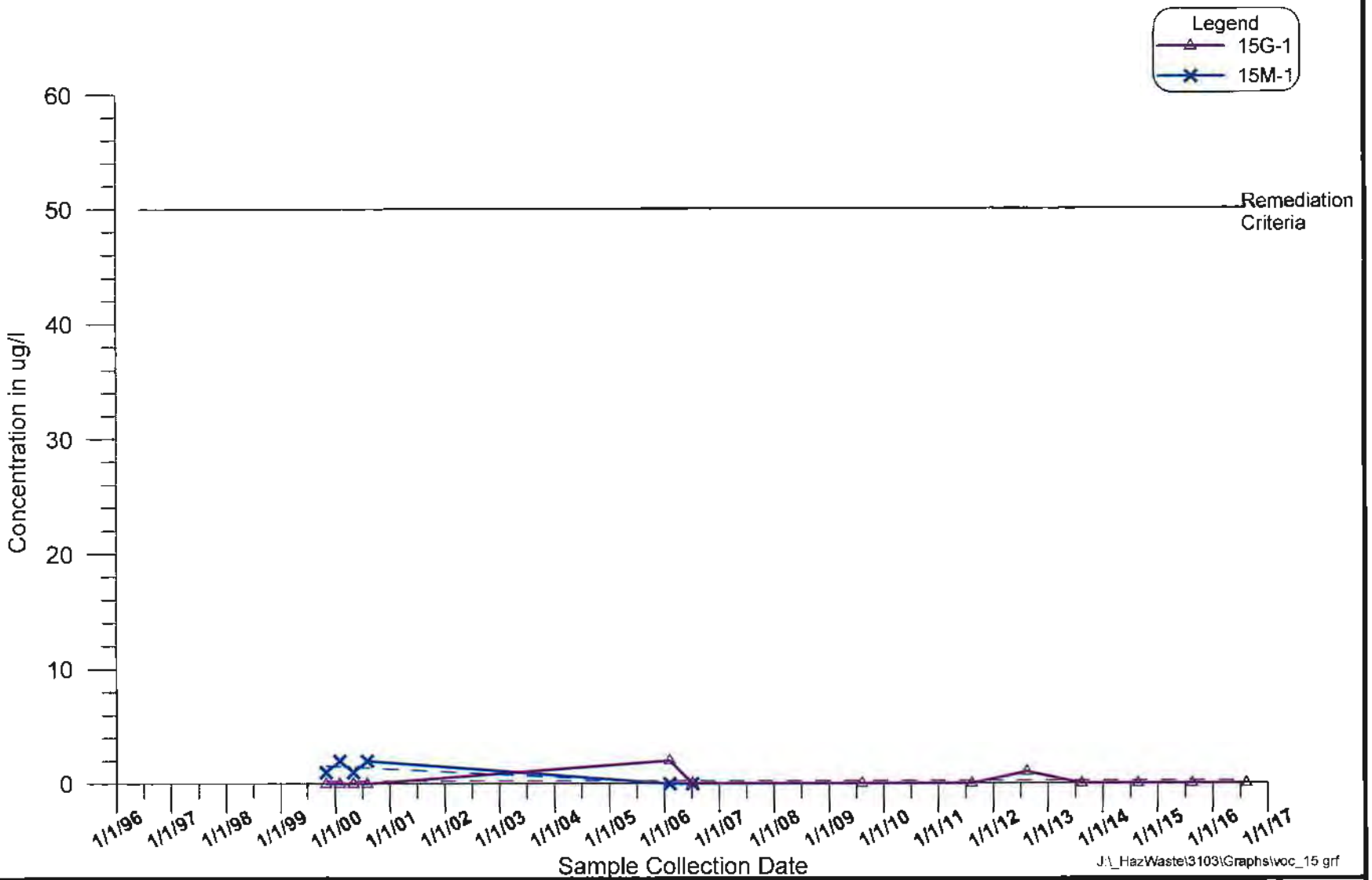

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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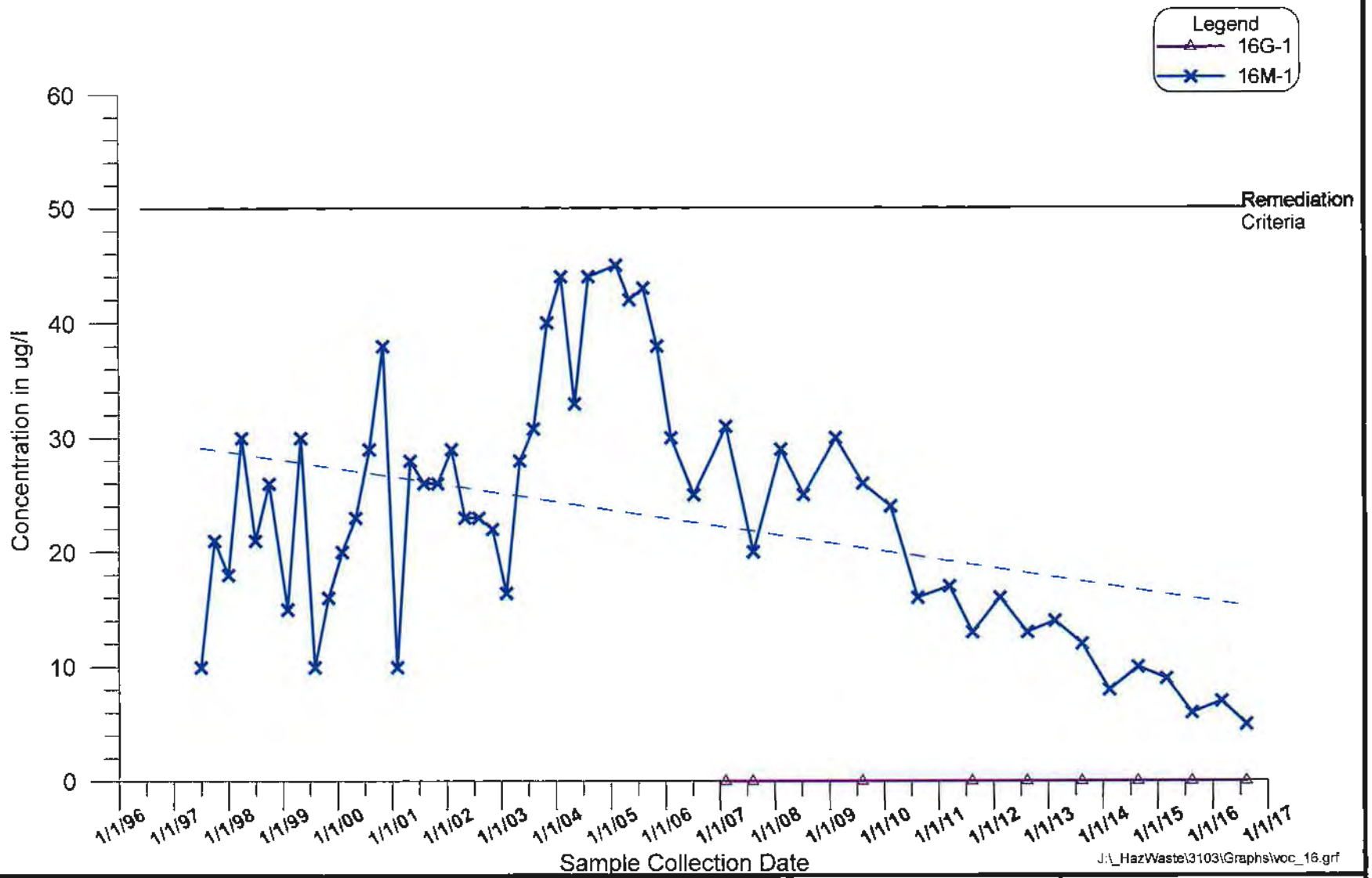

D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Monitoring Well Cluster 16

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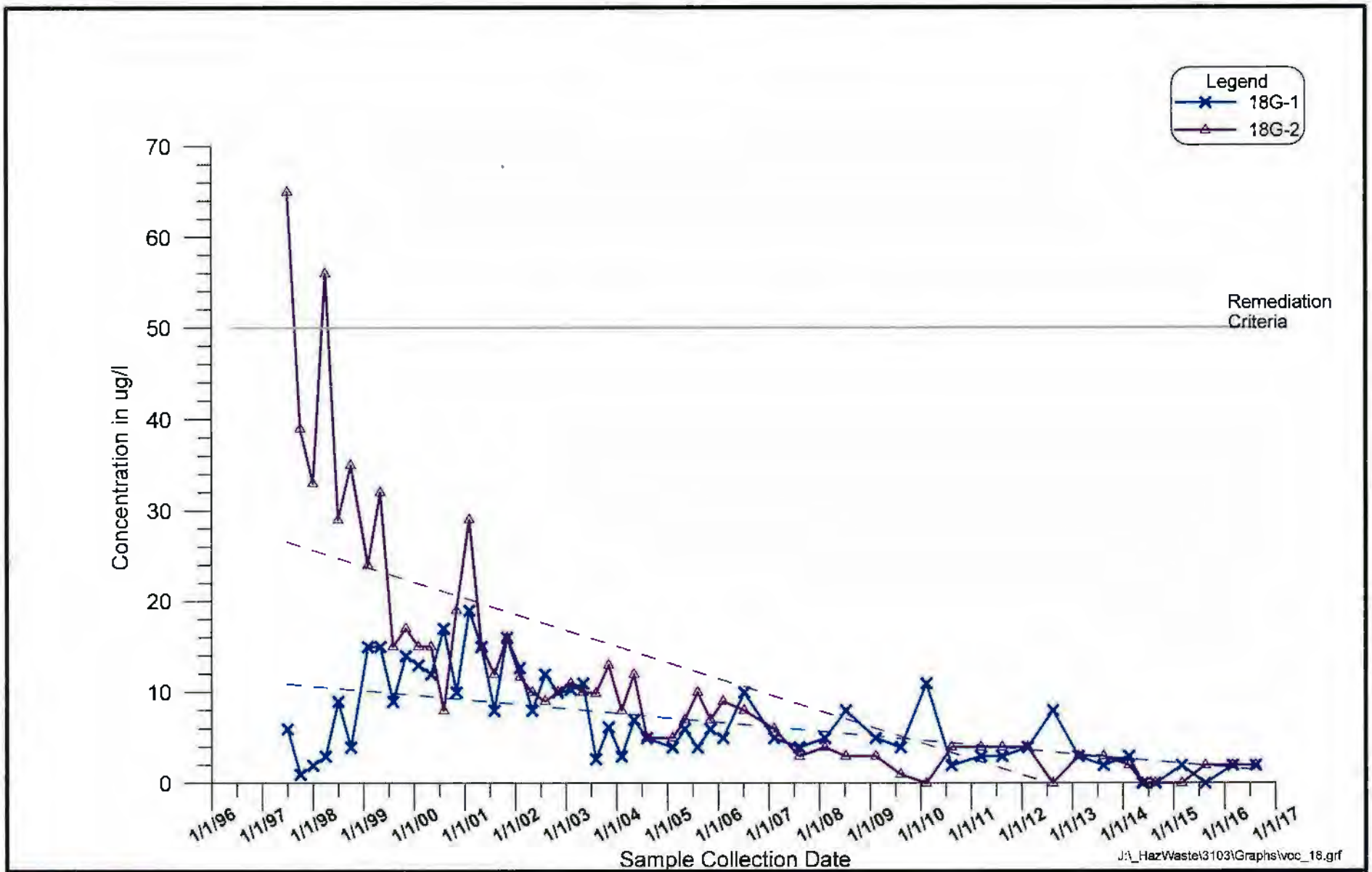

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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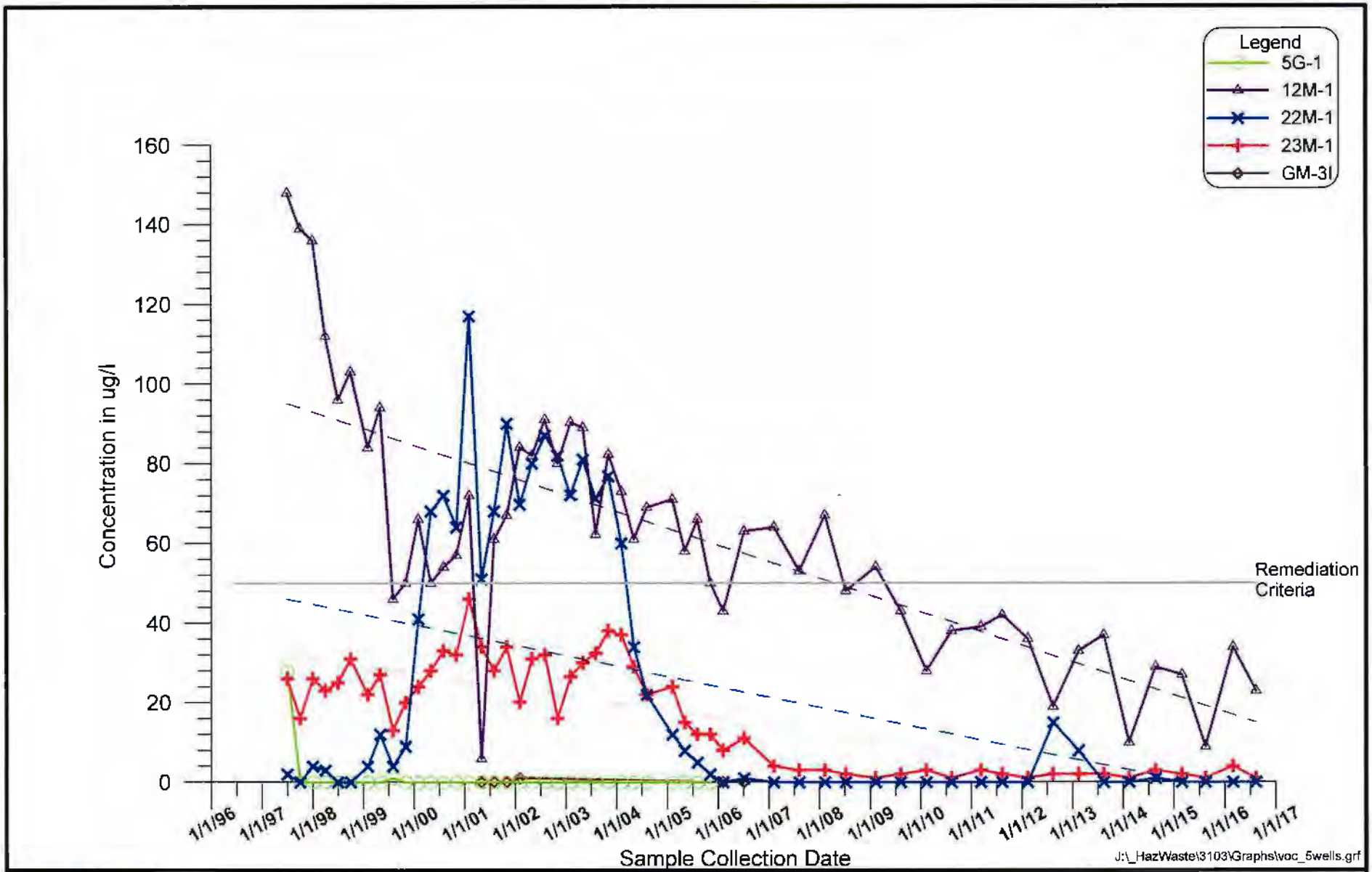

D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Volatile Organic Compound Data for
Select Monitoring Wells

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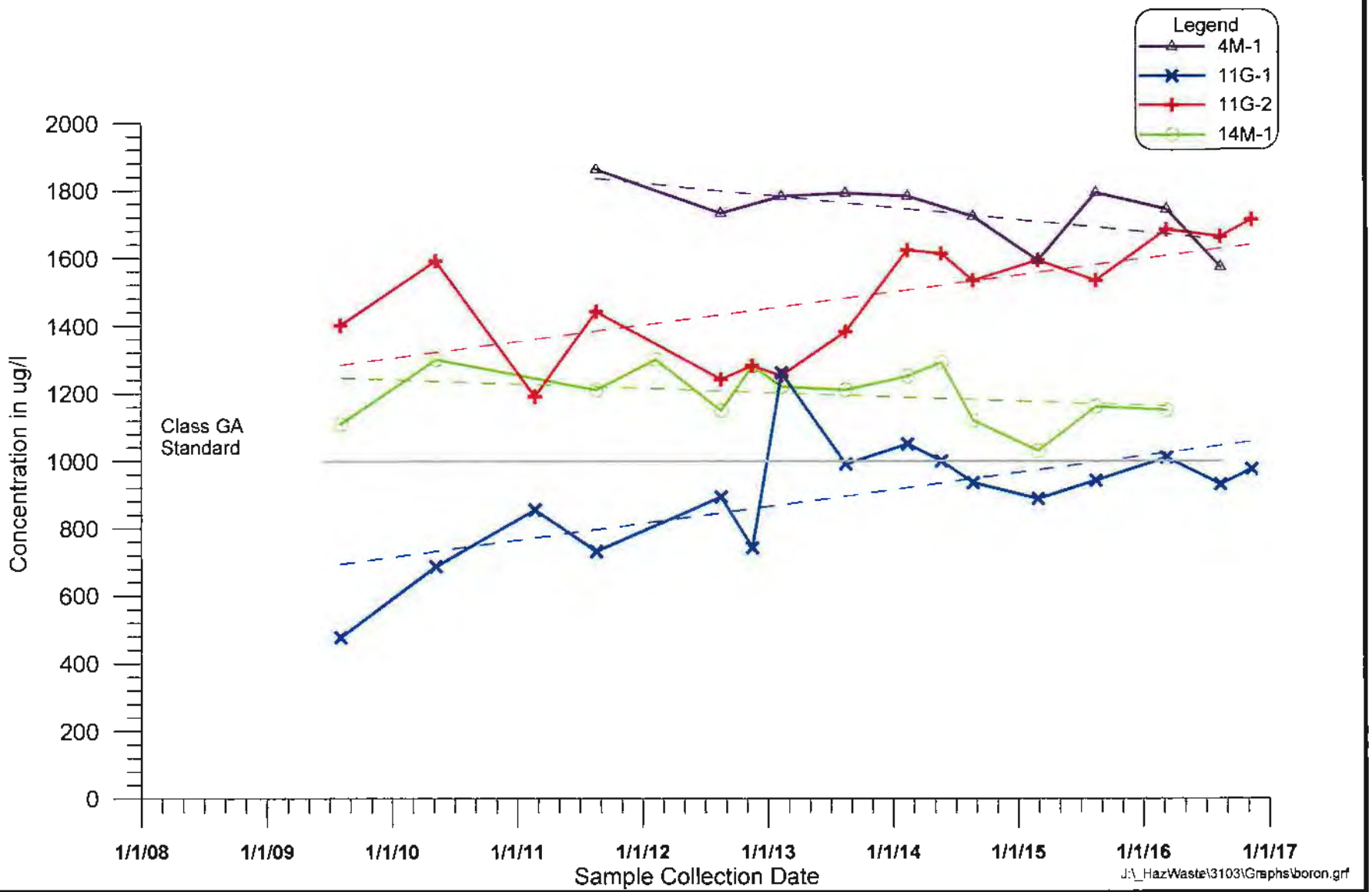

D&B Engineers and Architects, P.C.

Blydenburgh Road Landfill Complex
Historical Boron Data for Select Monitoring Wells

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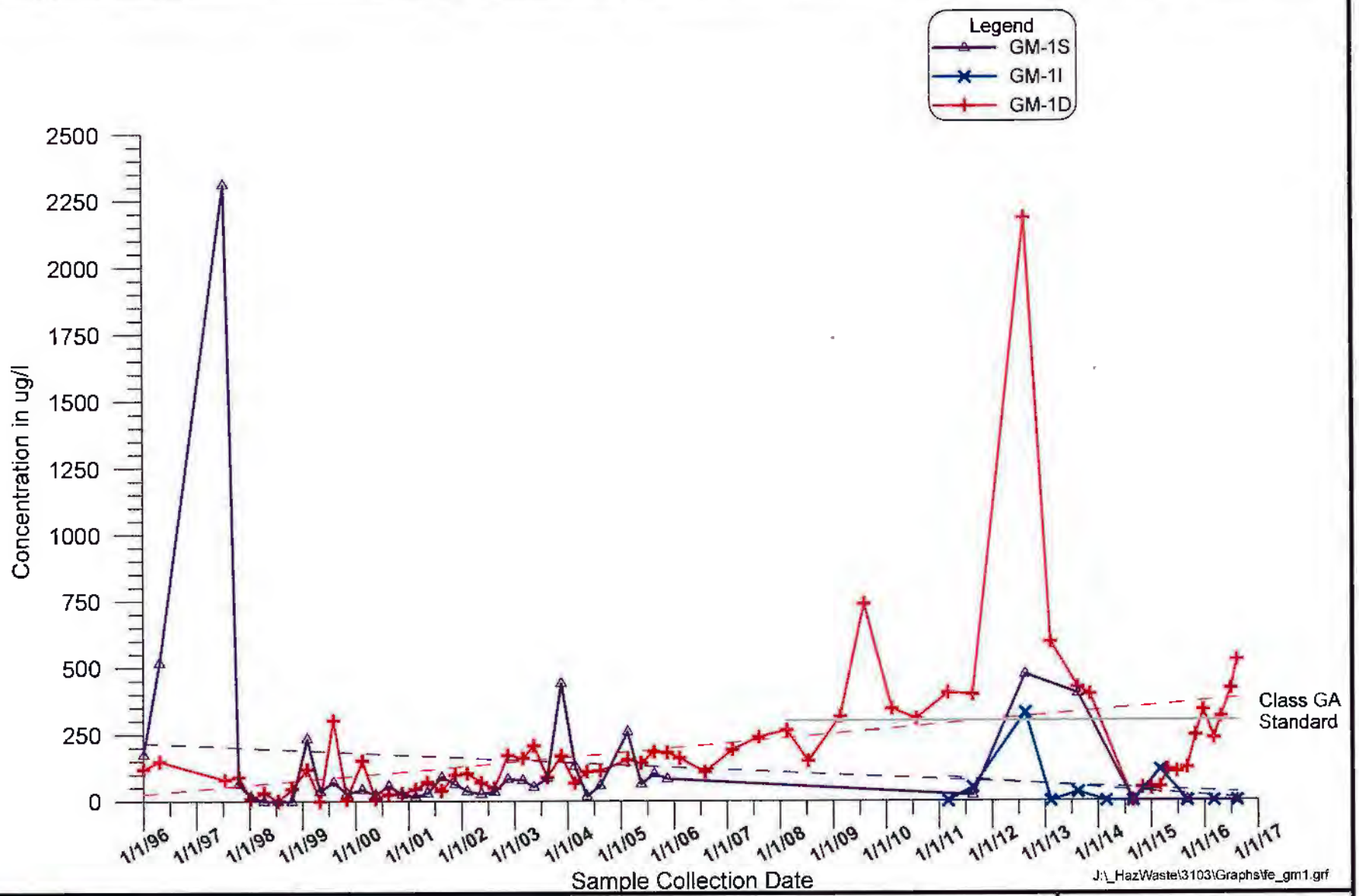

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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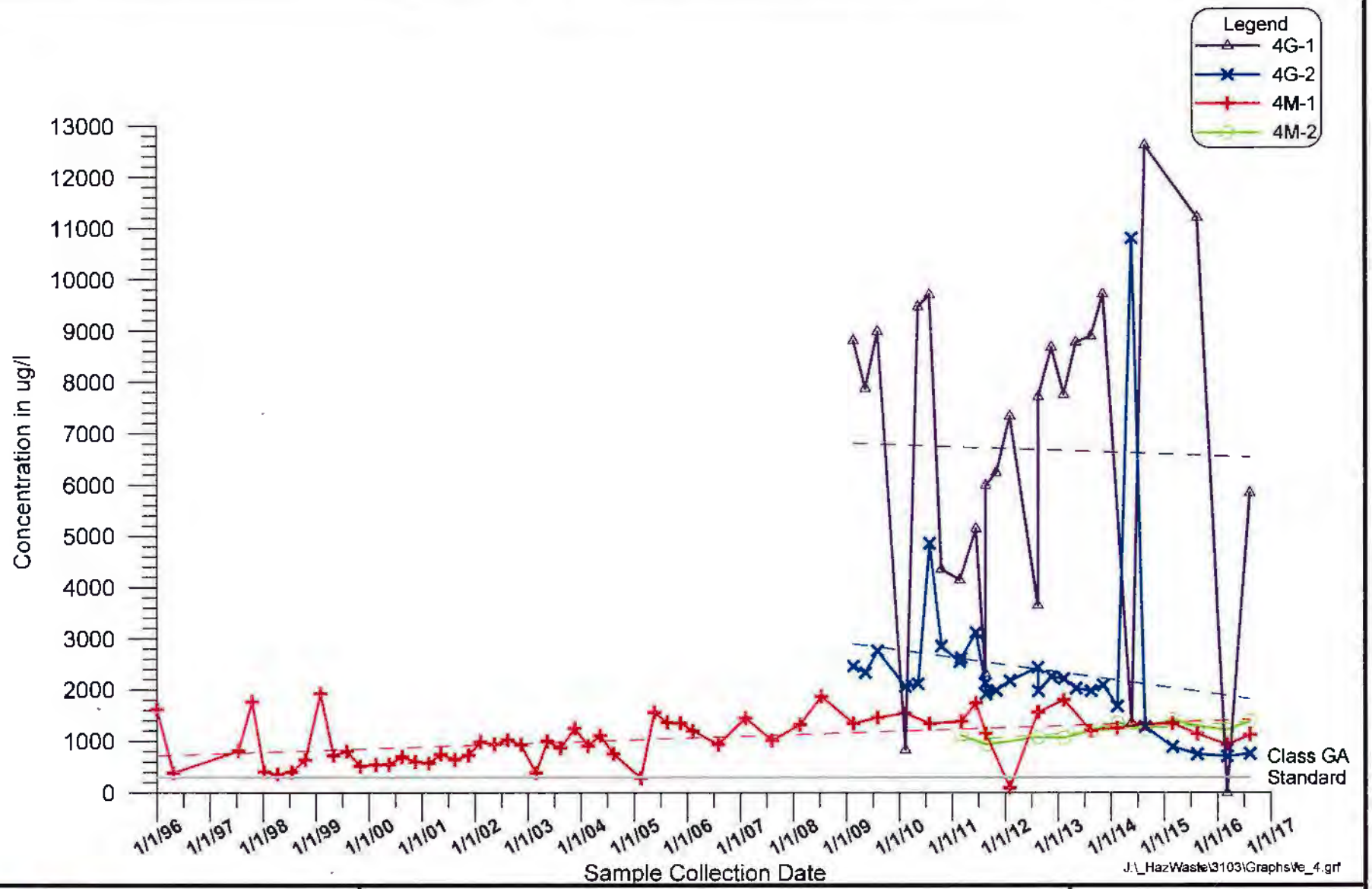

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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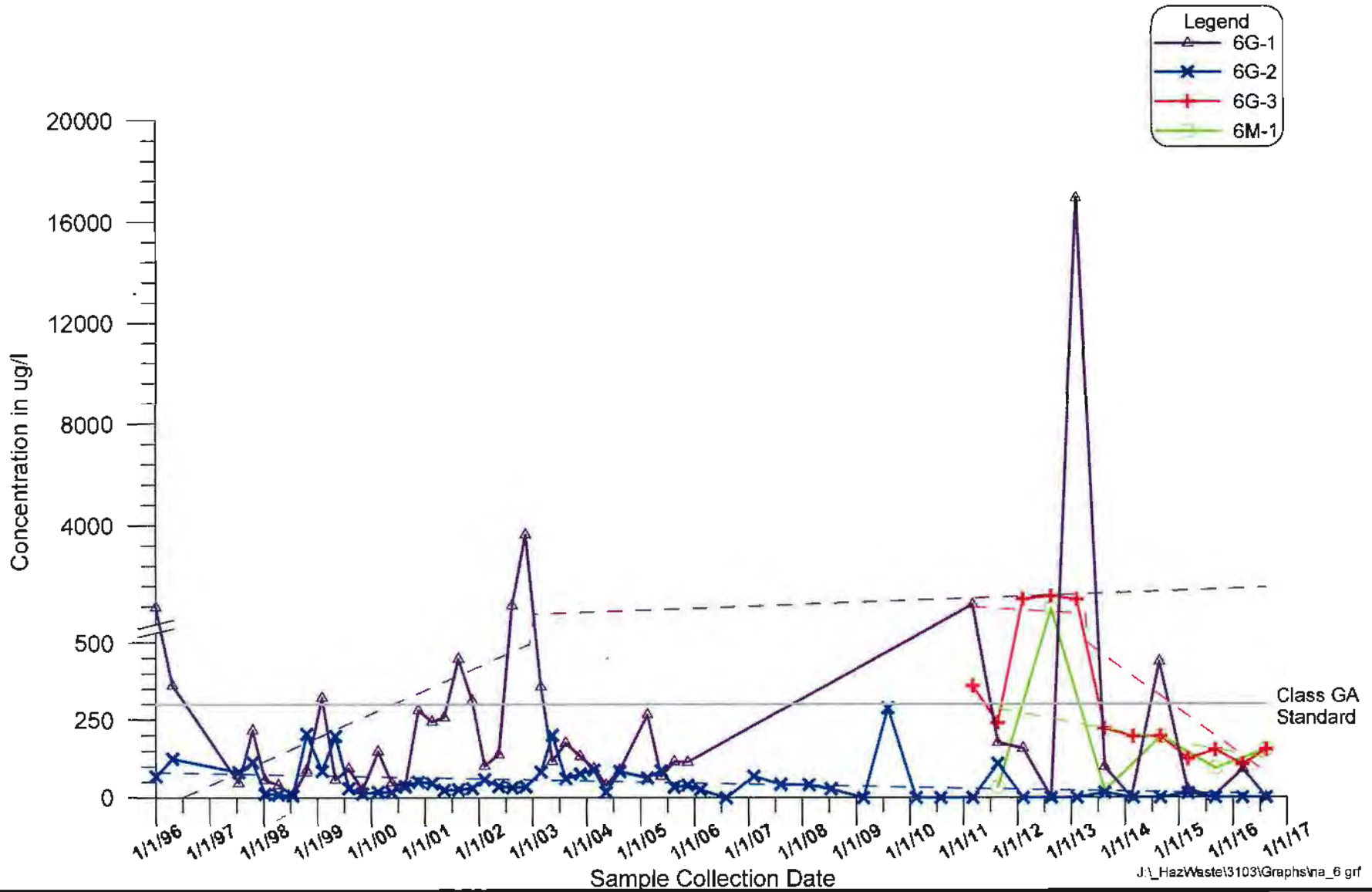

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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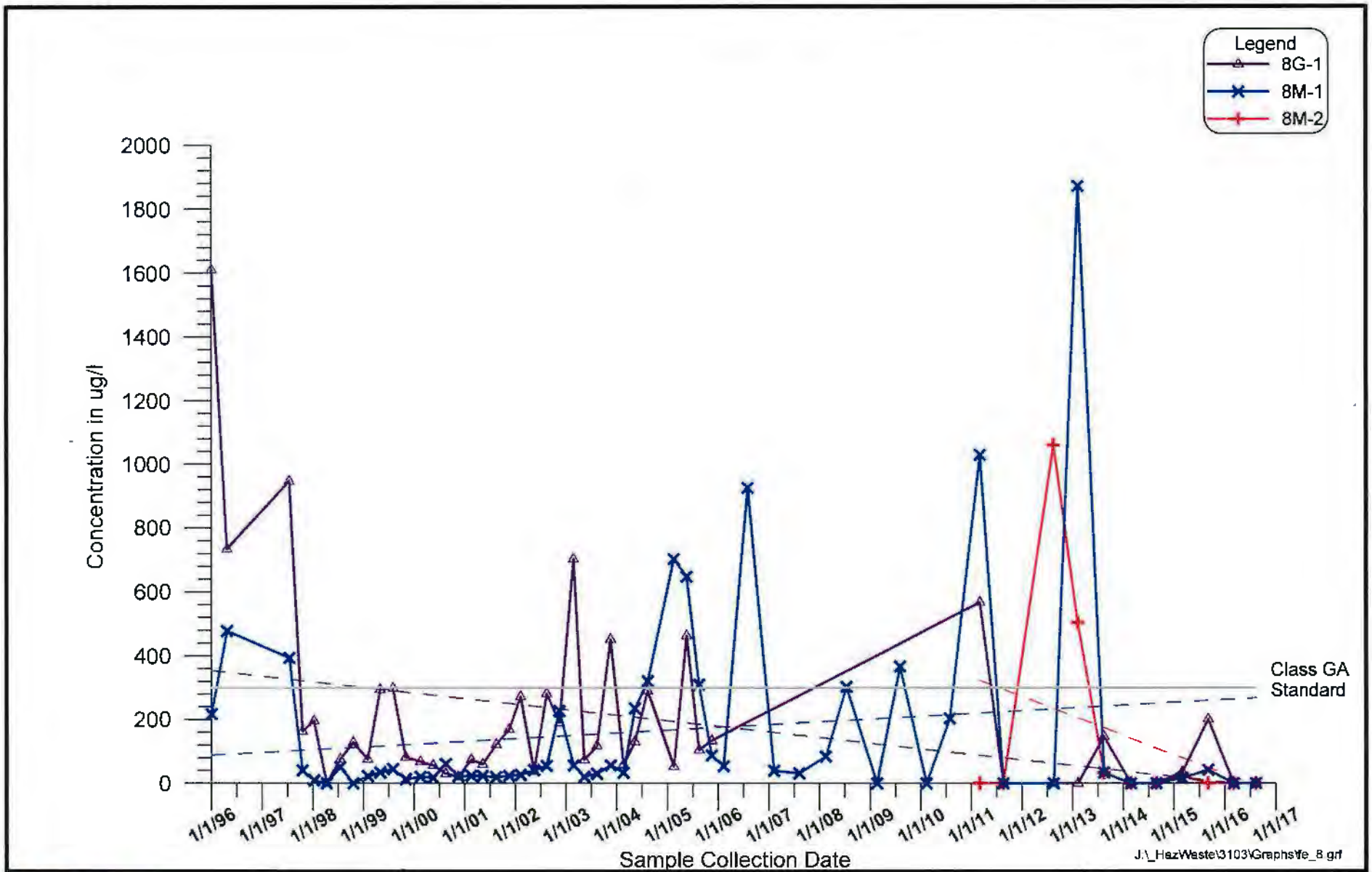

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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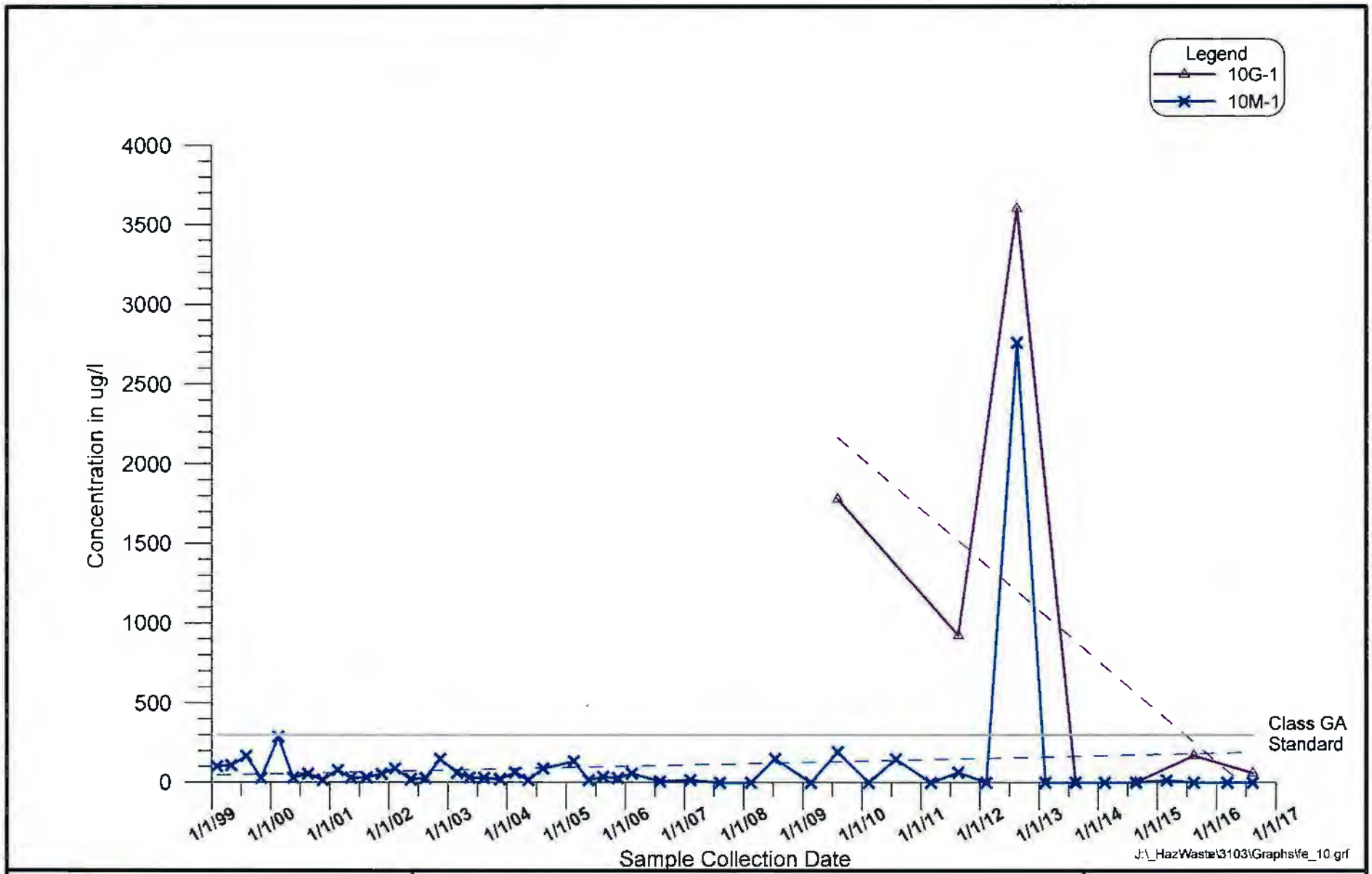

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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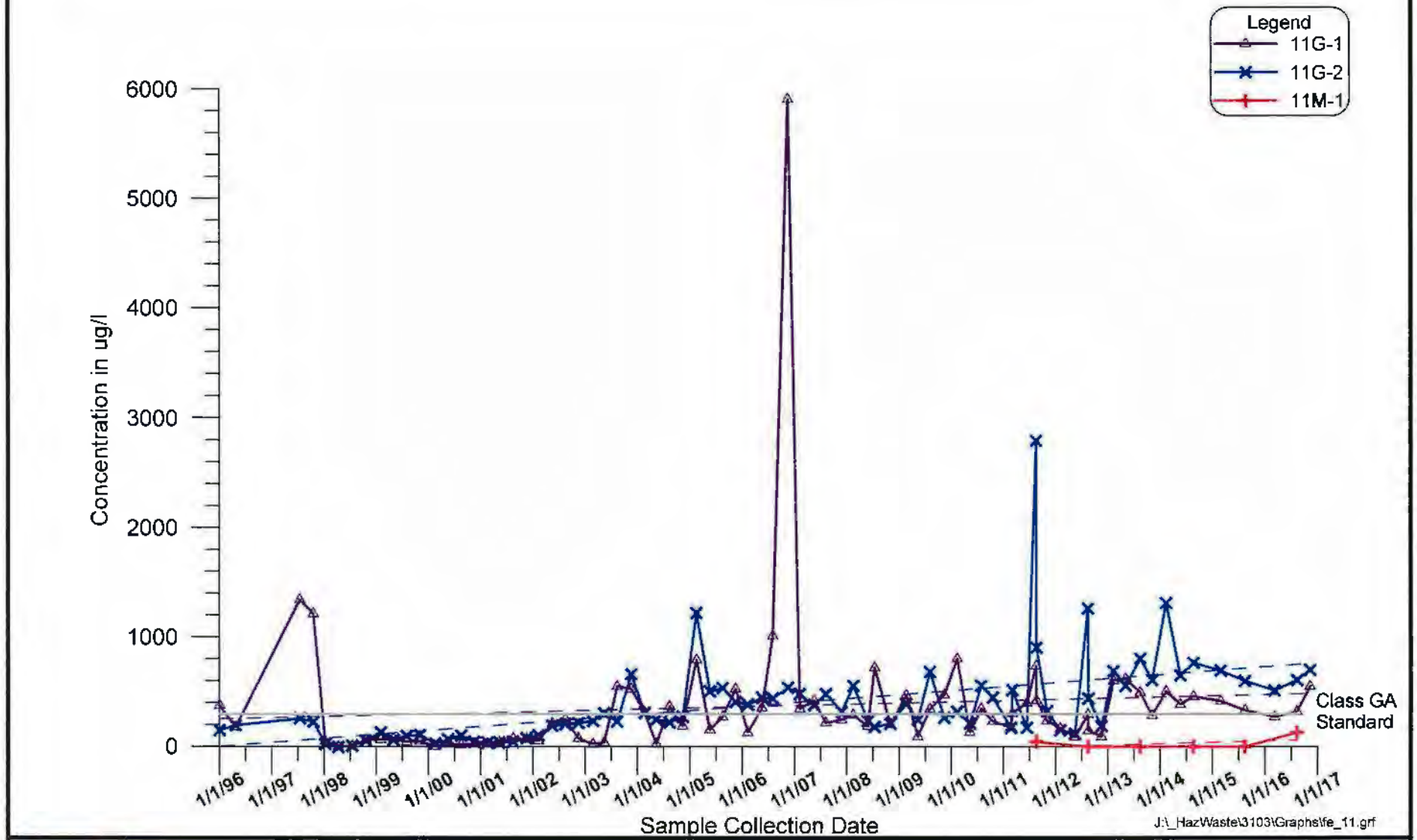

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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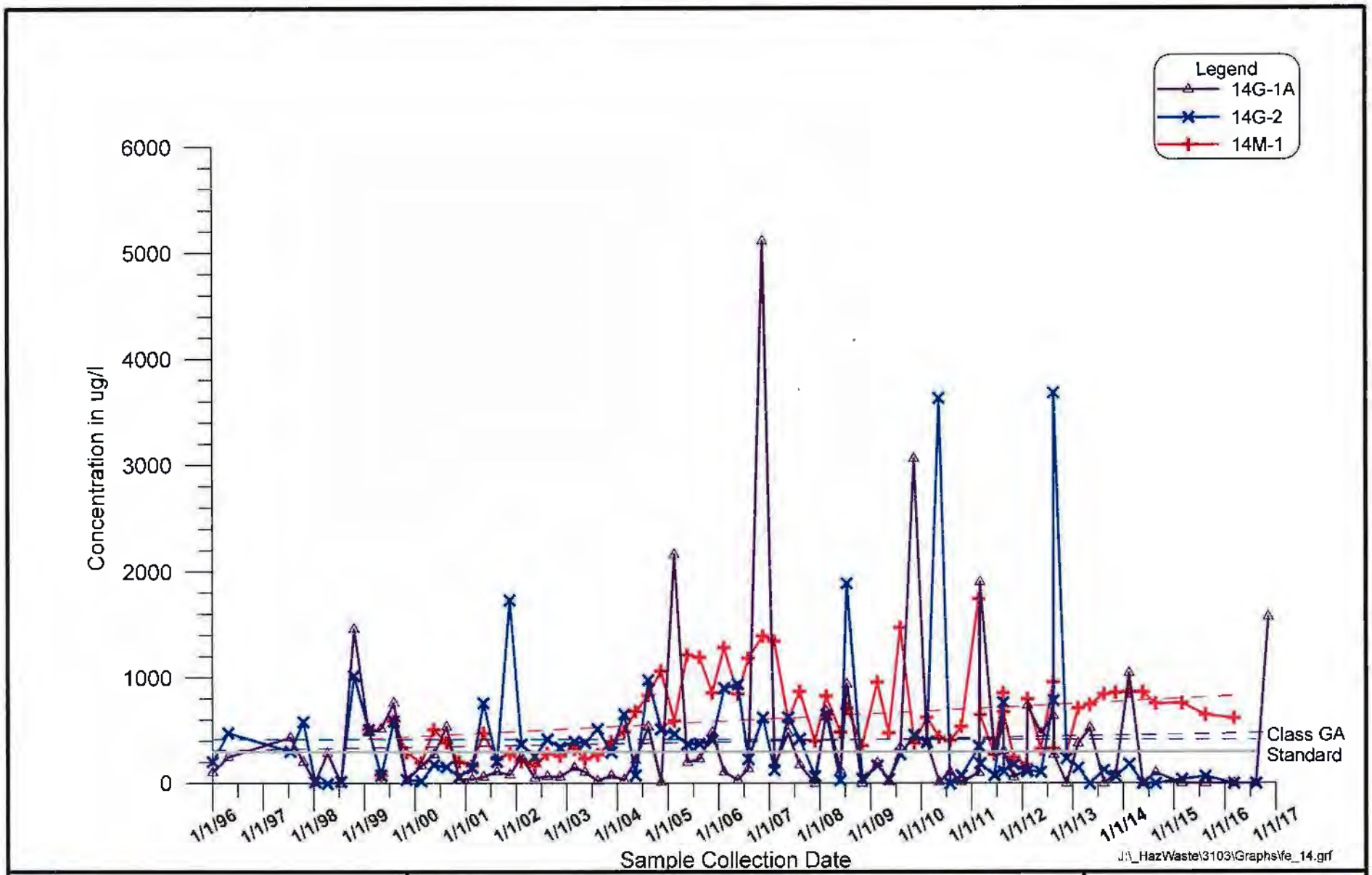

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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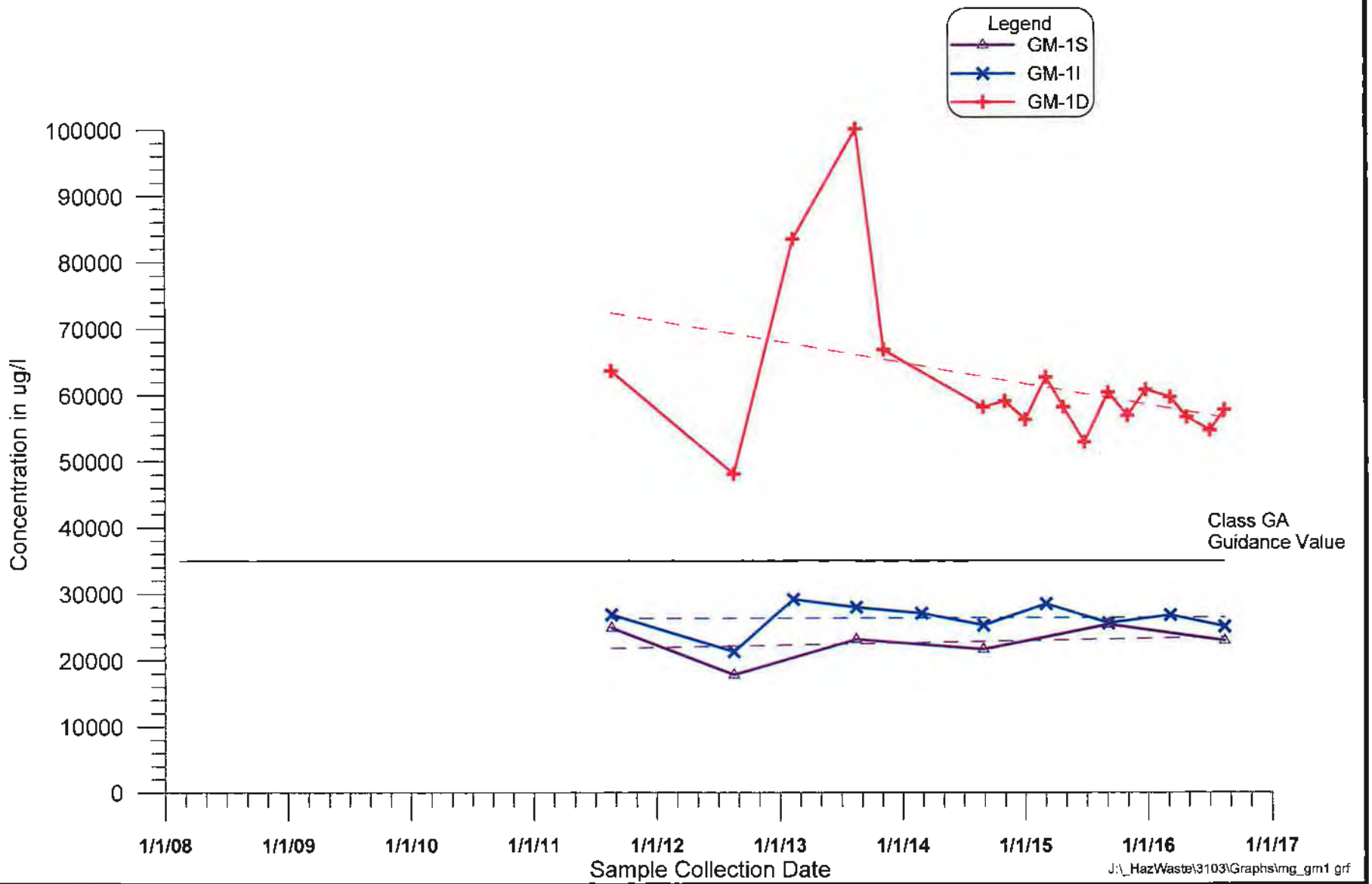

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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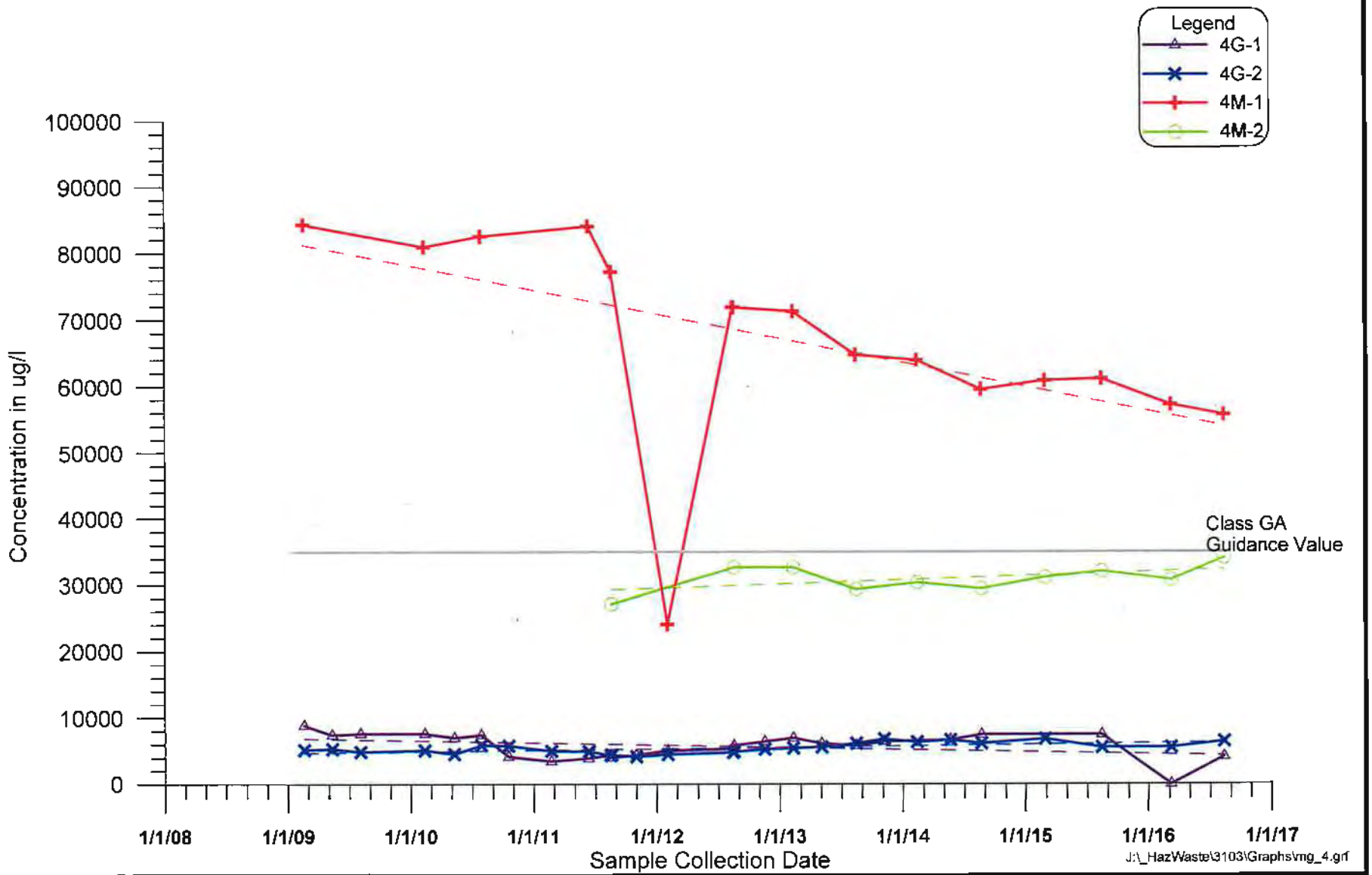

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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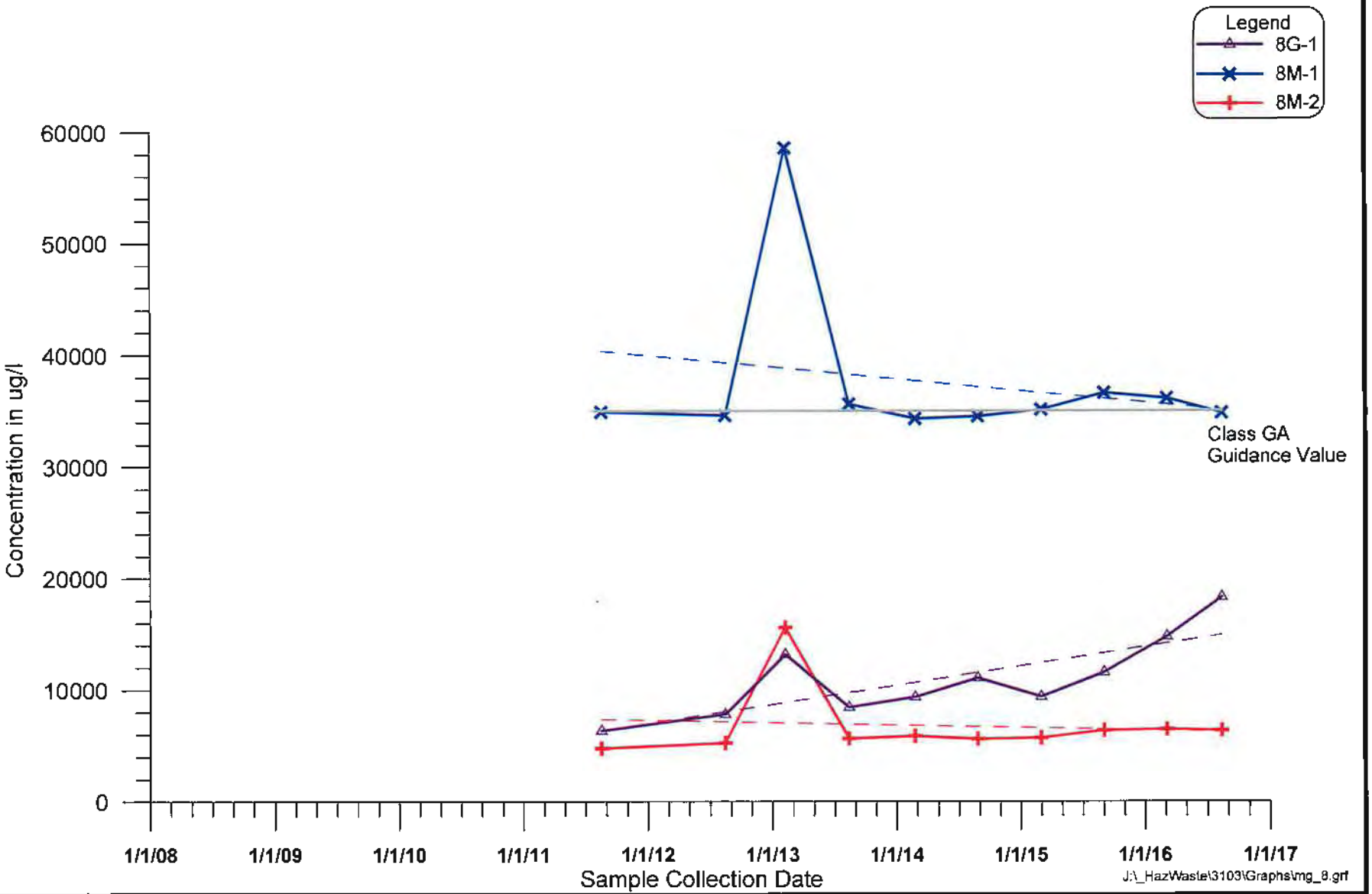

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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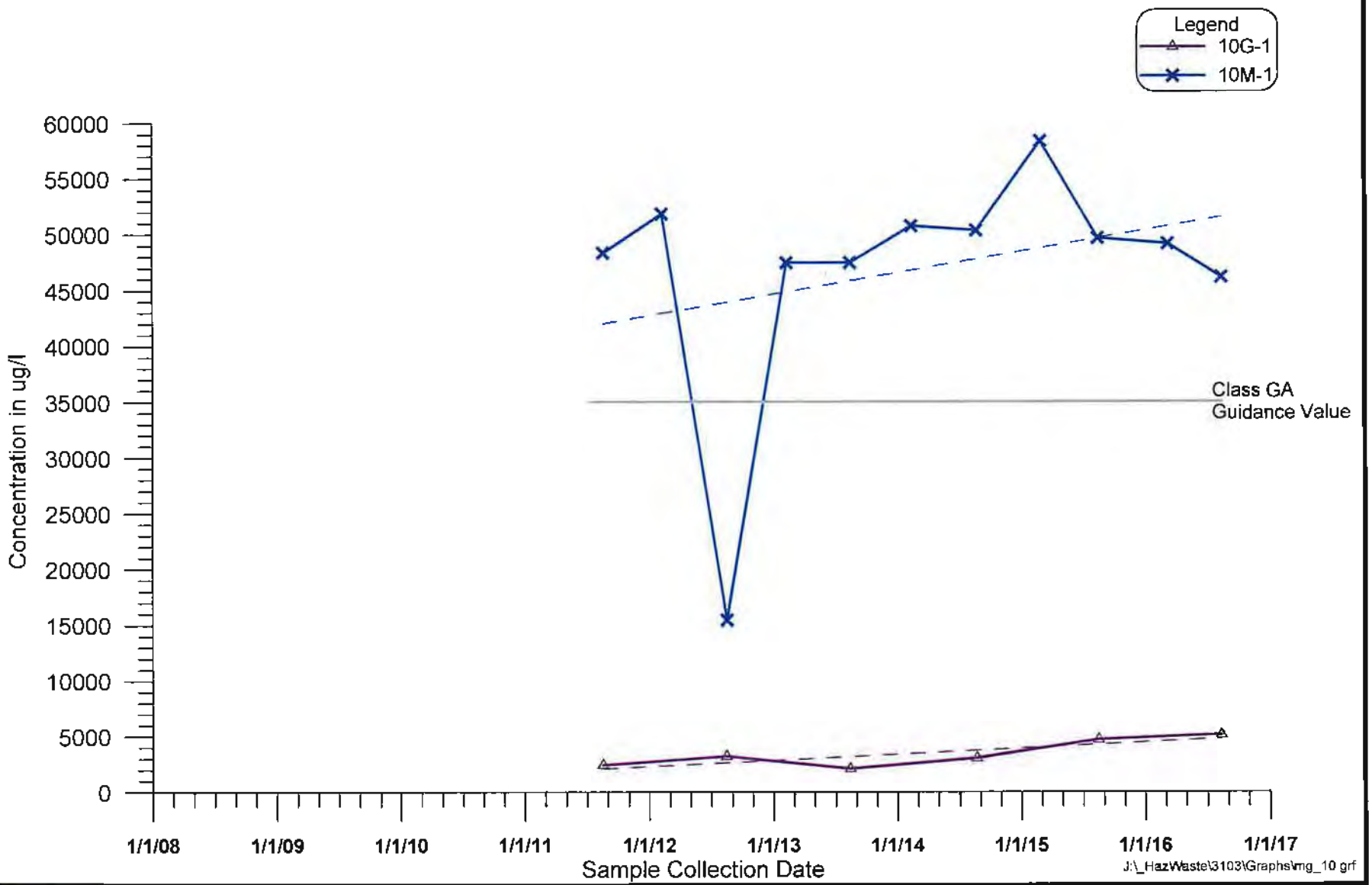

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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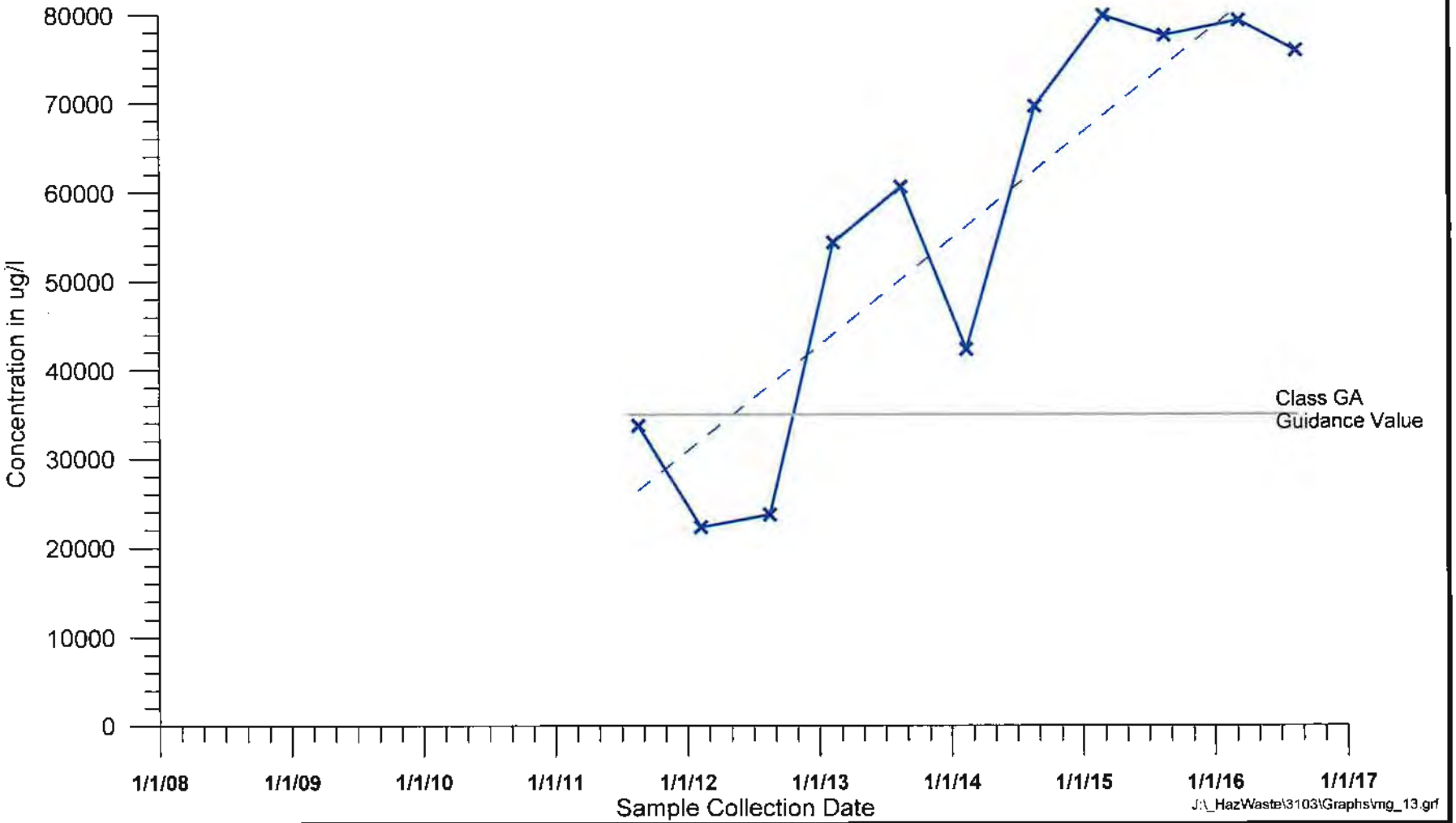

D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Magnesium Data for Monitoring Well 13M-1

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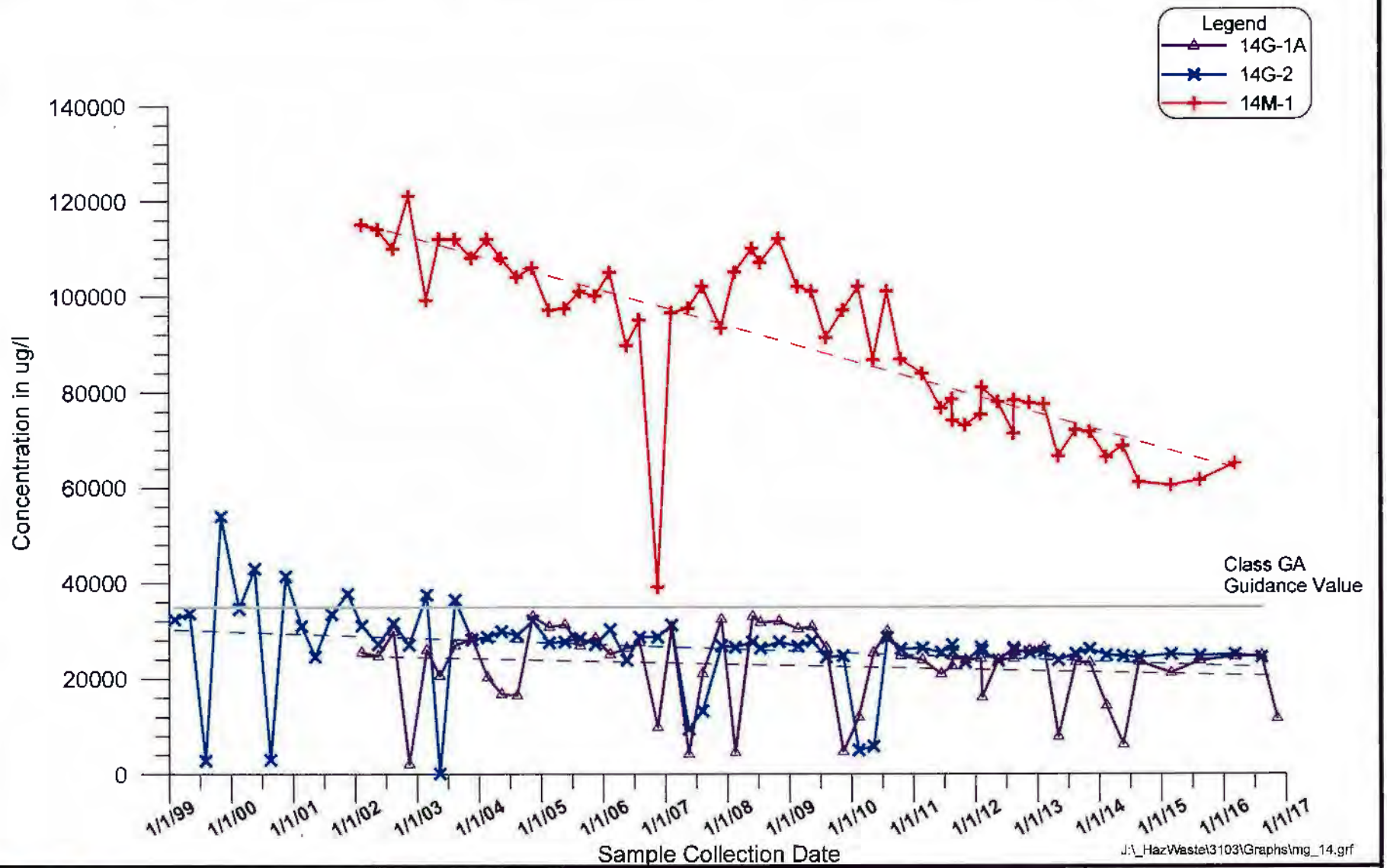

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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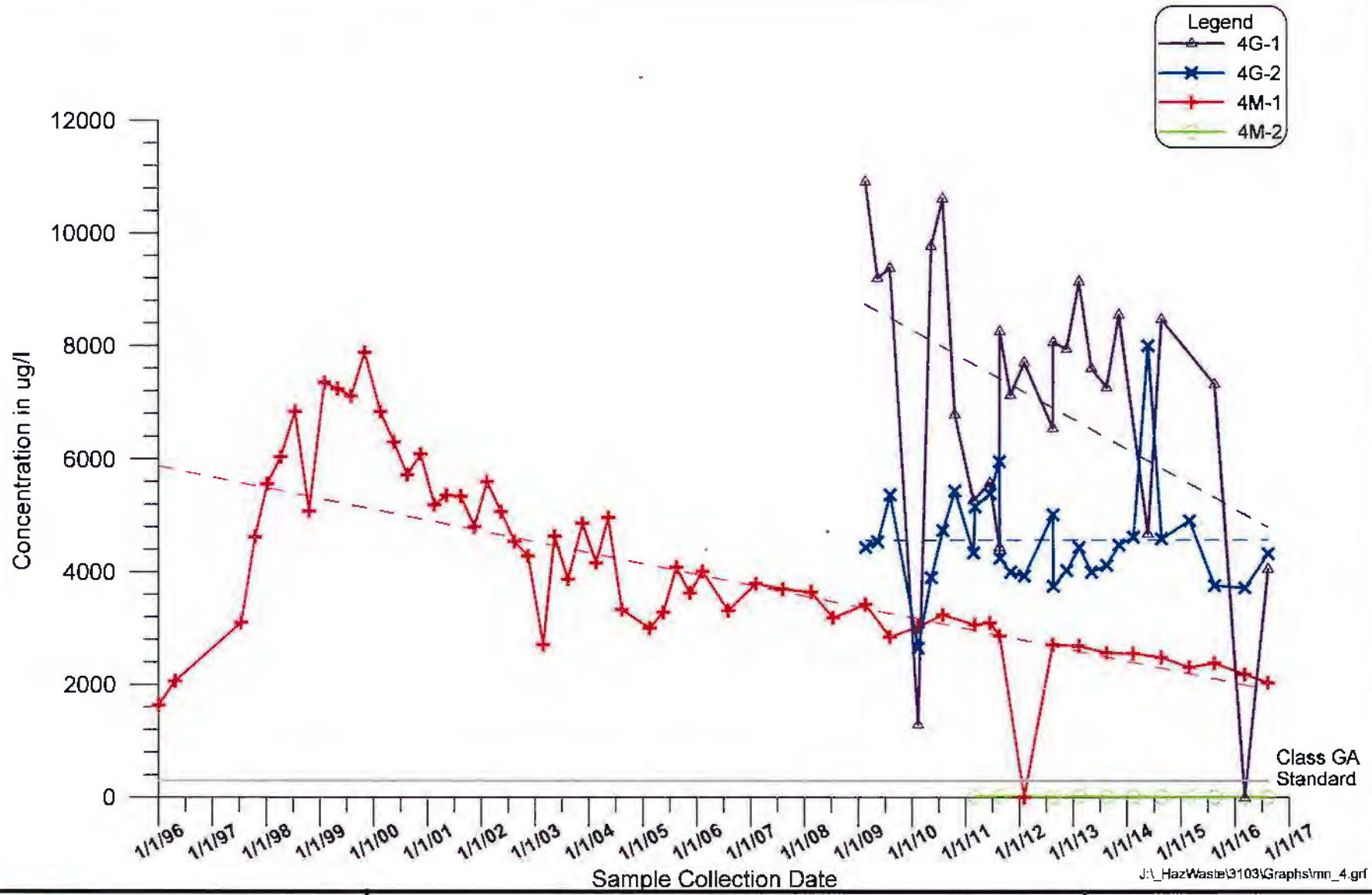

D&B Engineers and Architects, P.C.

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

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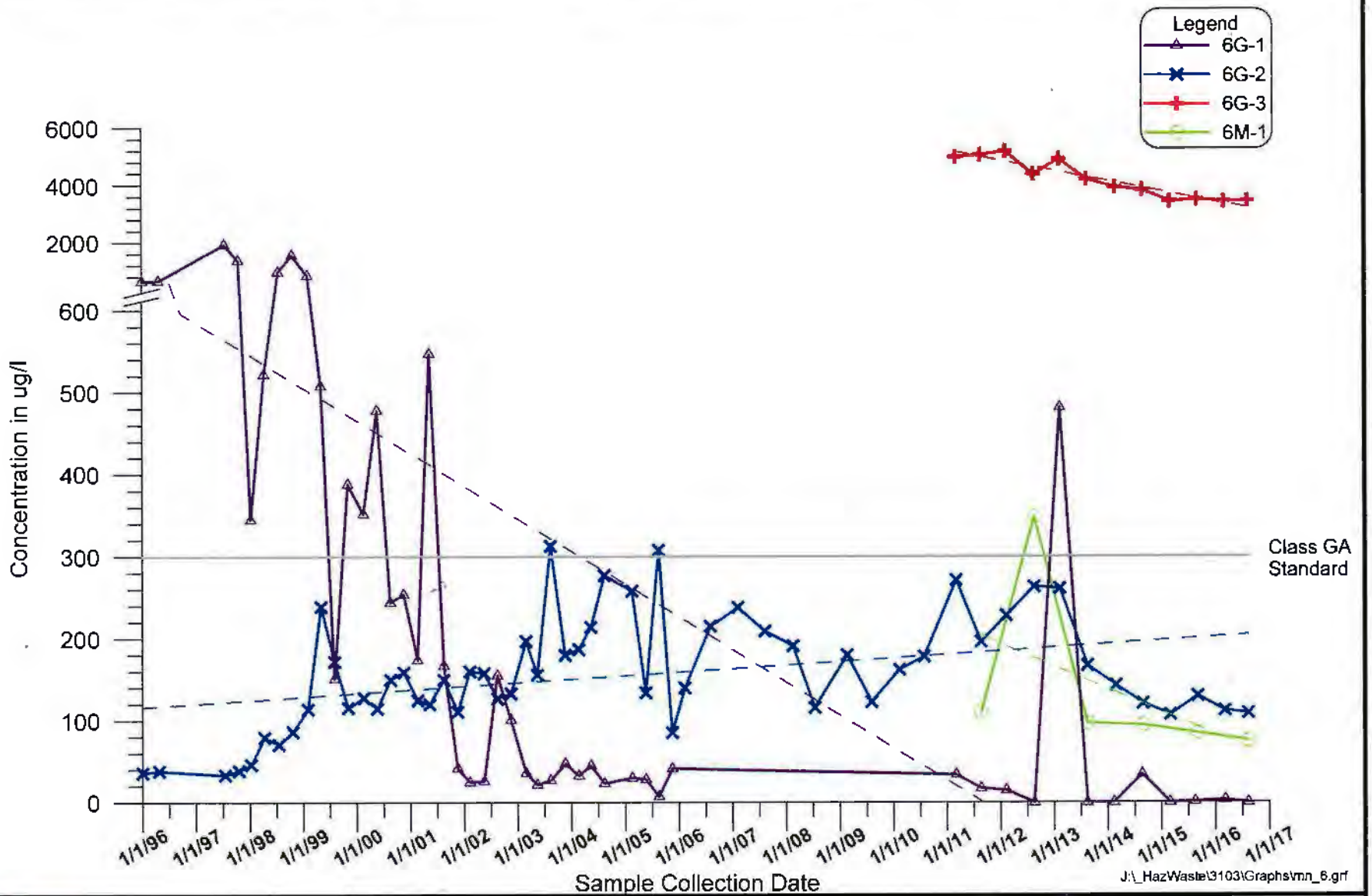

D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Manganese Data for Monitoring Well Cluster 6

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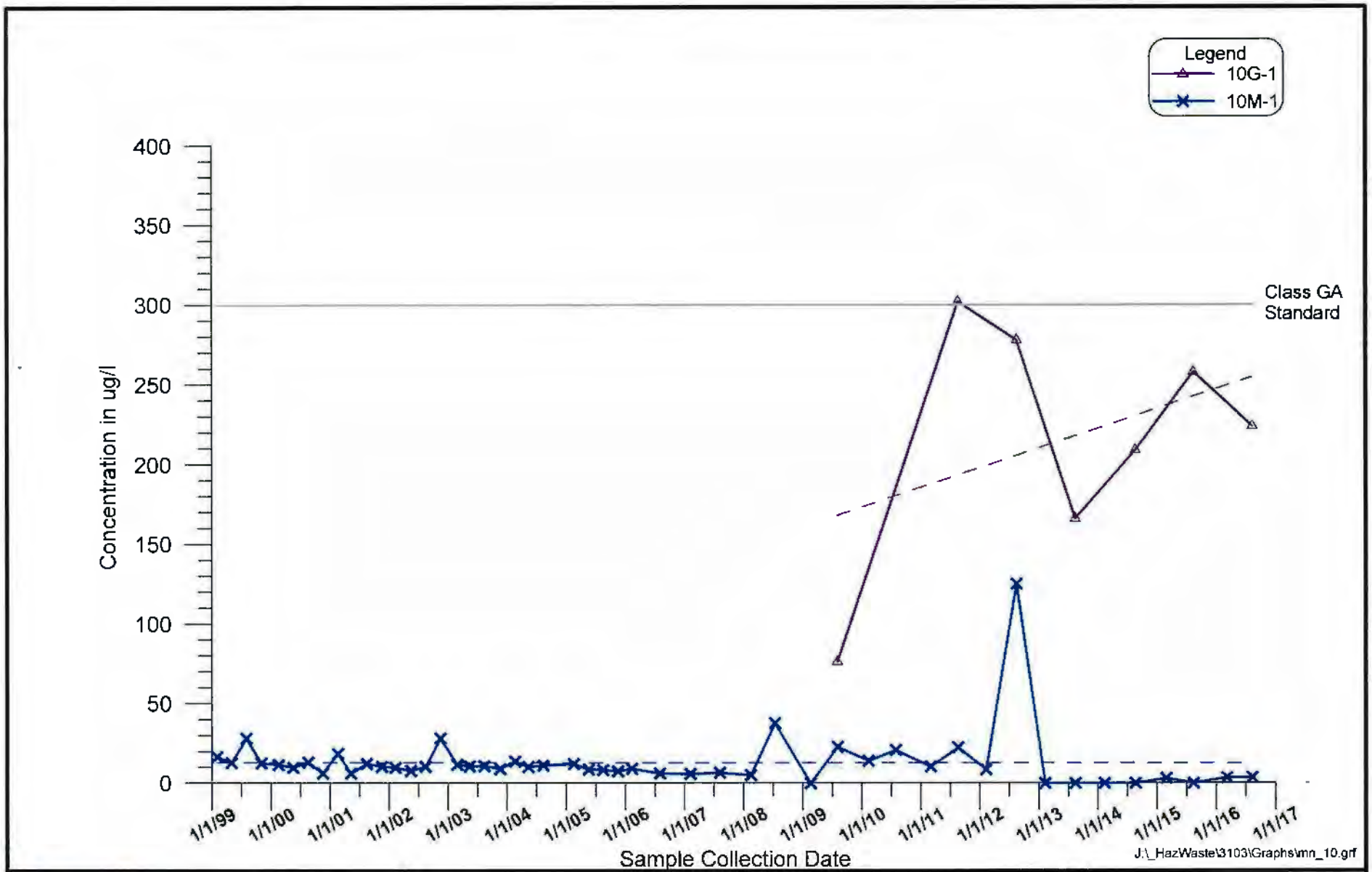

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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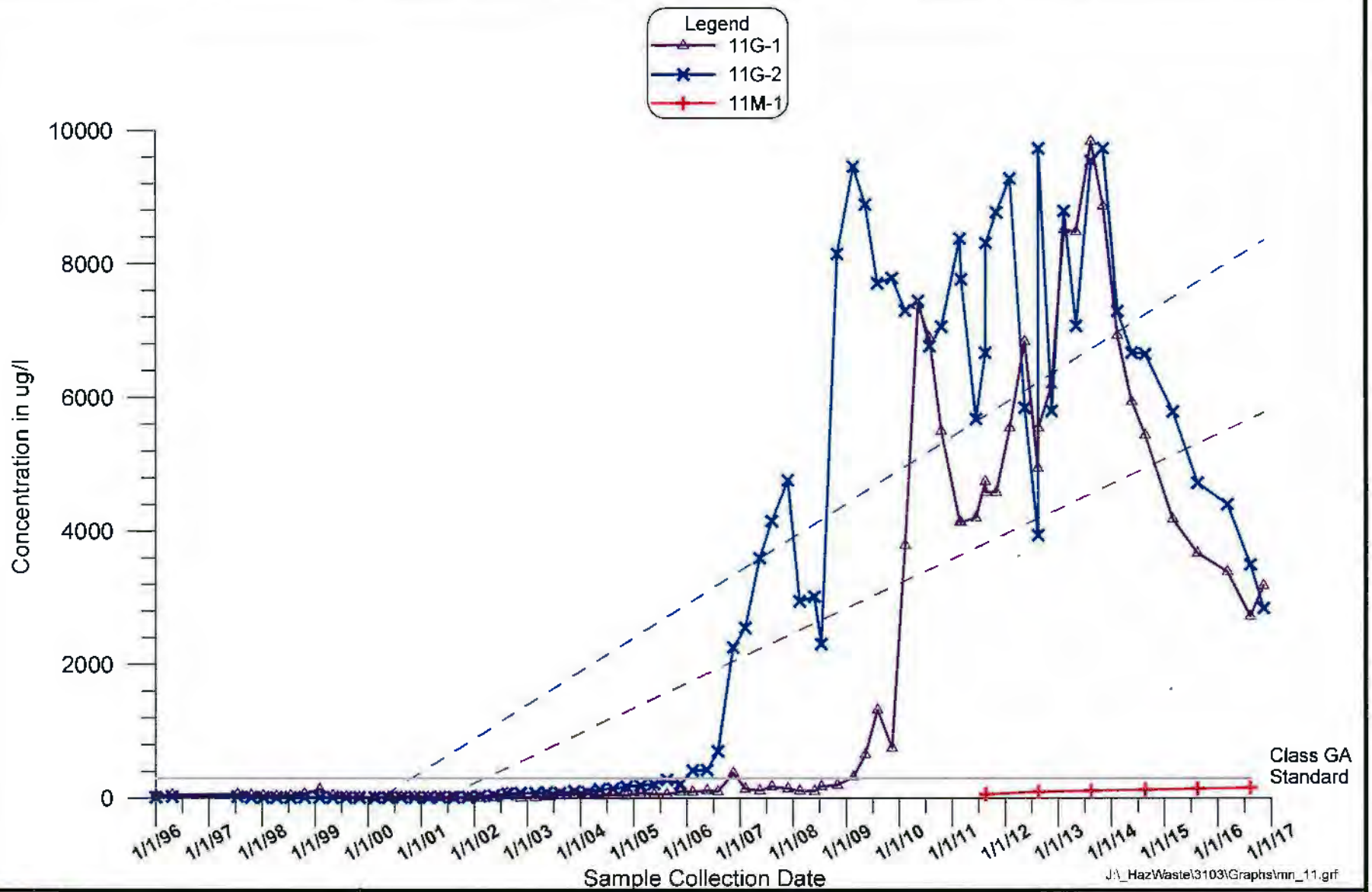

D&B Engineers and Architects, P.C.

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

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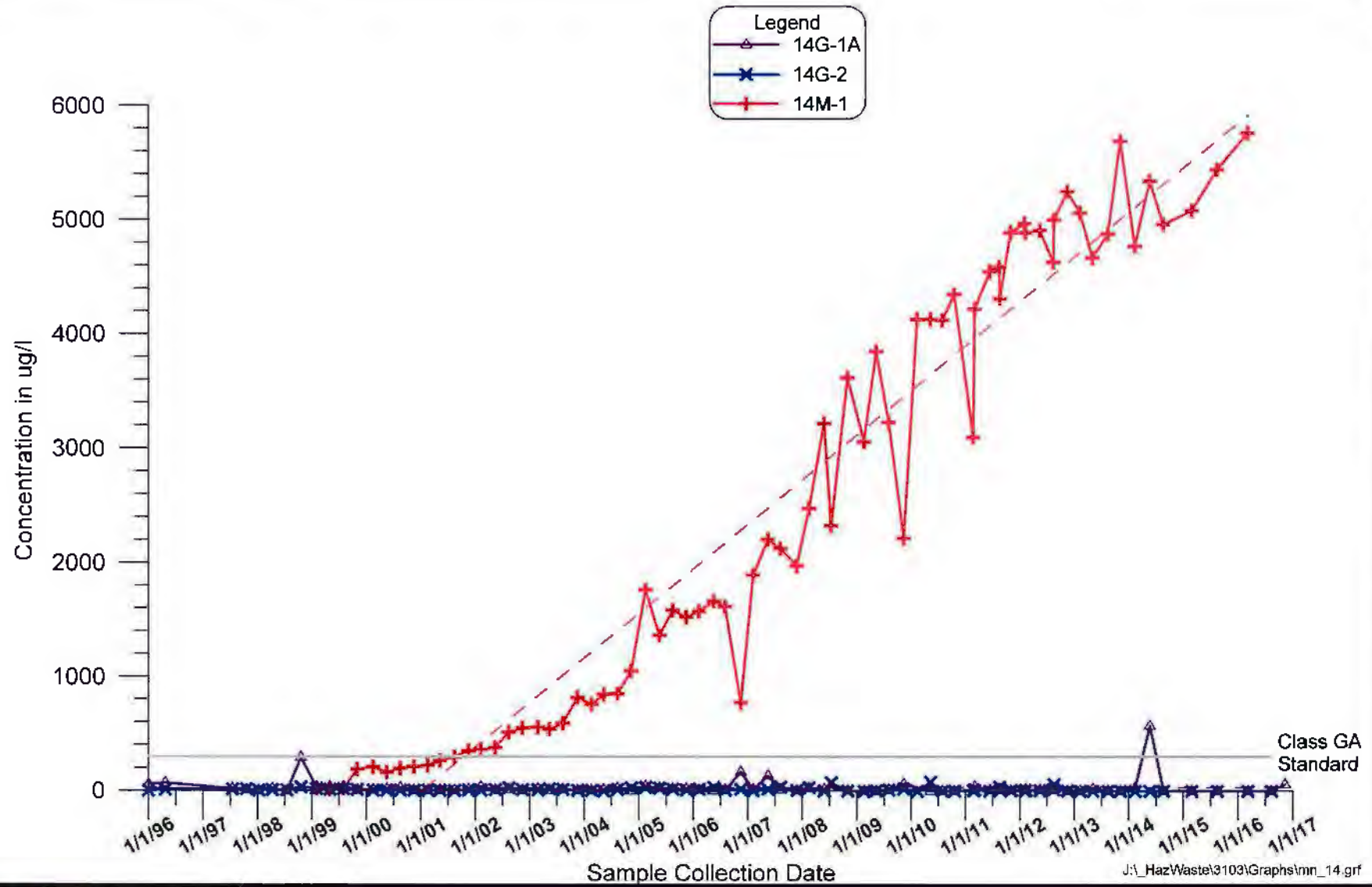

D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
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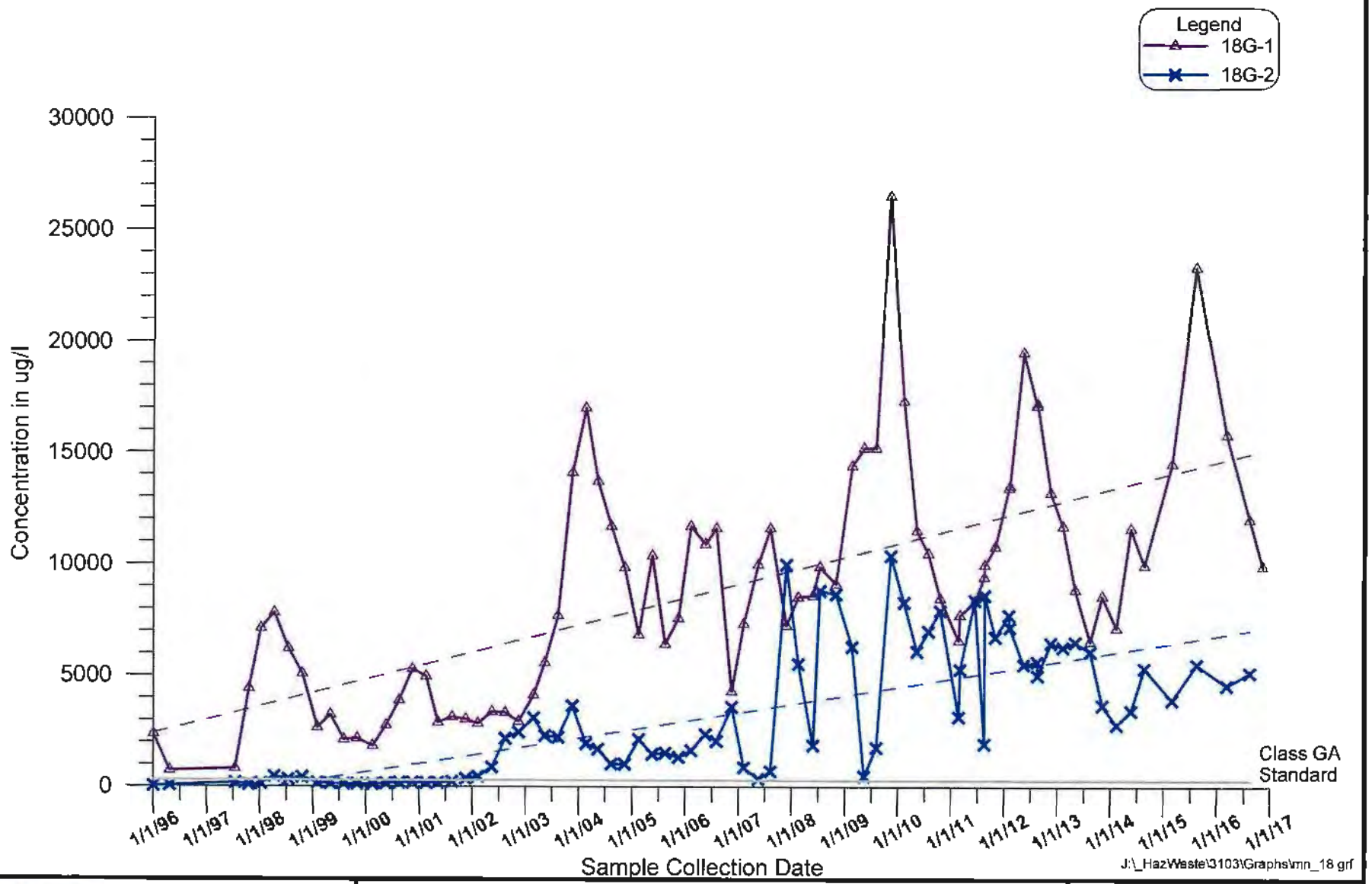

D&B ENGINEERS AND ARCHITECTS, P.C.

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

Appendix
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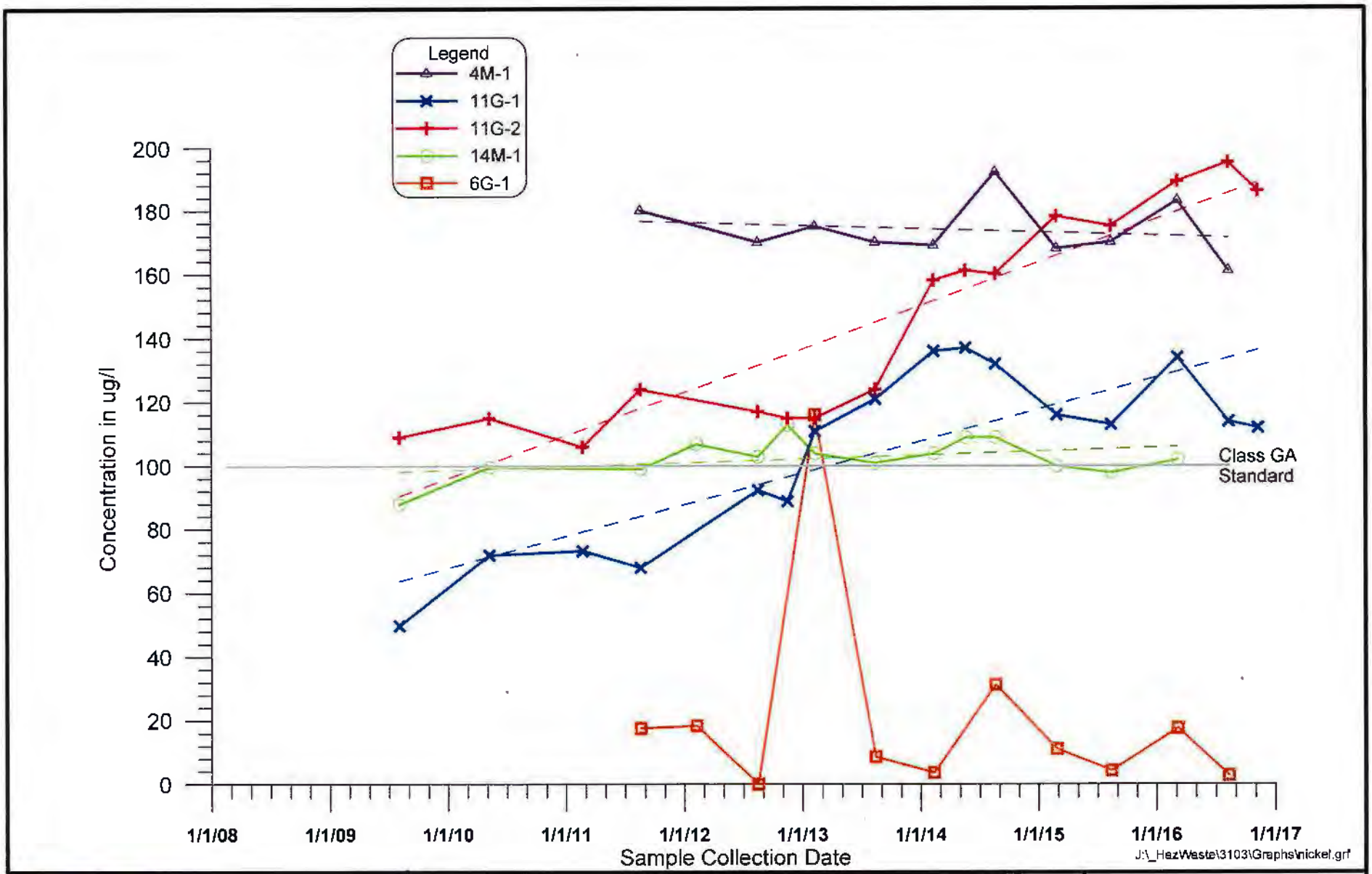
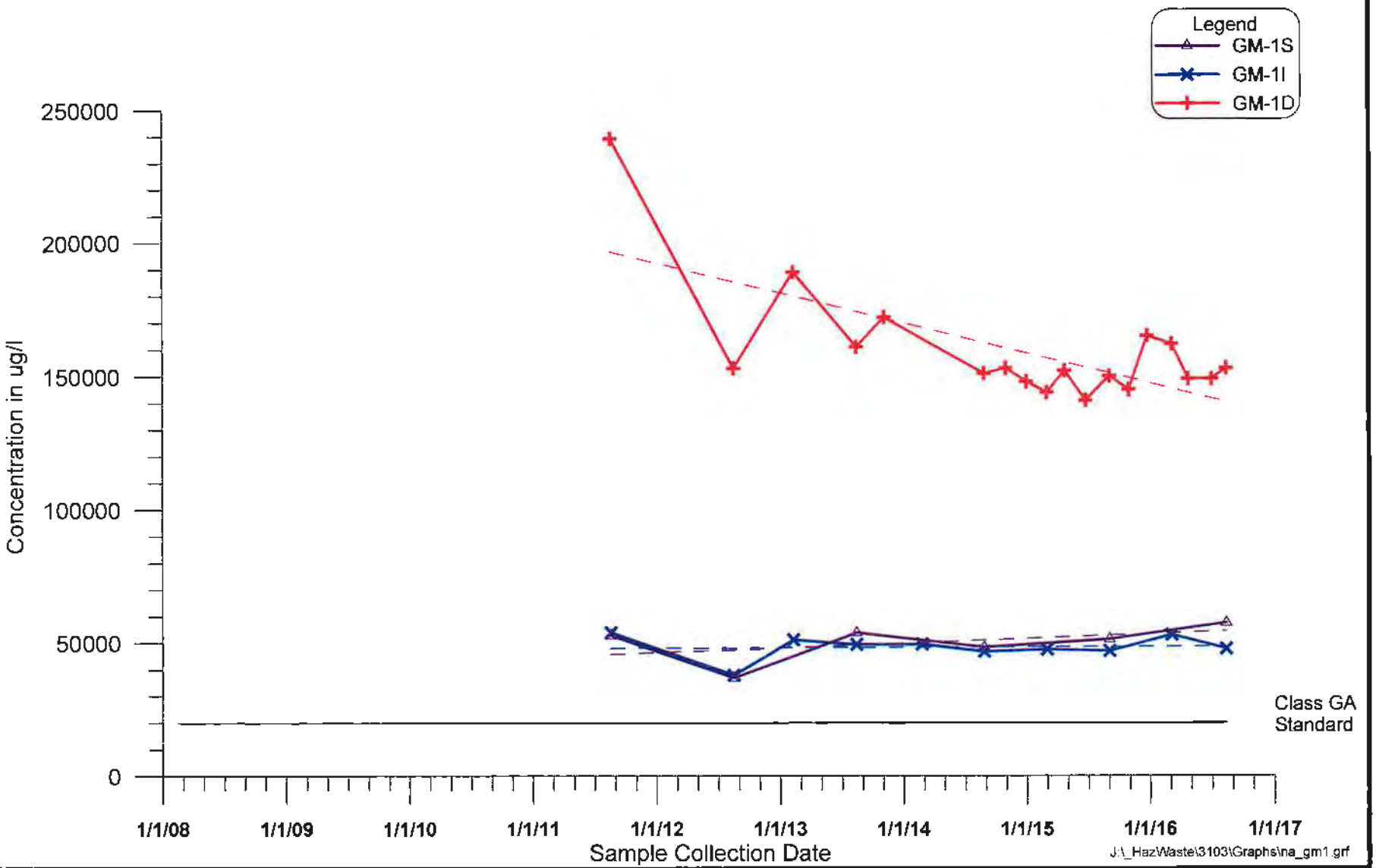


D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Nickel Data for Select Monitoring Wells

Appendix C



D&B ENGINEERS AND ARCHITECTS, P.C.

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

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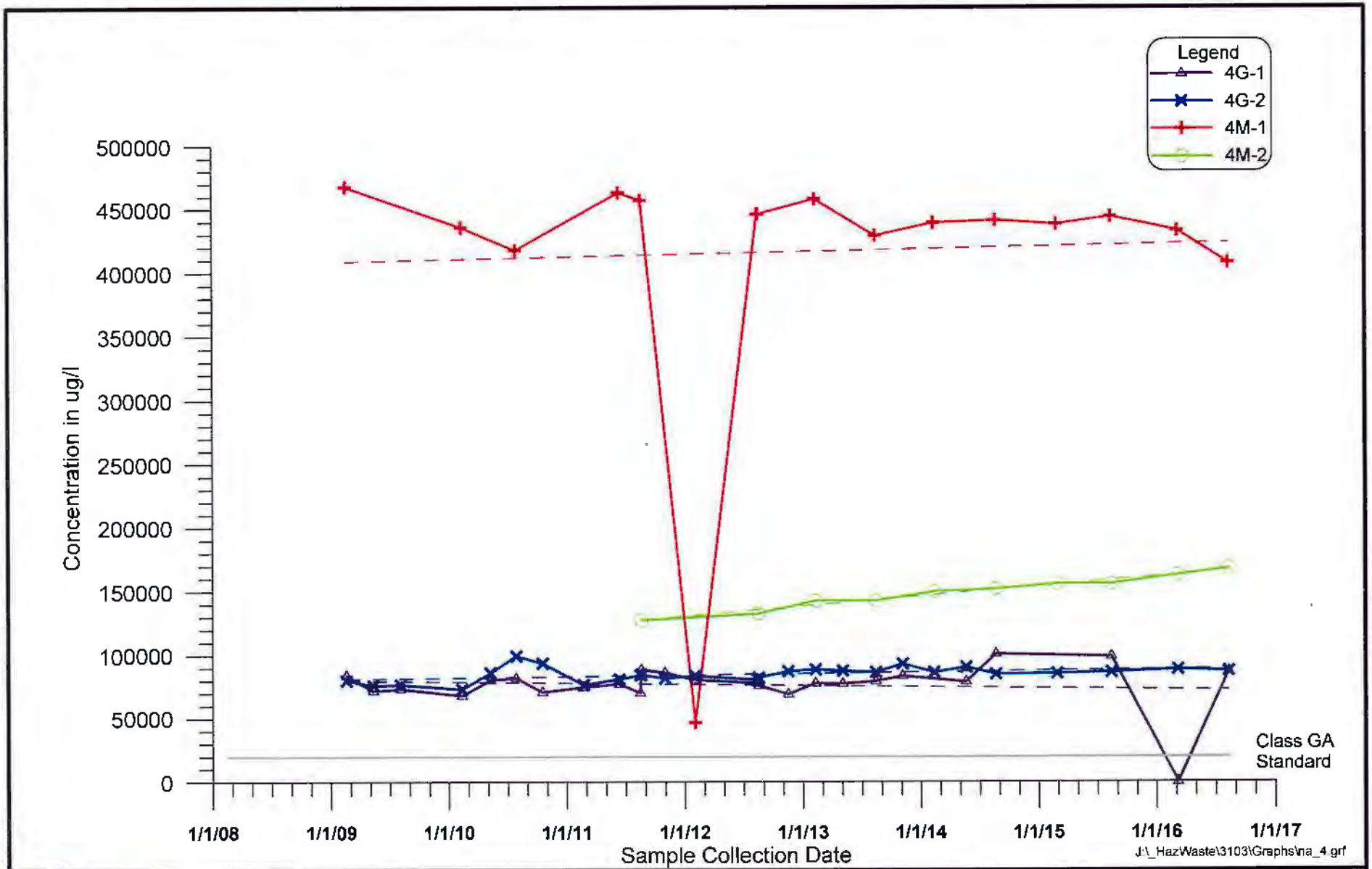

D&B ENGINEERS AND ARCHITECTS, P.C.

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

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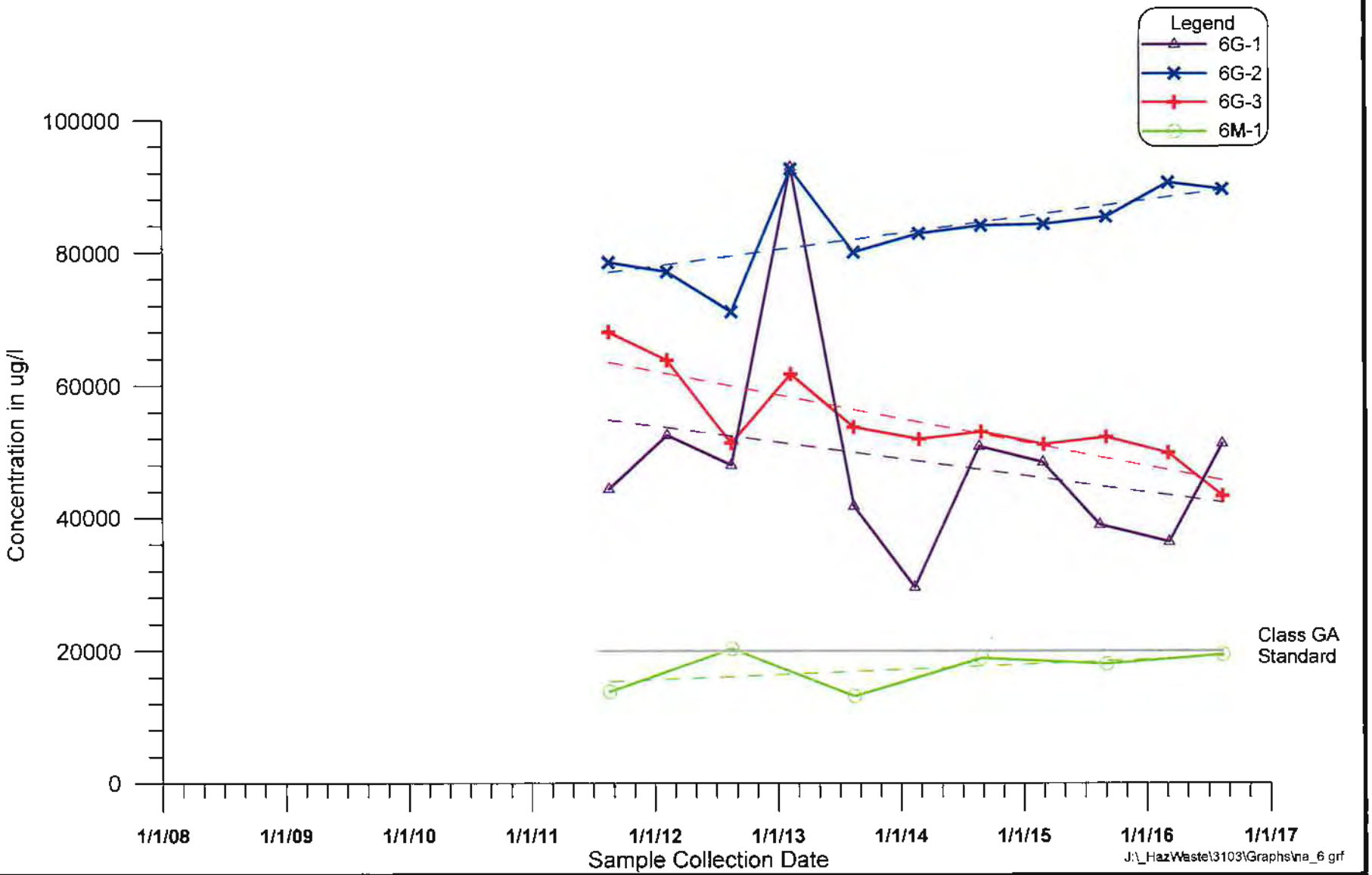

D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Sodium Data for Monitoring Well Cluster 6

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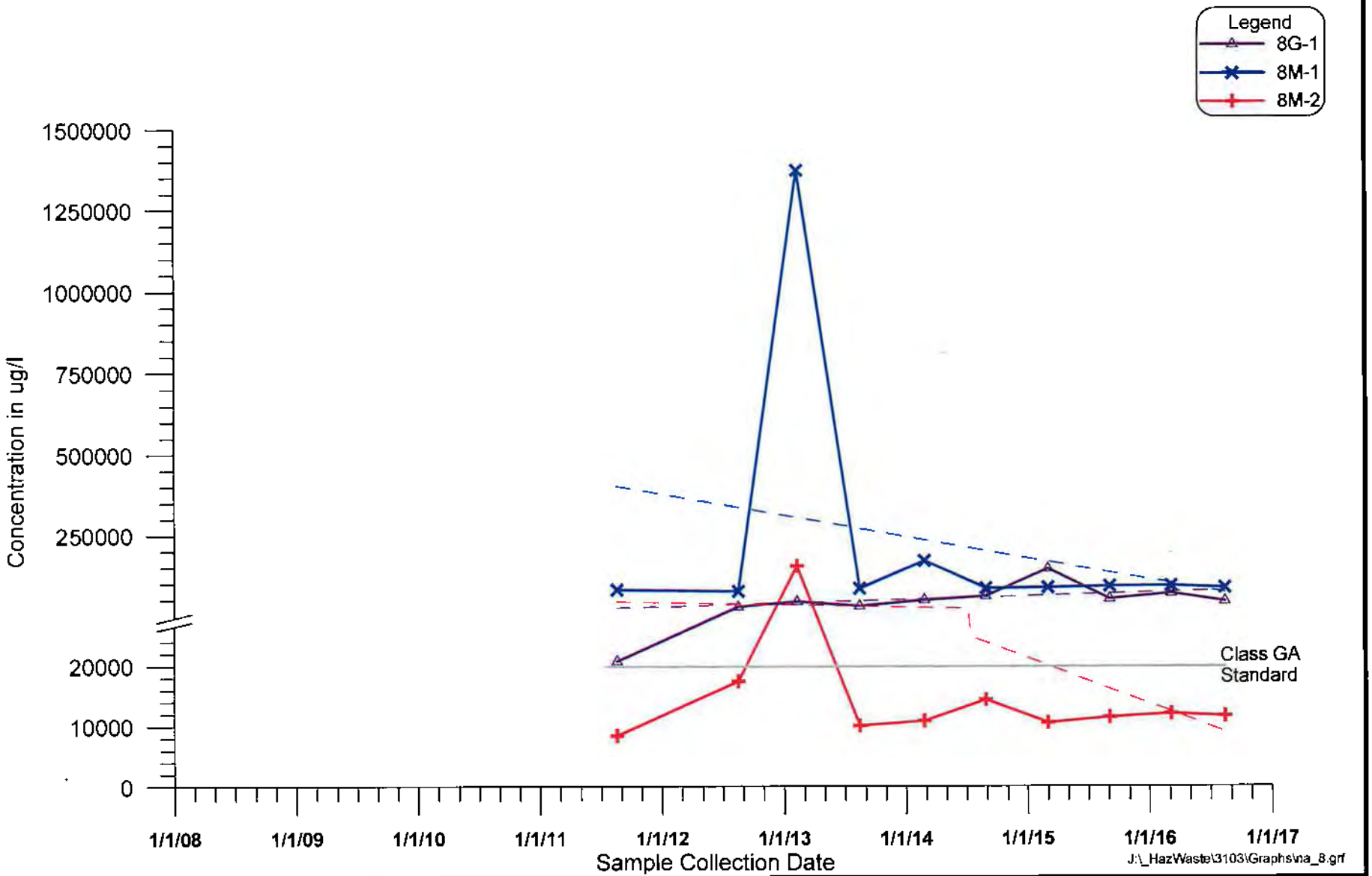
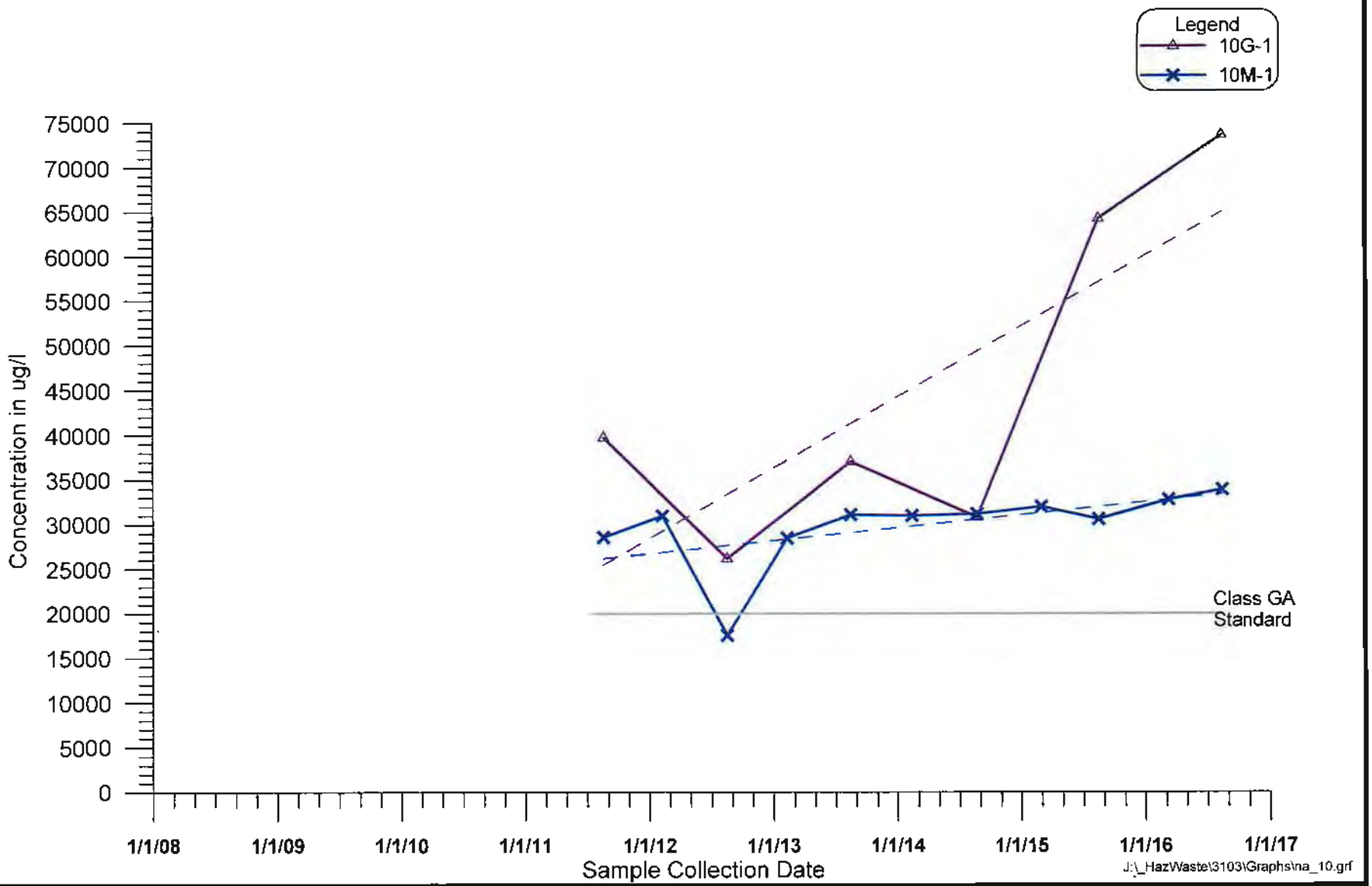


D&B ENGINEERS AND ARCHITECTS, P.C.

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

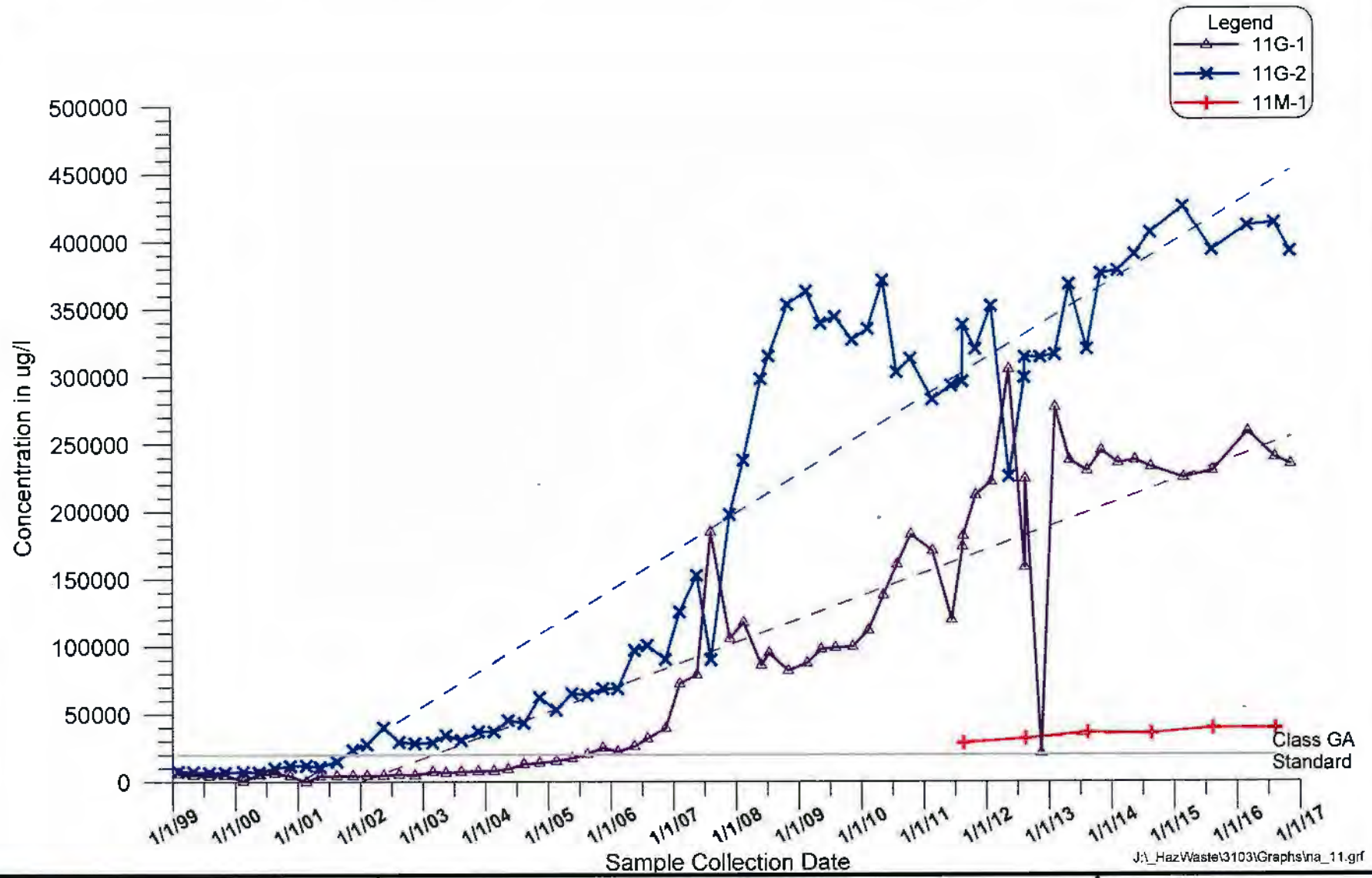
Appendix
C



D&B ENGINEERS AND ARCHITECTS, P.C.

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

Appendix
C



D&B ENGINEERS AND ARCHITECTS, P.C.

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

Appendix
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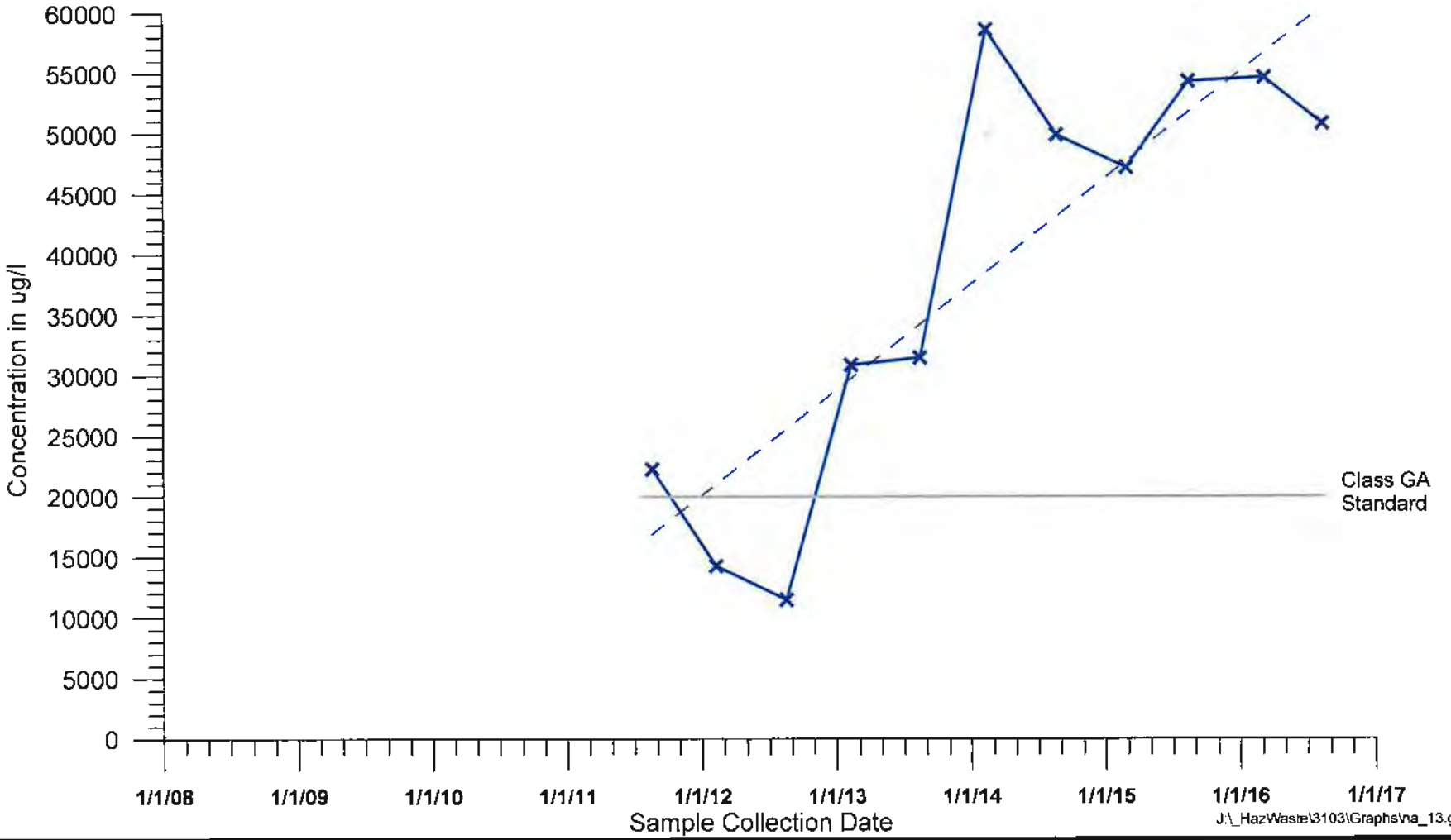
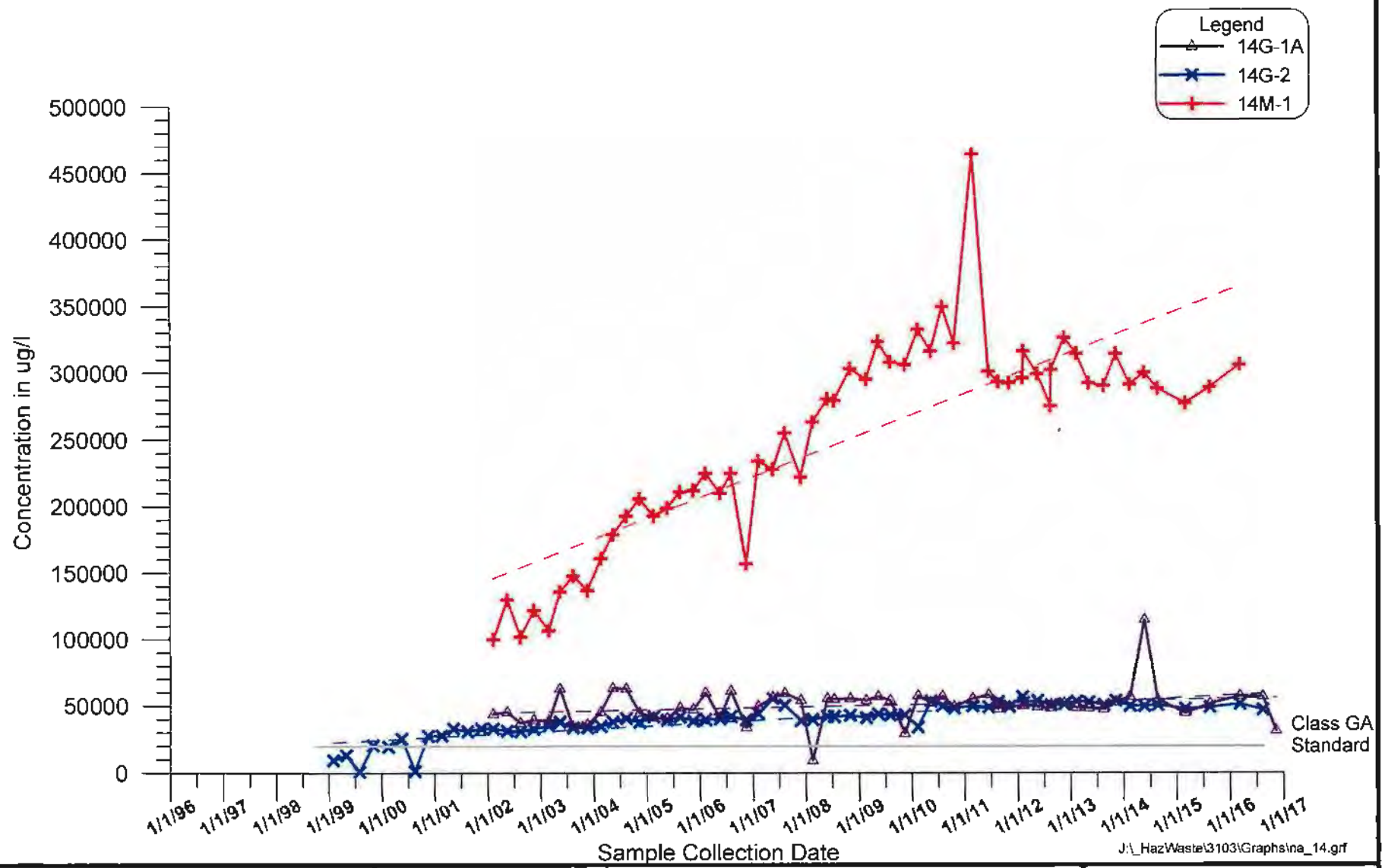


D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Sodium Data for Monitoring Well 13M-1

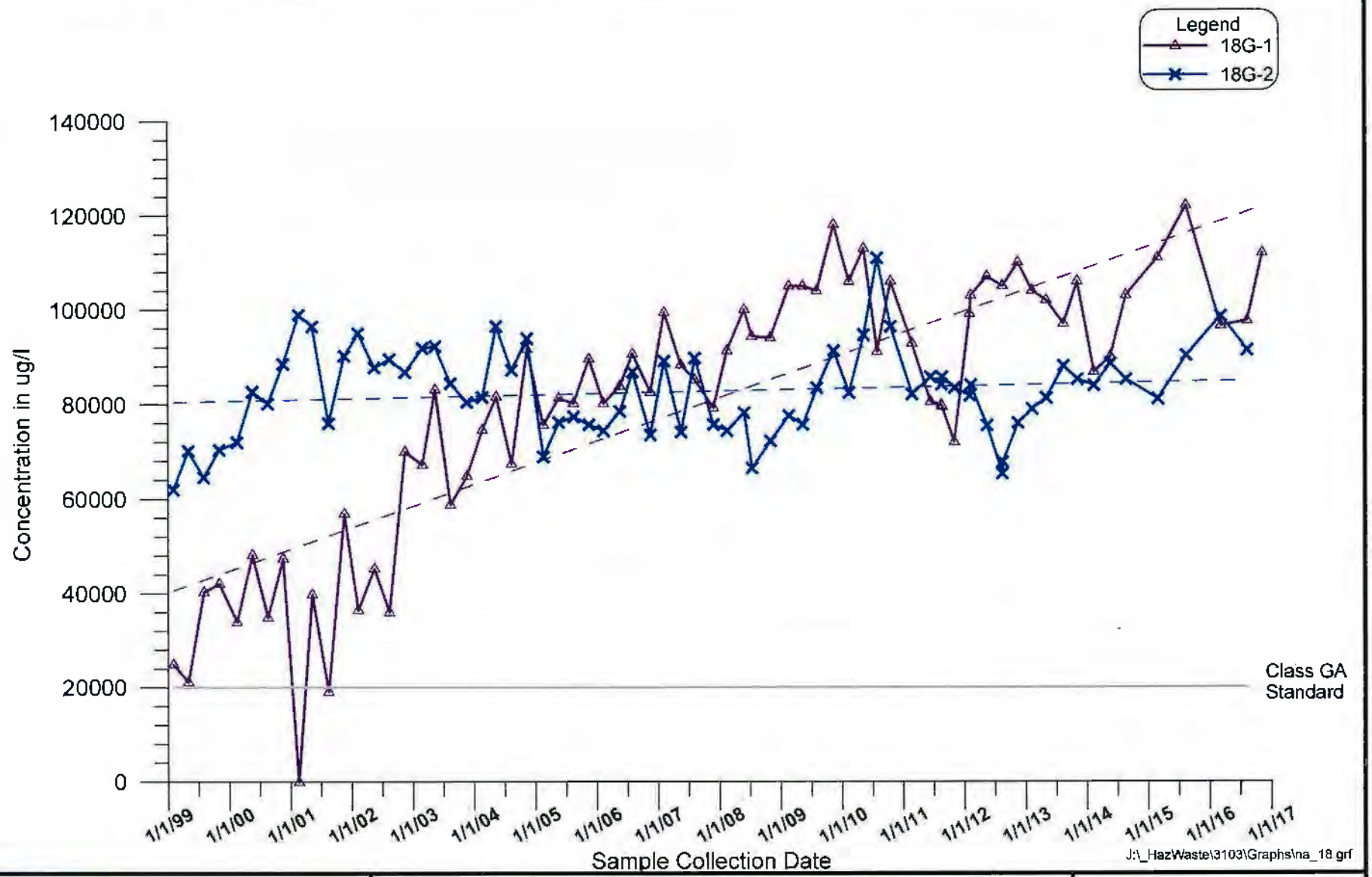
Appendix
C



D&B ENGINEERS AND ARCHITECTS, P.C.

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

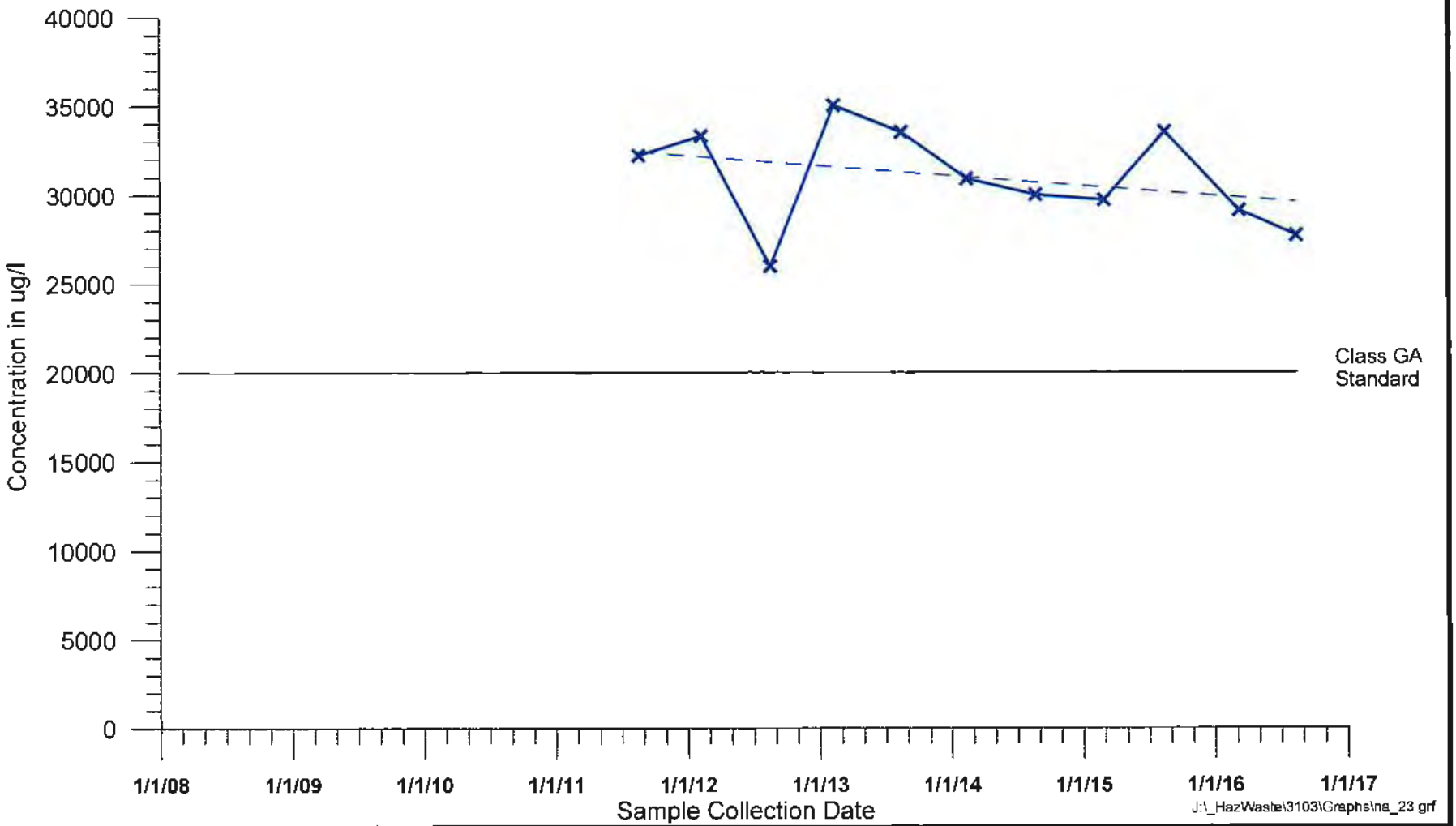
Appendix C



D&B Engineers and Architects, P.C.

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

Appendix
C



D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Sodium Data for Monitoring Well 23M-1

Appendix
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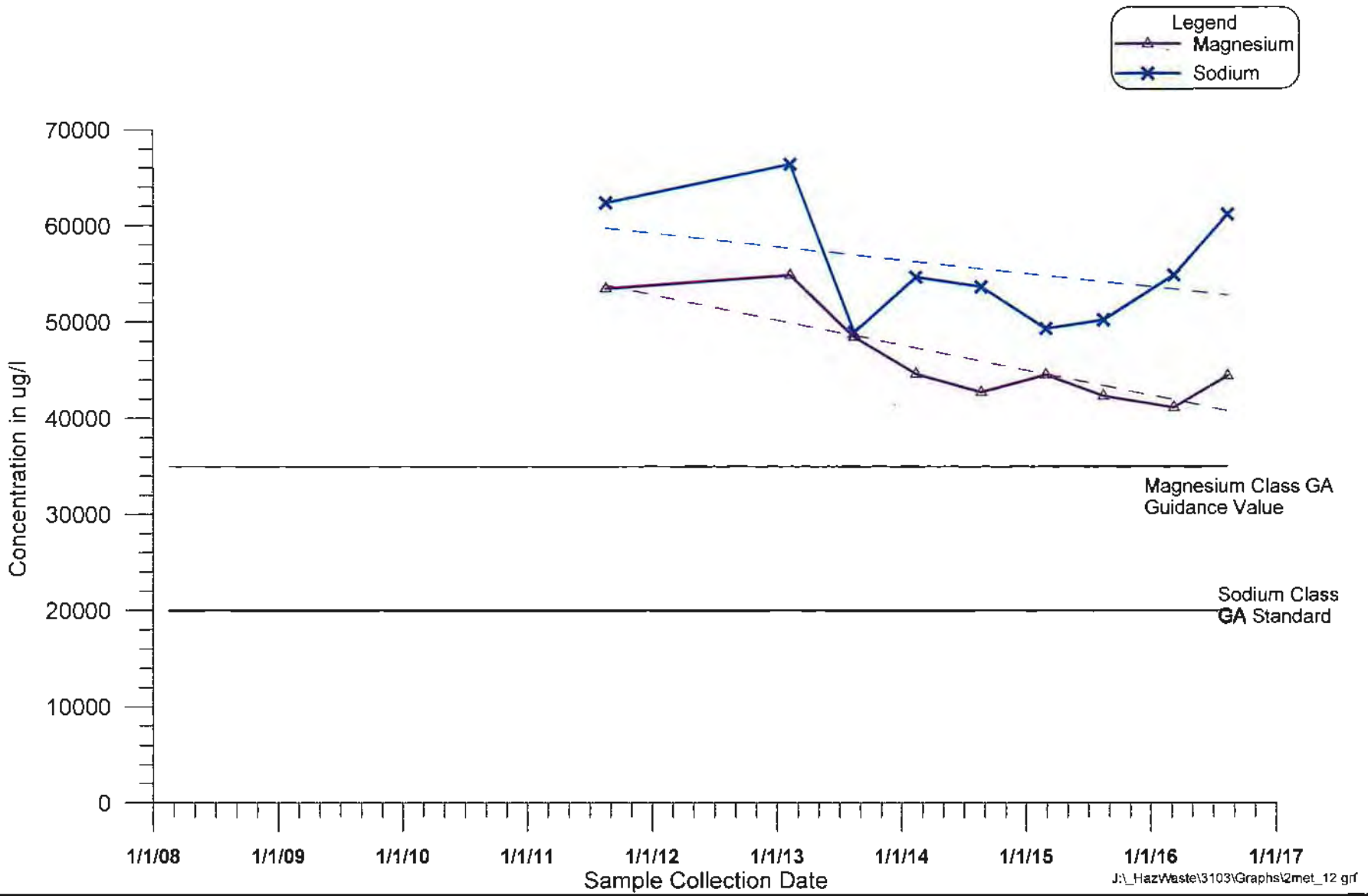

D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Magnesium and Sodium Data
for Monitoring Well 12M-1

Appendix
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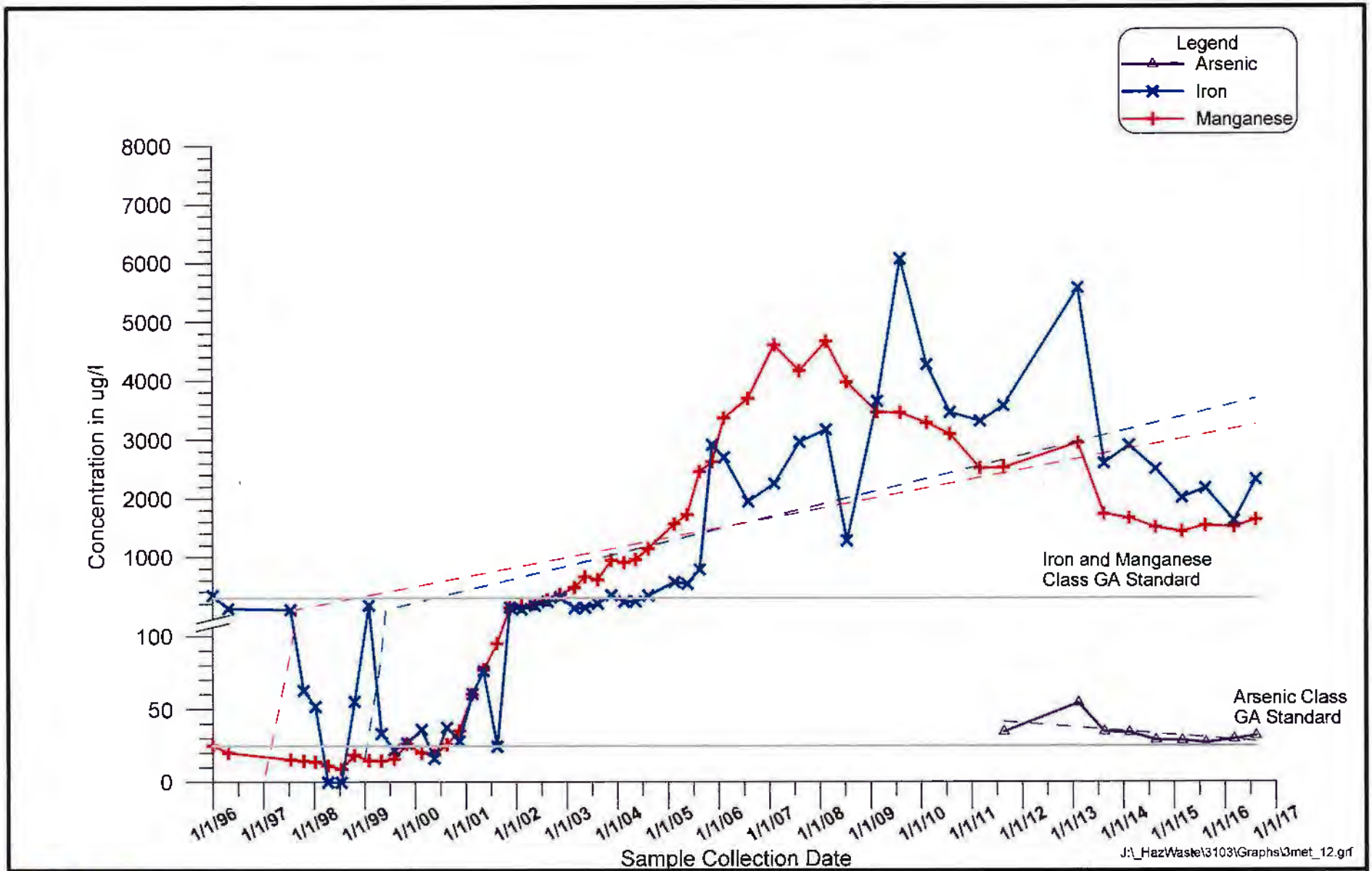

D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Arsenic, Iron and Manganese Data
for Monitoring Well 12M-1

Appendix
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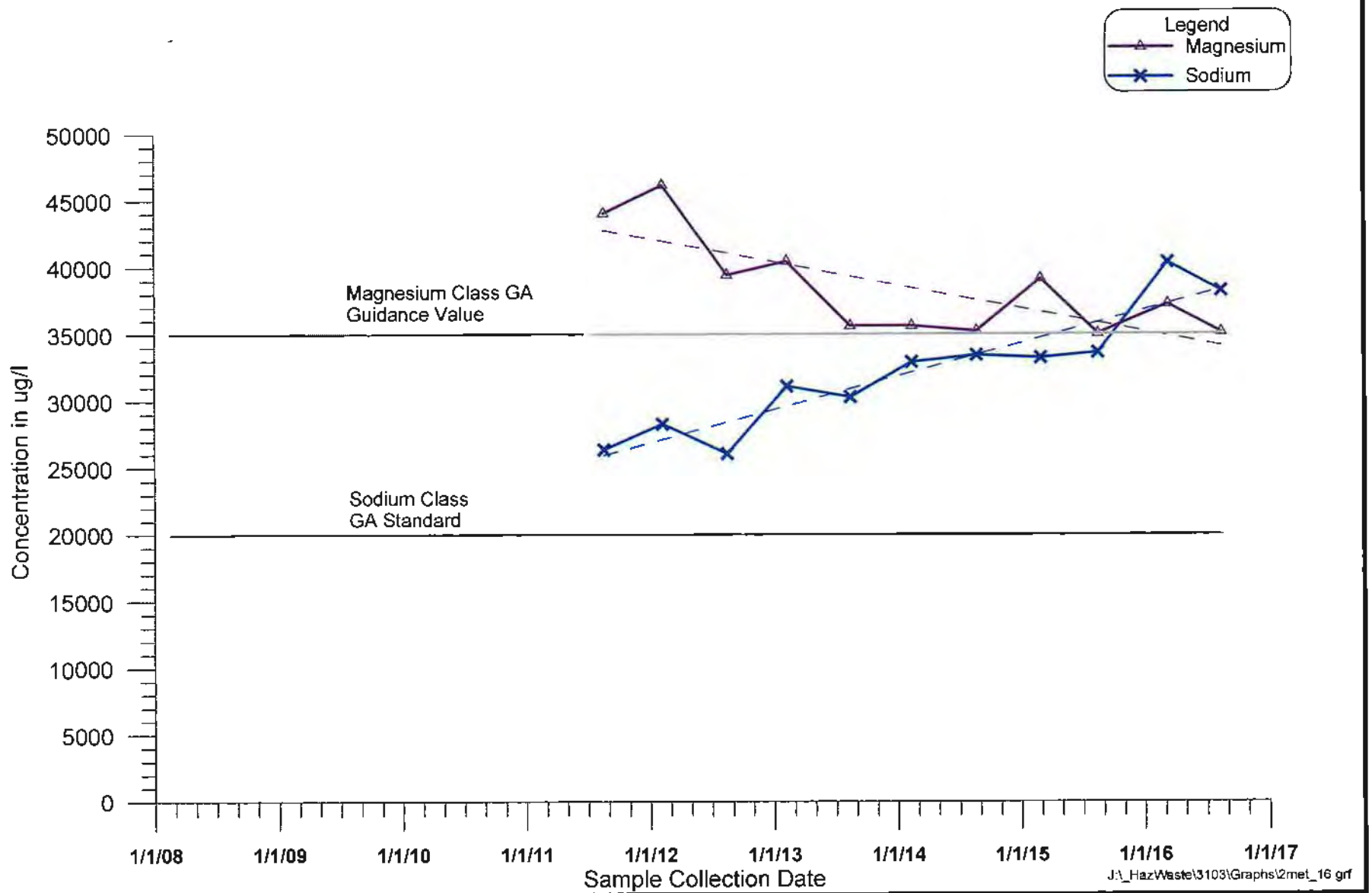

D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Magnesium and Sodium Data
for Monitoring Well 16M-1

Appendix
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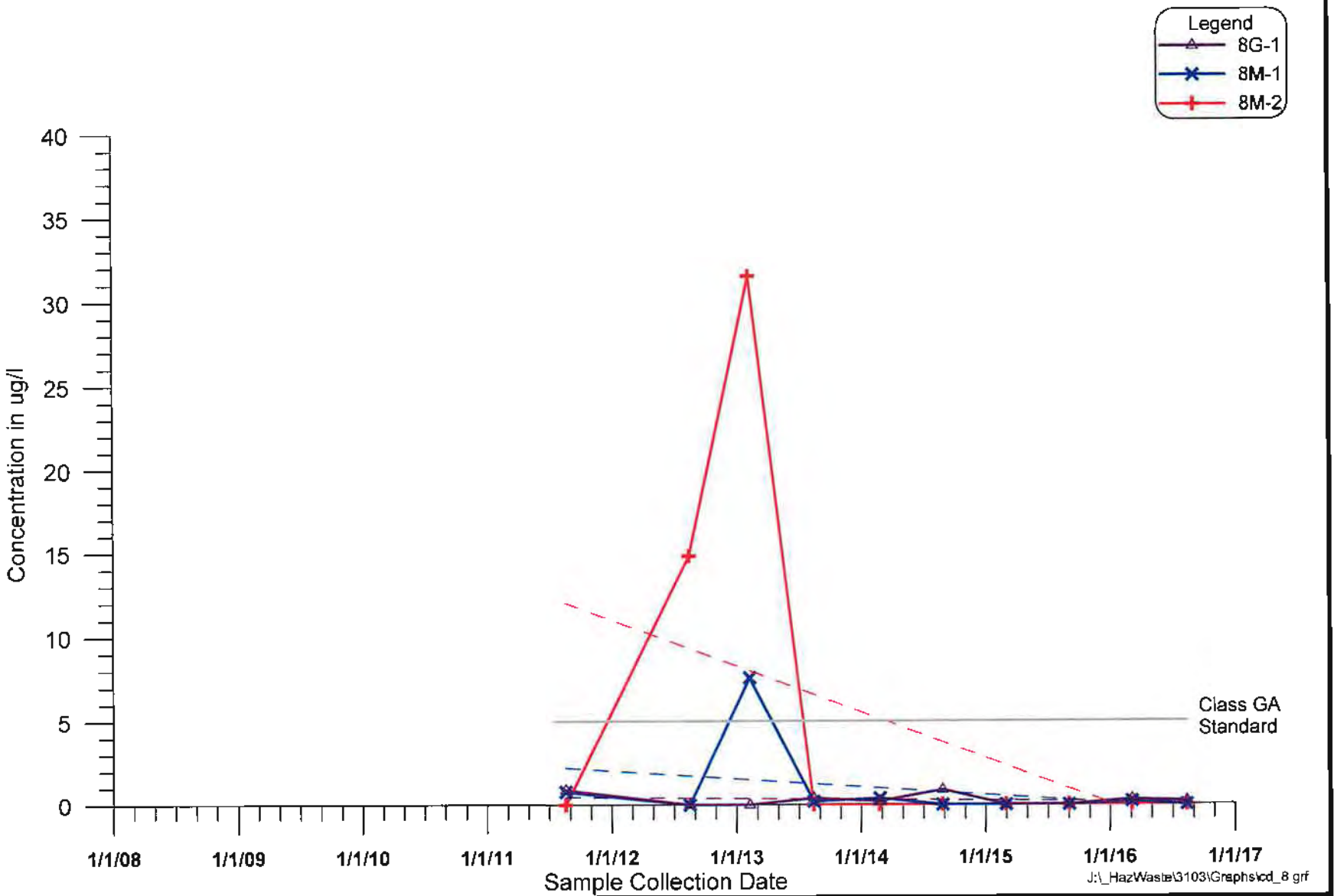
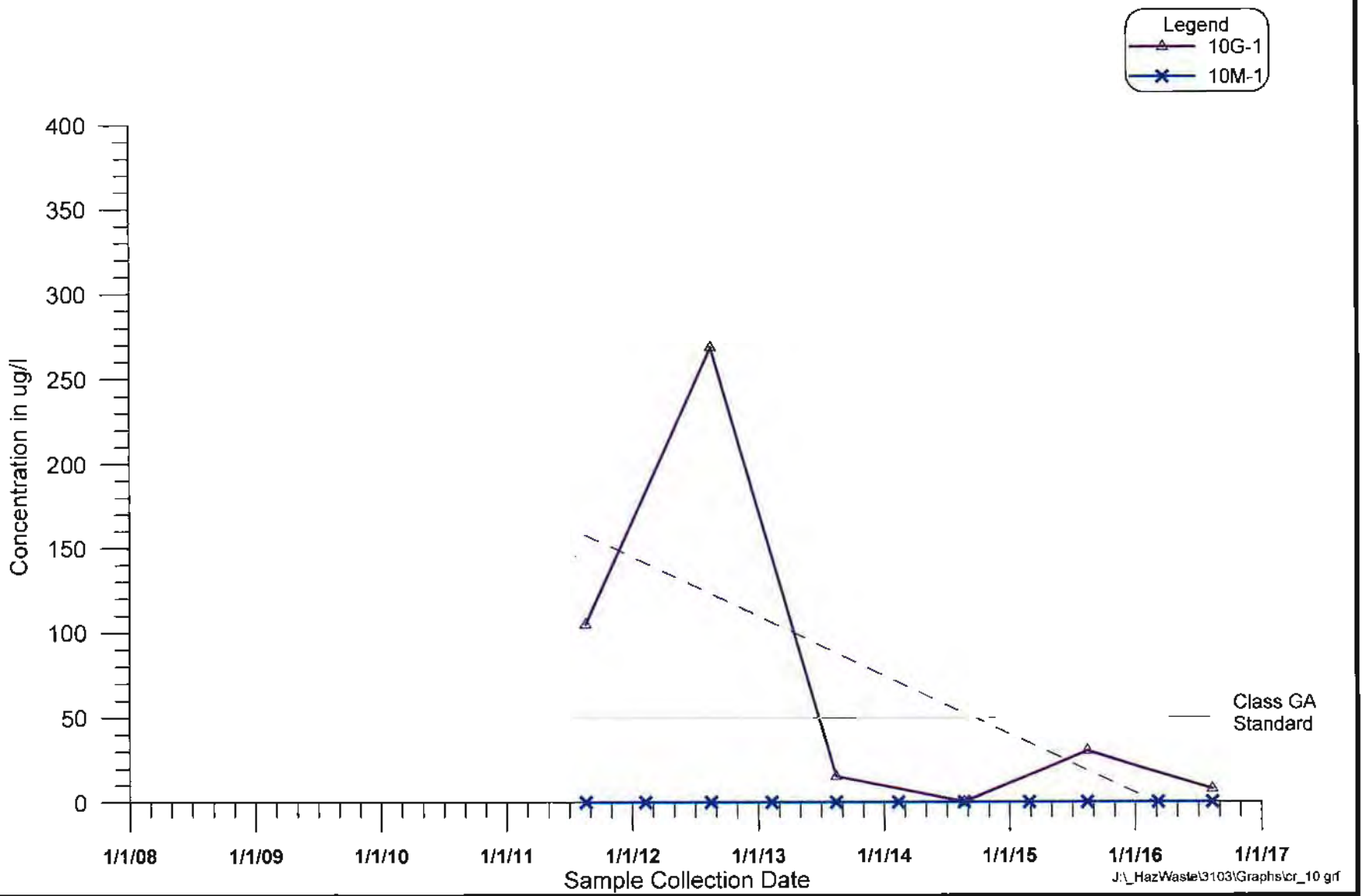


D&B Engineers and Architects, P.C.

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

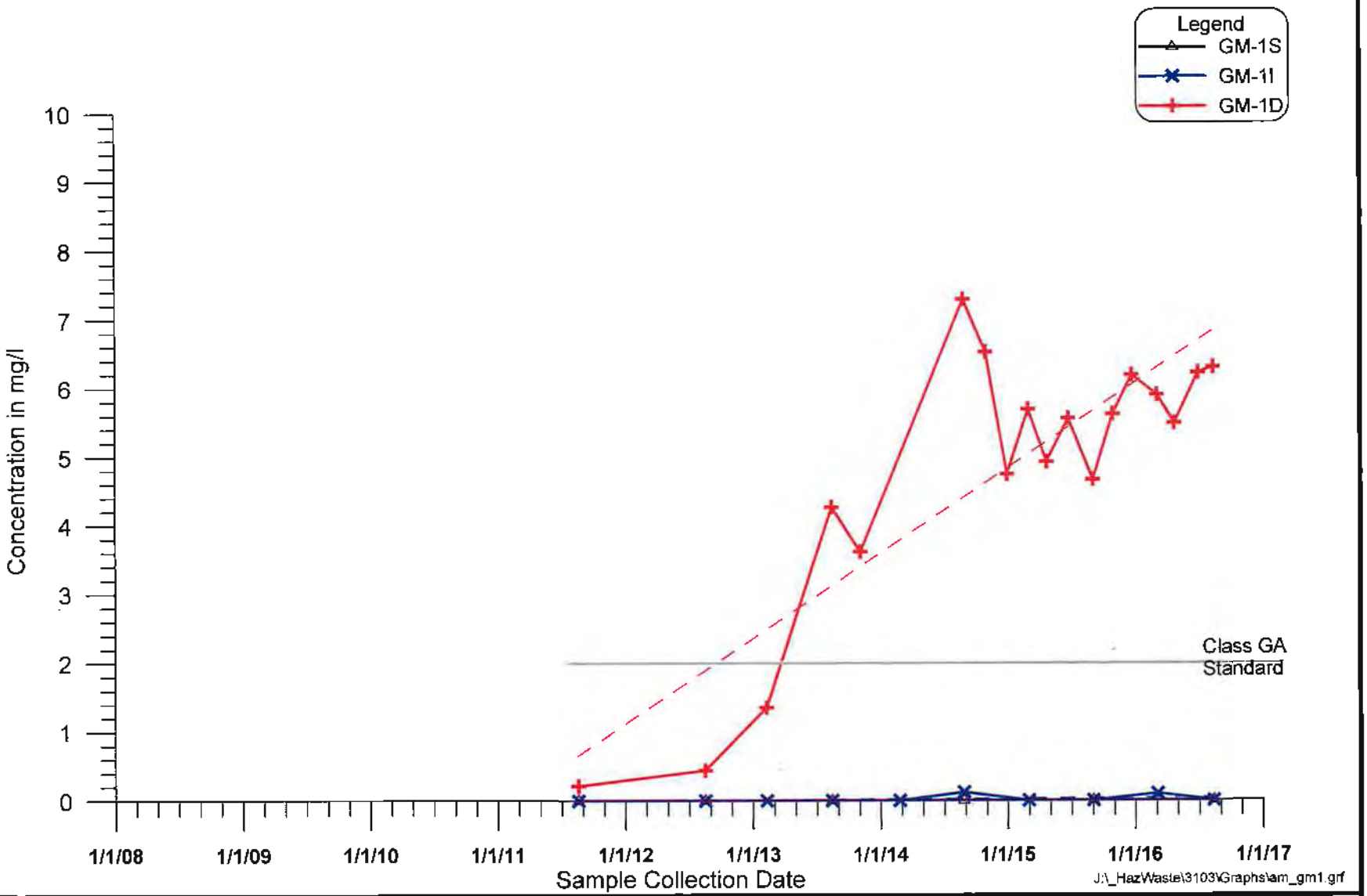
Appendix
C



D&B ENGINEERS AND ARCHITECTS, P.C.

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

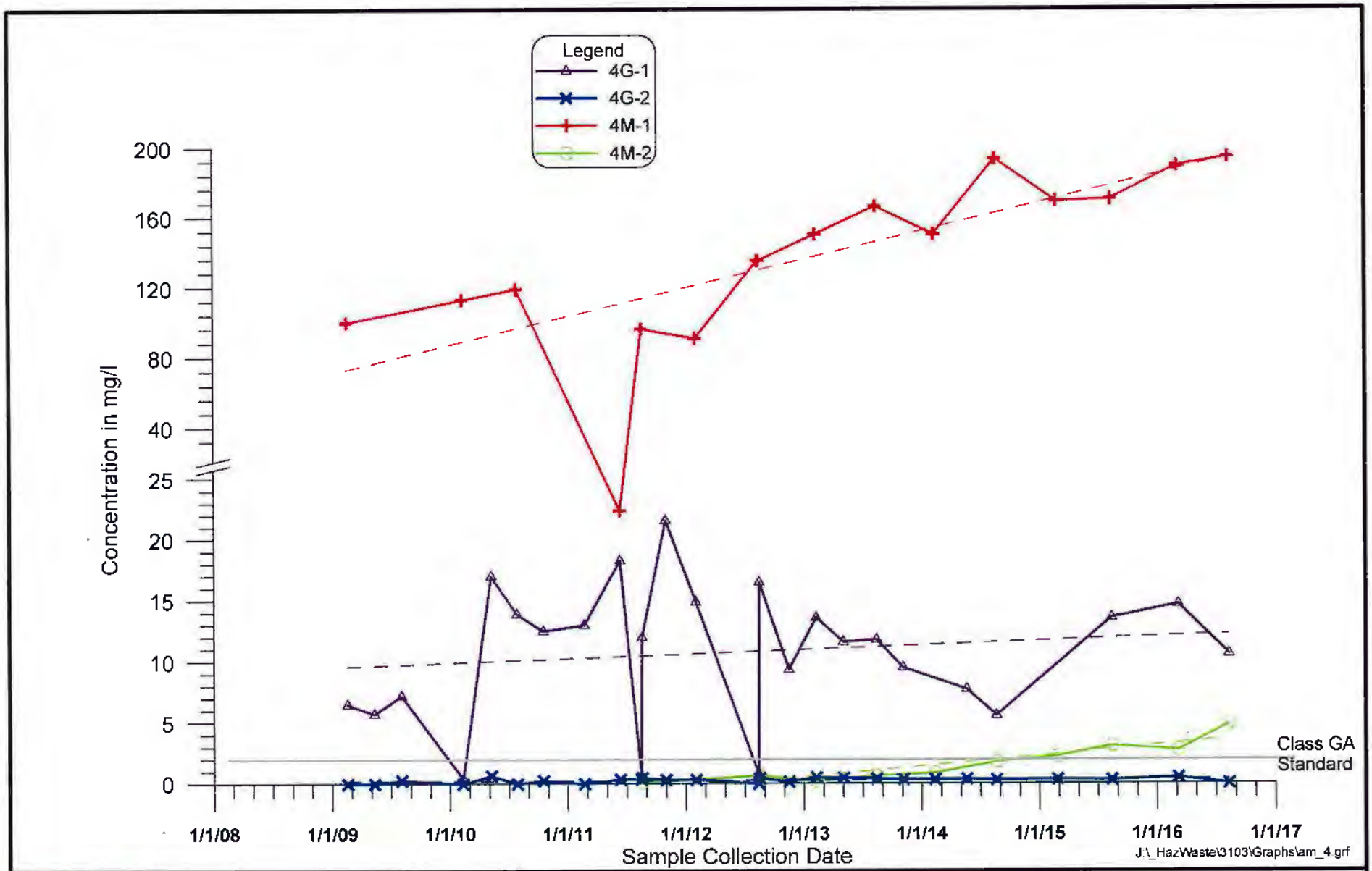
Appendix
C



D&B ENGINEERS AND ARCHITECTS, P.C.

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

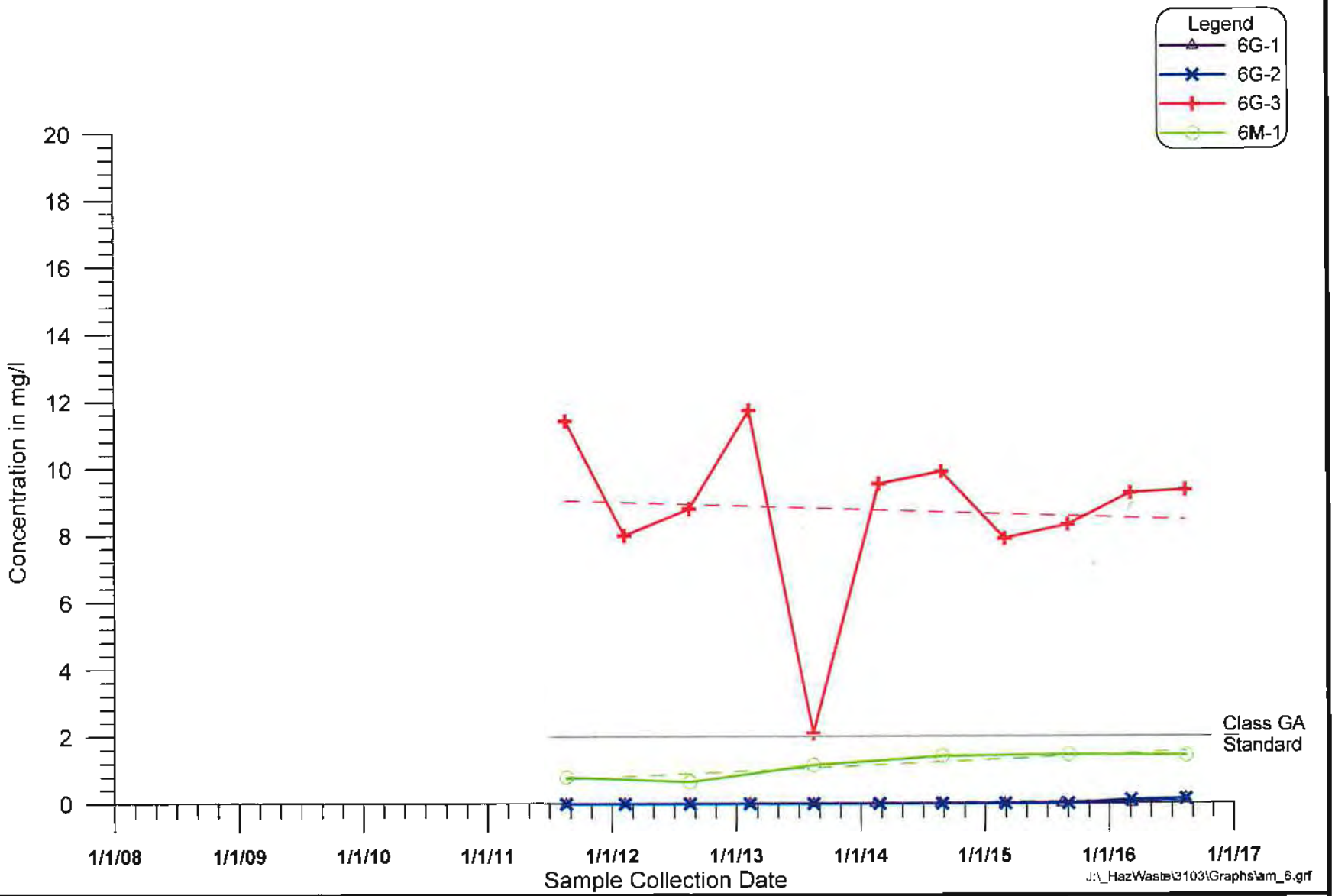
Appendix
C



D&B ENGINEERS AND ARCHITECTS, P.C.

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

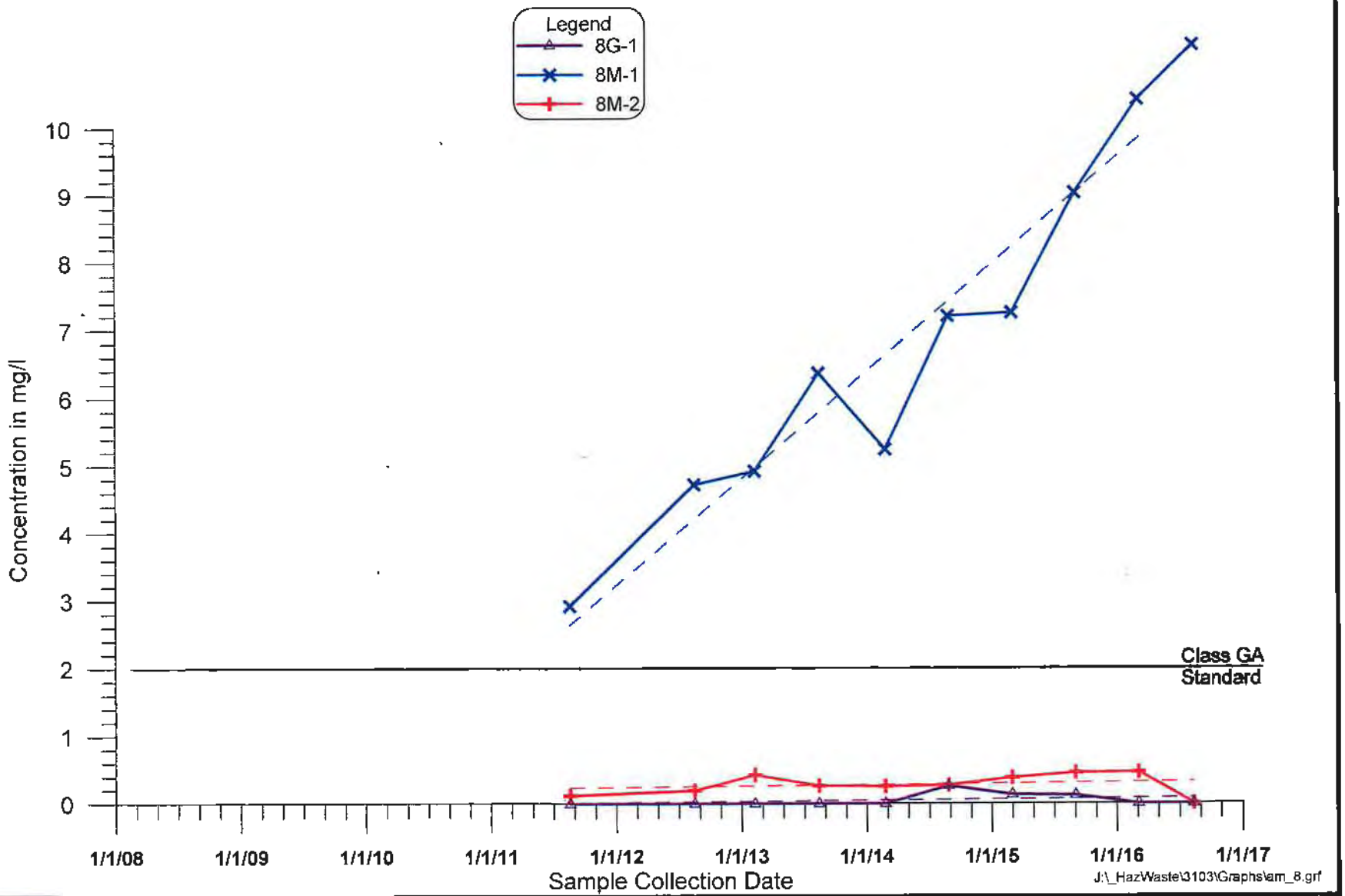
Appendix
C



D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Ammonia Data for Monitoring Well Cluster 6

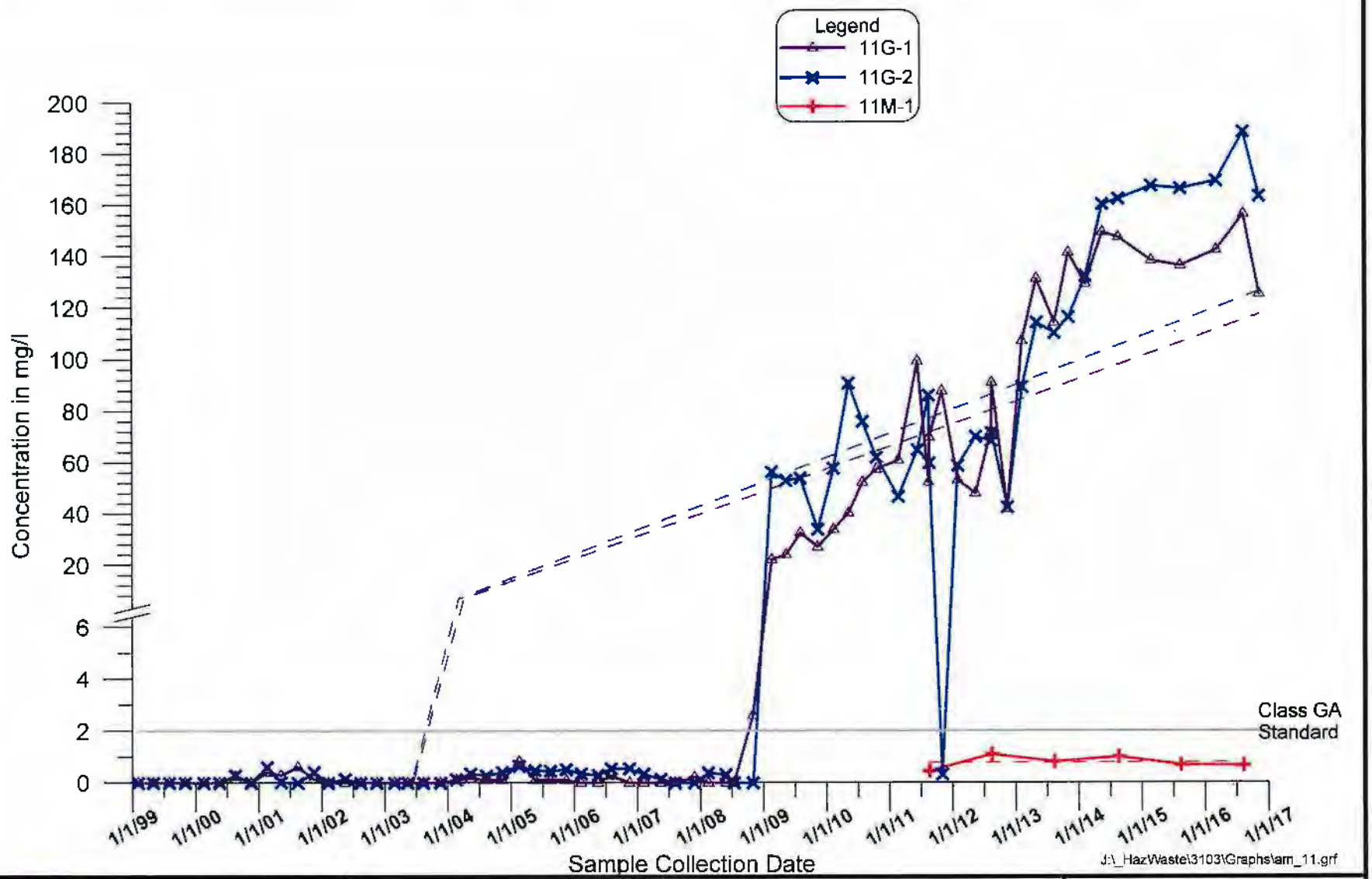
Appendix
C



D&B ENGINEERS AND ARCHITECTS, P.C.

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

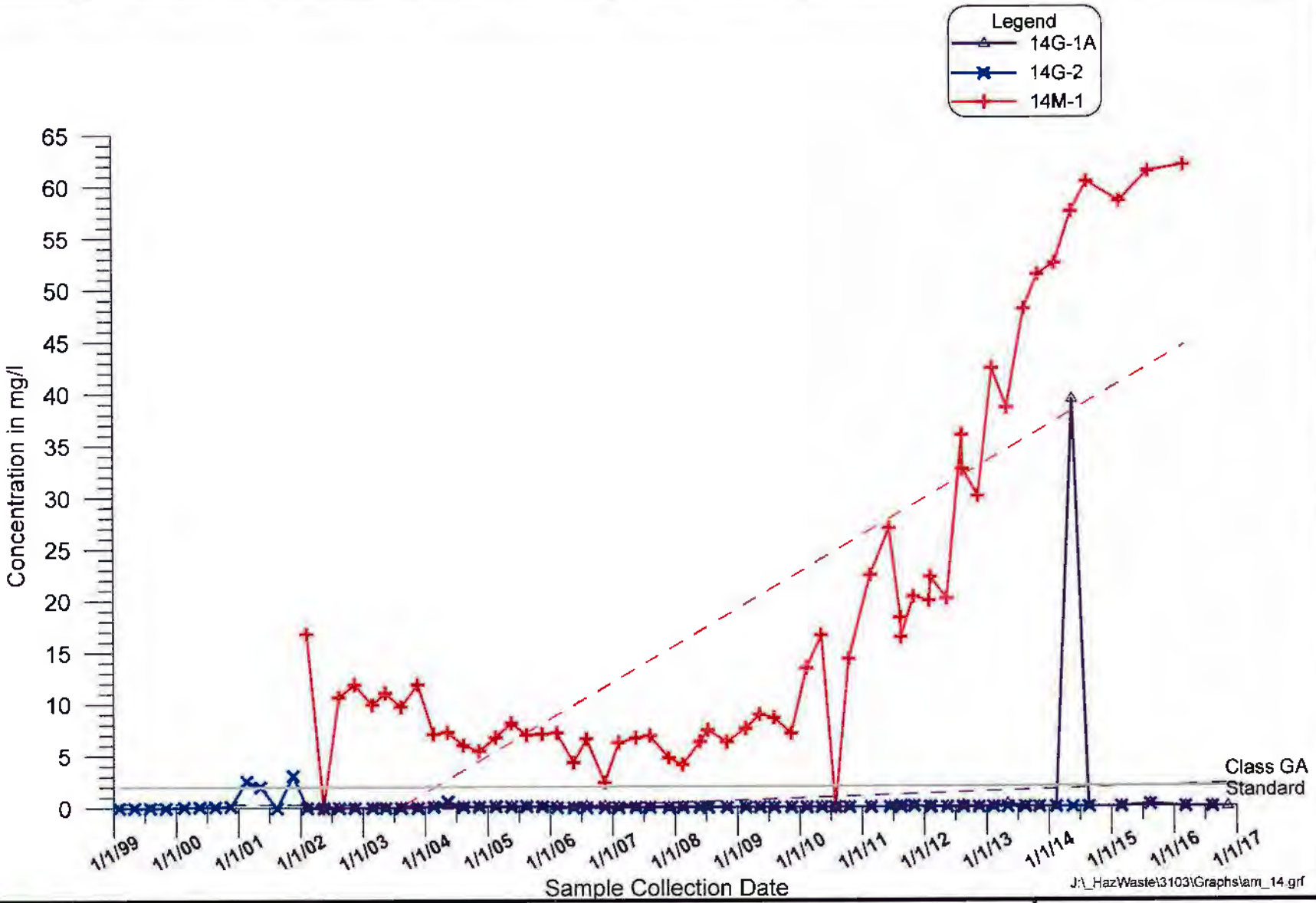
Appendix
C



D&B ENGINEERS AND ARCHITECTS, P.C.

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

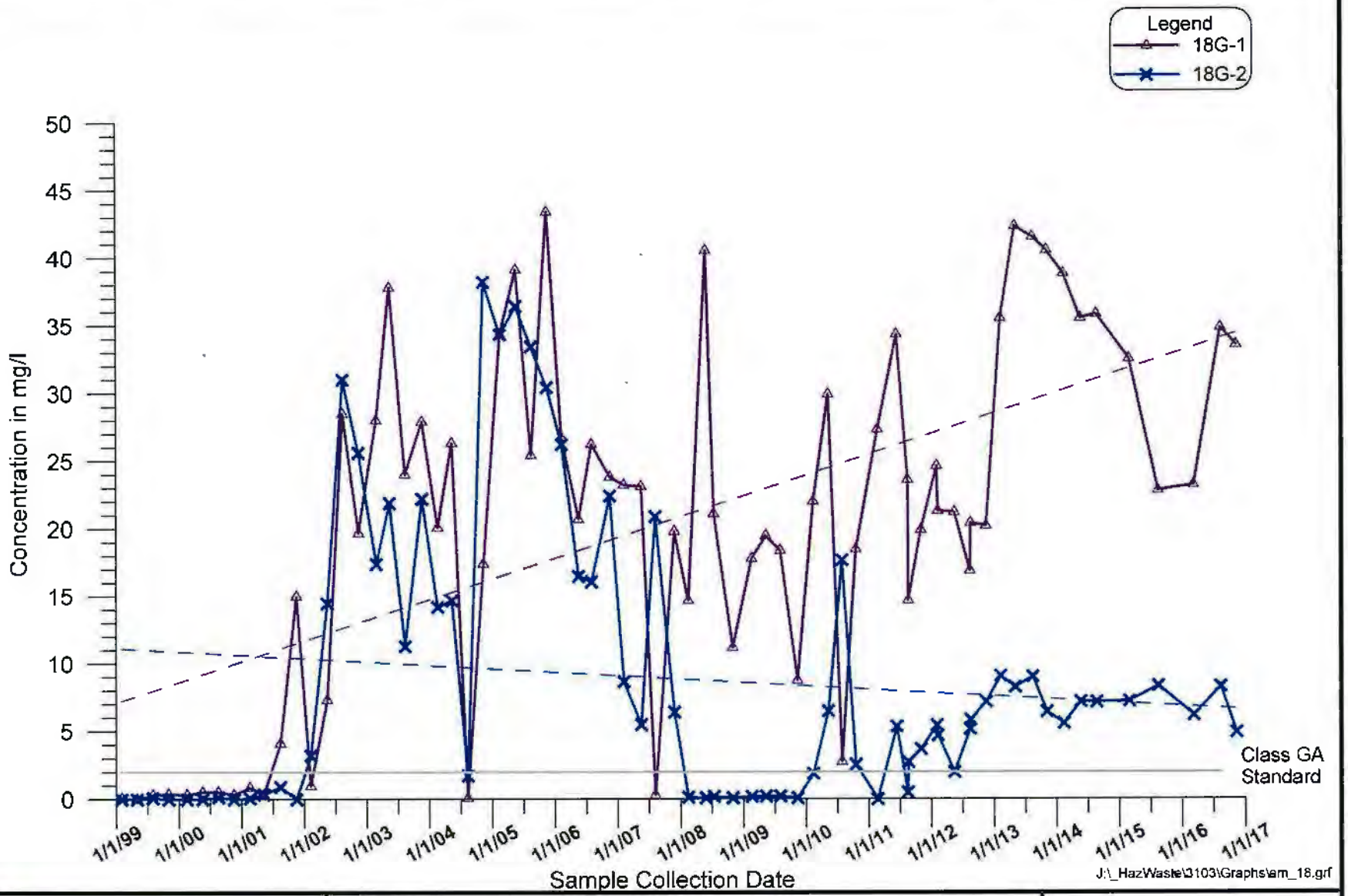
Appendix
C



D&B ENGINEERS AND ARCHITECTS, P.C.

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

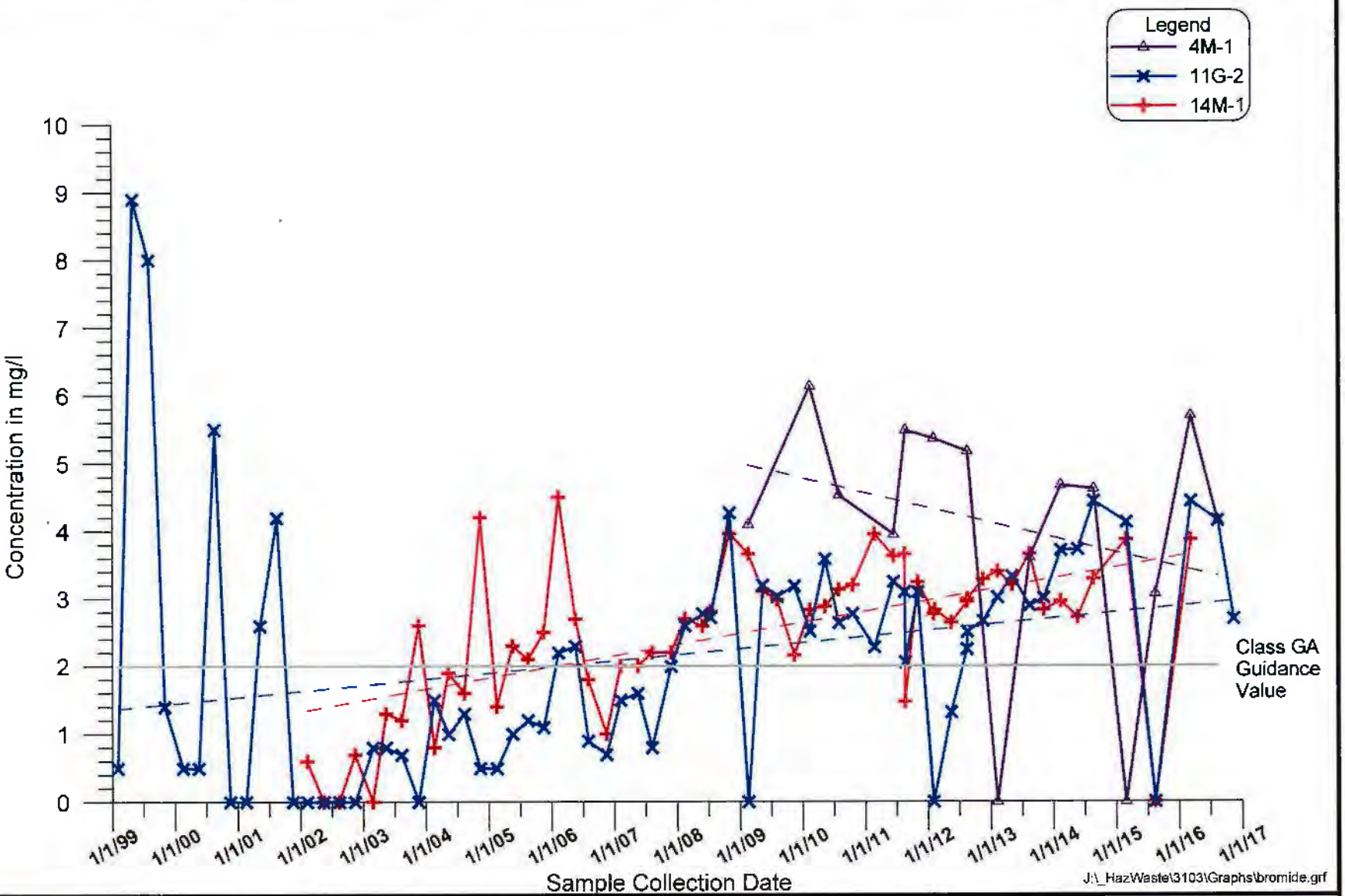
Appendix C



D&B ENGINEERS AND ARCHITECTS, P.C.

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

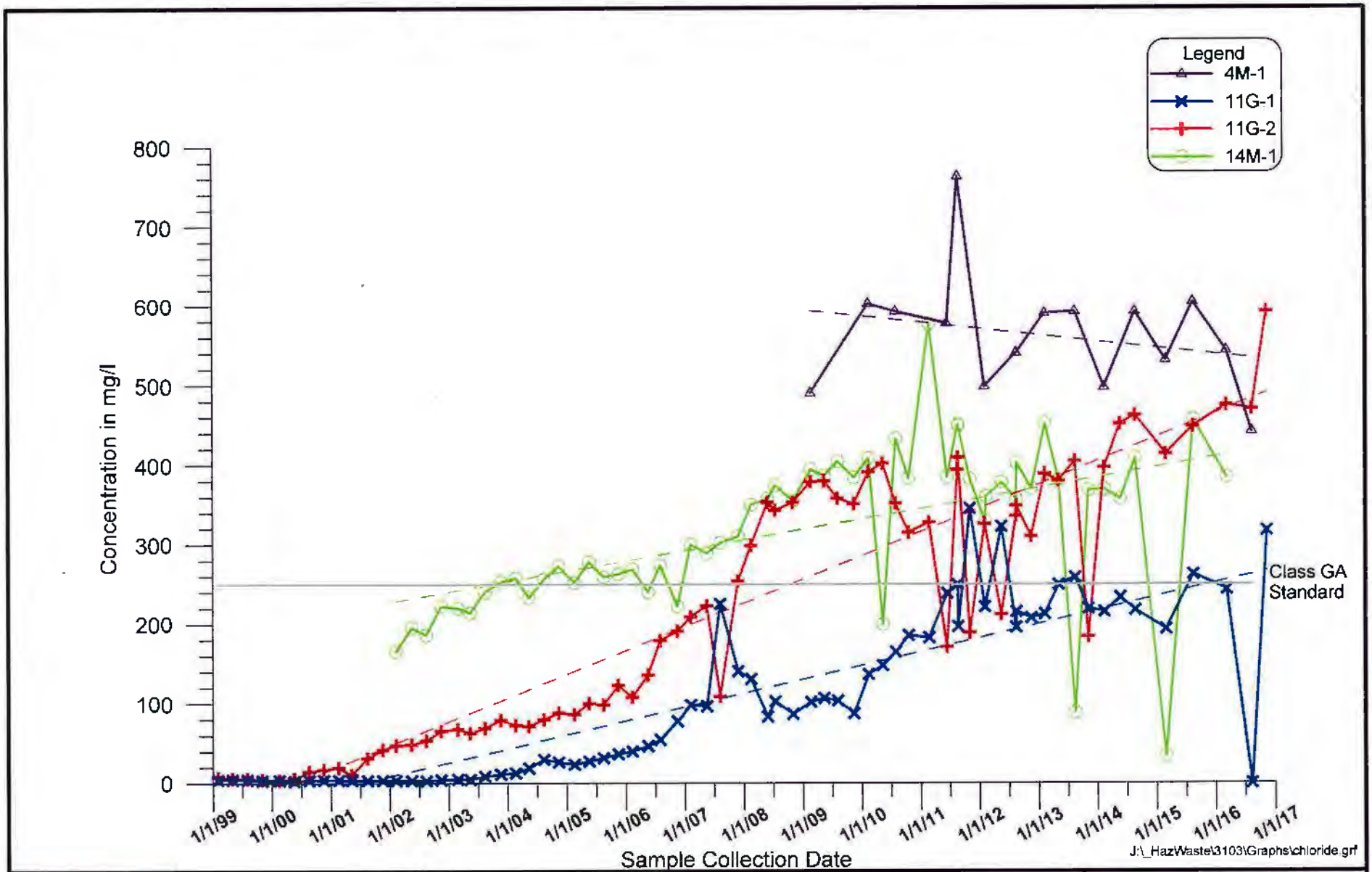
Appendix
C



D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Bromide Data for Select Monitoring Wells

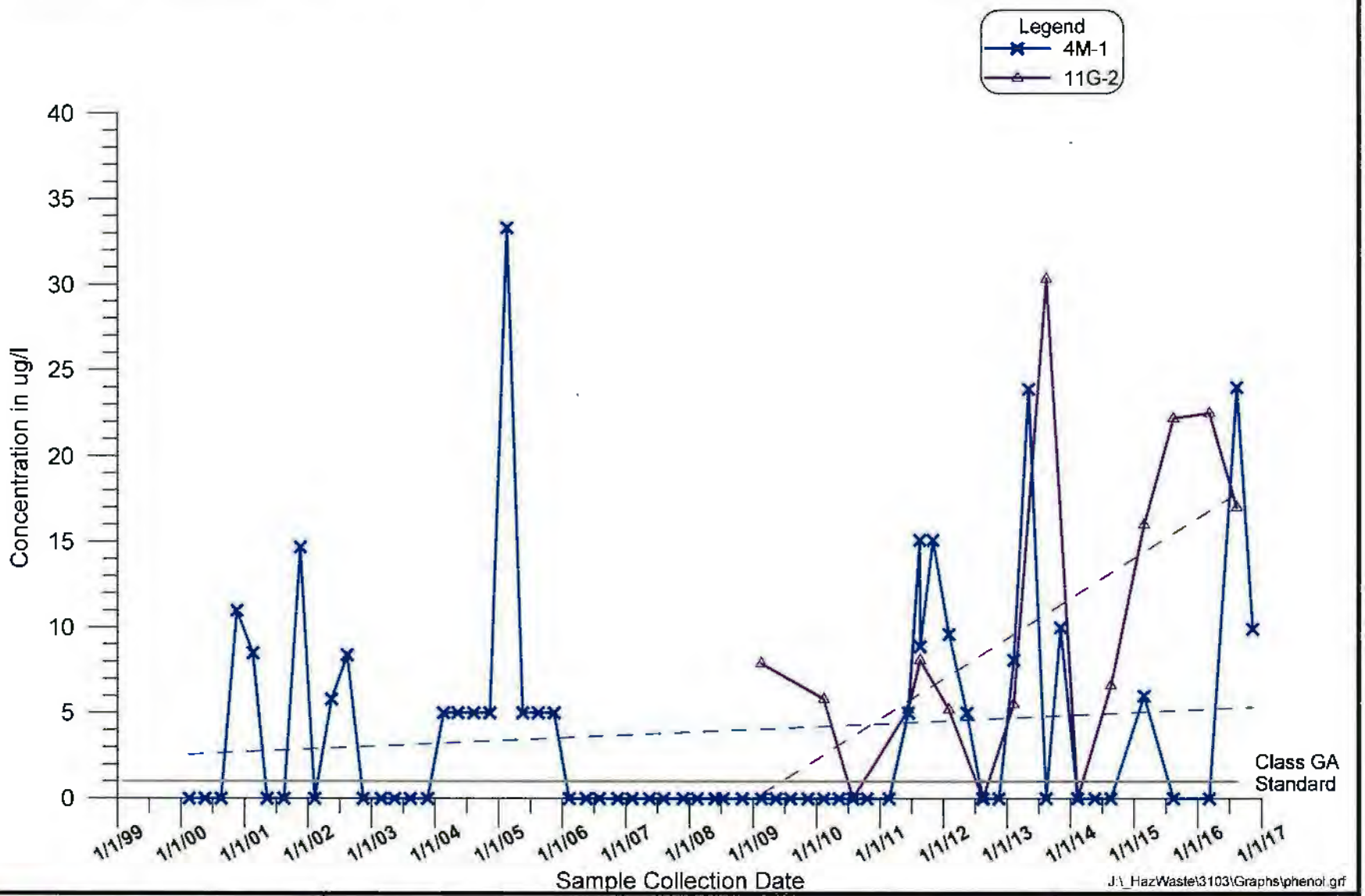
Appendix
C



D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Chloride Data for Select Monitoring Wells

Appendix C



D&B ENGINEERS AND ARCHITECTS, P.C.

Blydenburgh Road Landfill Complex
Historical Phenols Data for Select Monitoring Wells

Appendix
C

APPENDIX D

GROUNDWATER DATA TABLES

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

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID	GM-1D*	GM-1D*	GM-1D*	GM-1D*	GM-1D*
			Sample_date	02/27/15	04/23/15	06/24/15	08/27/15	10/30/15
			Depth of Well BGS	399'	399'	399'	399'	399'
			Depth to bottom screen, relative to MSL	-247'	-247'	-247'	-247'	-247'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN	DOWN
COMPOUNDS								
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		4 J	6	4 J	4 J	5
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		4 J	5	4 J	5	5
2-Hexanone	591-78-6	50 GV		U	U	U	U	U
Acetone	67-64-1	50 GV		U	1 J	U	U	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U	U
Bromomethane	74-83-9	5 ST		U	UJ	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U	U
Chlorobenzene	108-90-7	5 ST		1 J	1 J	U	1 J	1 J
Chlorodifluoromethane (Freon 22)	75-45-6	---		7	8	8	9	9
Chloroethane	75-00-3	5 ST		U	U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U	1 BJ
Cis-1,2-Dichloroethylene	156-59-2	5 ST		8	11	7	8	8
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		11	14	12	12	15
Ethylbenzene	100-41-4	5 ST		U	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		4 J	4 J	3 J	3 J	3 J
Toluene	108-88-3	5 ST		U	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		3 J	4 J	3 J	3 J	3 J
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U	U
Vinyl Chloride	75-01-4	2 ST		3 J	4 J	2 J	3 J	4 J
Xylenes, Total	XYLENES	5 ST+		U	U	U	U	U
Total Volatile Organic Compounds		---		45	58	43	48	54

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	GM-1D* 12/23/15	GM-1D* 03/01/16	GM-1D* 04/22/16	GM-1D* 06/29/16	GM-1D* 08/03/16
Sample ID			GM-1D*	GM-1D*	GM-1D*	GM-1D*	GM-1D*
Sample_date			12/23/15	03/01/16	04/22/16	06/29/16	08/03/16
Depth of Well BGS			399'	399'	399'	399'	399'
Depth to bottom screen, relative to MSL			-247'	-247'	-247'	-247'	-247'
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN	DOWN
COMPOUNDS							
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	5	5	***6***	5	4 J
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	***5***	***5***	***6***	***5***	***5***
2-Hexanone	591-78-6	50 GV	U	U	U	U	U
Acetone	67-64-1	50 GV	U	U	1 BJ	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U	U
Chlorobenzene	108-90-7	5 ST	1 J	1 J	1 J	1 J	1 J
Chlorodifluoromethane (Freon 22)	75-45-6	---	8	12	10	U	6
Chloroethane	75-00-3	5 ST	U	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	***8***	***9***	***11***	***8***	***7***
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	***12***	***14***	***16***	***12***	***10***
Ethylbenzene	100-41-4	5 ST	U	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	4 J	3 J	4 J	3 J	3 J
Toluene	108-88-3	5 ST	U	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	3 J	3 J	4 J	3 J	3 J
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	***3 J***	***3 J***	***5***	2 J	2 J
Xylenes, Total	XYLENES	5 ST+	U	U	U	U	U
Total Volatile Organic Compounds		---	49	55	64	39	41

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	GM-1I	GM-1I	GM-1I	GM-1I
		Sample_date	02/27/15	09/03/15	03/07/16	08/03/16
		Depth of Well BGS	285'	285'	285'	285'
		Depth to bottom screen, relative to MSL	-138'	-138'	-138'	-138'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	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
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	GM-1S 08/19/13 135' 19' DOWN	GM-1S 08/28/14 135' 19' DOWN	GM-1S 09/03/15 135' 19' DOWN	GM-1S 08/03/16 135' 19' DOWN
Sample ID			GM-1S	GM-1S	GM-1S	GM-1S
Sample_date			08/19/13	08/28/14	09/03/15	08/03/16
Depth of Well BGS			135'	135'	135'	135'
Depth to bottom screen, relative to MSL			19'	19'	19'	19'
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	UJ	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	—	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	—	UJ	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 at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	GM-2D 08/22/13	GM-2D 08/28/14	GM-2D 09/01/15	GM-2D 08/08/16
Sample ID			GM-2D	GM-2D	GM-2D	GM-2D
Sample_date			08/22/13	08/28/14	09/01/15	08/08/16
Depth of Well BGS			398'	398'	398'	398'
Depth to bottom screen, relative to MSL			-248'	-248'	-248'	-248'
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	UJ	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	—	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	—	UJ	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 at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	GM-2I	GM-2I	GM-2I	GM-2I
		Sample_date	08/22/13	08/28/14	09/01/15	08/08/16
		Depth of Well BGS	298'	298'	298'	298'
		Depth to bottom screen, relative to MSL	-136'	-136'	-136'	-136'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	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	UJ	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	—	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	***7***	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	***7***	***8***	***9***	***8***
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	***7***	***6***	***6***	***6***
Vinyl Acetate	108-05-4	—	UJ	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	14	22	14

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	GM-2S 08/22/13 149' 12' DOWN	GM-2S 09/03/14 149' 12' DOWN	GM-2S 09/01/15 149' 12' DOWN	GM-2S 08/08/16 149' 12' DOWN
Sample ID			GM-2S	GM-2S	GM-2S	GM-2S
Sample_date			08/22/13	09/03/14	09/01/15	08/08/16
Depth of Well BGS			149'	149'	149'	149'
Depth to bottom screen, relative to MSL			12'	12'	12'	12'
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
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	UJ	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	—	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	3 J	4 J	U	4 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	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	2 J	2 J	U	1 J
Vinyl Acetate	108-05-4	—	UJ	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	0	5

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	4G-1 08/12/13 164' 2' DOWN	4G-1 08/14/14 164' 2' DOWN	4G-1 08/18/15 164' 2' DOWN	4G-1 8/3/16 164' 2' DOWN
Sample ID			4G-1	4G-1	4G-1	4G-1
Sample_date			08/12/13	08/14/14	08/18/15	8/3/16
Depth of Well BGS			164'	164'	164'	164'
Depth to bottom screen, relative to MSL			2'	2'	2'	2'
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
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	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++	2 J	***4 J***	***4 J***	1 J
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	UJ	UBJ	U	U
Acrylonitrile	107-13-1	5 ST	UJ	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	1 J	1 J	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	UJ	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	---	UJ	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	5	6	1

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 4G-2	4G-2	4G-2	4G-2
			Sample_date: 02/19/15	08/18/15	03/02/16	08/03/16
			Depth of Well BGS: 211'	211'	211'	211'
			Depth to bottom screen, relative to MSL: -45'	-45'	-45'	-45'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	UJ	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	UJ	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
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	4M-1	4M-1	4M-1	4M-1
		Sample_date	02/19/15	08/18/15	03/02/16	08/03/16
		Depth of Well BGS	325'	325'	325'	325'
		Depth to bottom screen, relative to MSL	-159'	-159'	-159'	-159'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	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	UJ	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	2 J	4 J	1 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	UJ	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	*3 J*	*3 J*	*3 J*	*3 J*
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	*13*	*11*	*15*	*13*
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	16	UB	UB
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	*3 J*	*2 J*	*3 J*	*3 J*
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	4 J	3 J	5	4 J
Chlorodifluoromethane (Freon 22)	75-45-6	—	8	8	28	7
Chloroethane	75-00-3	5 ST	1 J	U	2 J	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	3 J	2 J	5	2 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	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	—	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	1 J	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		—	39	47	66	33

\+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	4M-2	4M-2	4M-2	4M-2
		Sample_date	02/19/15	08/18/15	03/01/16	08/03/16
		Depth of Well BGS	486'	486'	486'	486'
		Depth to bottom screen, relative to MSL	-320'	-320'	-320'	-320'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	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	UJ	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	UJ	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	7	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	---	2 J	3 J	6	4 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	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	4 J	4 J	6	5
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	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		---	7	14	12	9

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	6G-1 03/02/15 147' 32' DOWN	6G-1 09/02/15 147' 32' DOWN	6G-1 03/04/16 147' 32' DOWN	6G-1 08/11/16 147' 32' DOWN
Sample ID			6G-1	6G-1	6G-1	6G-1
Sample_date			03/02/15	09/02/15	03/04/16	08/11/16
Depth of Well BGS			147'	147'	147'	147'
Depth to bottom screen, relative to MSL			32'	32'	32'	32'
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	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	1 J	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		—	1	0	0	0

\+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	6G-2	6G-2	6G-2	6G-2
			Sample_date	03/02/15	09/02/15	03/04/16	08/11/16
			Depth of Well BGS	230'	230'	230'	230'
			Depth to bottom screen, relative to MSL	-53'	-53'	-53'	-53'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		U	U	U	U
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		U	U	U	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	—		U	U	U	U
Chloroethane	75-00-3	5 ST		U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		U	U	U	U
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	—		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U
Vinyl Acetate	108-05-4	—		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		—		0	0	0	0

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	6G-3	6G-3	6G-3	6G-3
			Sample_date	03/02/15	09/02/15	03/04/16	08/11/16
			Depth of Well BGS	315'	315'	315'	315'
			Depth to bottom screen, relative to MSL	-138'	-138'	-138'	-138'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	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++		*1 J*	U	*1 J*	*1 J*
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*	U	*6*	*5*
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		2 J	U	3 J	2 J
Chlorodifluoromethane (Freon 22)	75-45-6	—		U	U	2 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		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	0	12	8

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	6M-1	6M-1	6M-1	6M-1
		Sample_date	08/21/13	08/27/14	09/02/15	08/11/16
		Depth of Well BGS	545'	545'	545'	545'
		Depth to bottom screen, relative to MSL	-368'	-368'	-368'	-368'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	—	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	—	UJ	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 at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	7M-1 02/23/15 214' -152' CROSS	7M-1 08/21/15 214' -152' CROSS	7M-1 03/02/16 214' -152' CROSS	7M-1 08/10/16 214' -152' CROSS
Sample ID			7M-1	7M-1	7M-1	7M-1
Sample_date			02/23/15	08/21/15	03/02/16	08/10/16
Depth of Well BGS			214'	214'	214'	214'
Depth to bottom screen, relative to MSL			-152'	-152'	-152'	-152'
Gradient relative to MSW			CROSS	CROSS	CROSS	CROSS
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	3 J	3 J	7	3 J
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	UJ	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	2 J	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	2 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	UJ	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	1 J	1 J	1 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	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		—	3	4	12	4

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

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

\+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 8M-1	8M-1	8M-1	8M-1
			Sample_date: 02/23/15	08/13/15	02/23/16	08/02/16
			Depth of Well BGS: 270'	270'	270'	270'
			Depth to bottom screen, relative to MSL: -134'	-134'	-134'	-134'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	UJ	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 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	UJ	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 J	2 J
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	—	2 J	2 J	3 J	2 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	U	U	1 J	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	1 J	1 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	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	5	8	5

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 8M-2	8M-2	8M-2	8M-2
			Sample_date: 02/23/15	08/13/15	02/23/16	08/02/16
			Depth of Well BGS: 383'	383'	383'	383'
			Depth to bottom screen, relative to MSL: -248'	-248'	-248'	-248'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	UJ	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	UJ	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
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	—	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	—	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		—	0	0	0	0

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 9G-1	9G-1	9G-1	9G-1
			Sample_date: 08/09/13	08/25/14	08/27/15	08/09/16
			Depth of Well BGS: 68'	68'	68'	68'
			Depth to bottom screen, relative to MSL: 23'	23'	23'	23'
			Gradient relative to MSW: UP	UP	UP	UP
COMPOUNDS						
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	UJ	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	UJ	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	UJ	U	U	U
Acrylonitrile	107-13-1	5 ST	UJ	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	UJ	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	UJ	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	—	UJ	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 at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	10G-1 08/07/13	10G-1 08/21/14	10G-1 08/14/15	10G-1 08/10/16
Sample ID			10G-1	10G-1	10G-1	10G-1
Sample_date			08/07/13	08/21/14	08/14/15	08/10/16
Depth of Well BGS			69'	69'	69'	69'
Depth to bottom screen, relative to MSL			20'	20'	20'	20'
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	UJ	U	U	U
Acetone	67-64-1	50 GV	UJ	U	U	U
Acrylonitrile	107-13-1	5 ST	UJ	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	UJ	U	U
Carbon Disulfide	75-15-0	60 GV	UJ	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	UJ	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	—	UJ	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	UJ	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	---	UJ	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 at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	10M-1	10M-1	10M-1	10M-1
			Sample_date	02/27/15	08/14/15	02/28/16	08/10/16
			Depth of Well BGS	256	256	256	256
			Depth to bottom screen, relative to MSL	-167	-167	-167	-167
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		3 J	3 J	3 J	2 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	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---		2 J	2 J	3 J	2 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		***6***	***6***	5	*3 J*
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		5	5	5	3 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	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		***8***	***7***	5	*4 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		2 J	2 J	2 J	1 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		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		26	25	23	15

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 11G-1	11G-1	11G-1	11G-1
			Sample_date: 02/20/15	08/19/15	03/07/16	08/09/16
			Depth of Well BGS: 145'	145'	145'	145'
			Depth to bottom screen, relative to MSL: 22'	22'	22'	22'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	UJ	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	UJ	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	***1 J***	***1 J***	***1 J***	***1 J***
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	***5***	***4 J***	***5***	***5***
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	1 J	1 J	1 J	1 J
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	U	1 J	1 J
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	6	8	8

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	11G-2 02/20/15 220' -51 DOWN	11G-2 08/19/15 220' -51 DOWN	11G-2 03/07/16 220' -51 DOWN	11G-2 08/09/16 220' -51 DOWN
Sample ID			11G-2	11G-2	11G-2	11G-2
Sample_date			02/20/15	08/19/15	03/07/16	08/09/16
Depth of Well BGS			220'	220'	220'	220'
Depth to bottom screen, relative to MSL			-51	-51	-51	-51
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
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	UJ	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	5	2 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	UJ	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	***5***	***5***	***7***	***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++	***26***	***24***	***36***	***33***
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	7	UB	UB
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	***2 J***	***2 J***	***3 J***	***2 J***
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	***6***	5	***7***	***6***
Chlorodifluoromethane (Freon 22)	75-45-6	---	9	8	28	9
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	2 J	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	***11***	***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	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	1 J	2 J	1 J
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	59	59	101	65

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	11M-1 08/12/13 320' -154' DOWN	11M-1 08/22/14 320' -154' DOWN	11M-1 08/19/15 320' -154' DOWN	11M-1 08/09/16 320' -154' DOWN
Sample ID			11M-1	11M-1	11M-1	11M-1
Sample_date			08/12/13	08/22/14	08/19/15	08/09/16
Depth of Well BGS			320'	320'	320'	320'
Depth to bottom screen, relative to MSL			-154'	-154'	-154'	-154'
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	1 J	2 J	1 J	2 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++	2 J	U	U	2 J
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	UB	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	—	NR	NR	2 J	3 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	3 J	4 J	3 J	4 J
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	4 J	5
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	—	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	3 J	3 J	2 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	1 J	2 J	1 J	2 J
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	—	UJ	U	U	U
Vinyl Chloride	75-01-4	2 ST	1 J	1 J	1 J	1 J
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		—	11	12	14	22

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	12M-1 03/03/15	12M-1 09/03/15	12M-1 03/04/16	12M-1 08/11/16
Sample ID			12M-1	12M-1	12M-1	12M-1
Sample_date			03/03/15	09/03/15	03/04/16	08/11/16
Depth of Well BGS			338'	338'	338'	338'
Depth to bottom screen, relative to MSL			-163'	-163'	-163'	-163'
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	1 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++	***2 J***	U	***3 J***	***2 J***
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++	***11***	***9***	***12***	***10***
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	5	U	***6***	*5*
Chlorodifluoromethane (Freon 22)	75-45-6	—	3 J	U	5	2 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	2 J	U	3 J	2 J
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	U	2 J	1 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	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	1 J	U	1 J	1 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	1 J	U	1 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	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		—	27	9	34	23

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	13G-1 02/26/15	13G-1 08/20/15	13G-1 02/28/16	13G-1 08/09/16
Sample ID			13G-1	13G-1	13G-1	13G-1
Sample_date			02/26/15	08/20/15	02/28/16	08/09/16
Depth of Well BGS			93'	93'	93'	93'
Depth to bottom screen, relative to MSL			17'	17'	17'	17'
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	—	U	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	—	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	—	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		—	0	0	0	0

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	13M-1 02/26/15	13M-1 08/20/15	13M-1 02/28/16	13M-1 08/09/16
Sample ID			13M-1	13M-1	13M-1	13M-1
Sample date			02/26/15	08/20/15	02/28/16	08/09/16
Depth of Well BGS			265'	265'	265'	265'
Depth to bottom screen, relative to MSL			-155	-155	-155	-155
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	4 J	4 J	4 J	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++	***4 J***	***5***	***5***	***6***
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	1 J	2 J	2 J	2 J
Chlorodifluoromethane (Freon 22)	75-45-6	—	5	5	7	4 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	***8***	***7***	***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	***9***	***9***	***10***	***8***
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	***11***	***10***	***10***	***9***
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	3 J	3 J	3 J	3 J
Trichlorofluoromethane	75-69-4	5 ST	1 J	U	1 J	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		—	47	45	50	43

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	14G-1A 02/18/15	14G-1A 08/17/15	14G-1A 02/24/16	14G-1A 08/02/16
Sample ID			14G-1A	14G-1A	14G-1A	14G-1A
Sample_date			02/18/15	08/17/15	02/24/16	08/02/16
Depth of Well BGS			220'	220'	220'	220'
Depth to bottom screen, relative to MSL			-58	-58	-58	-58
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	UJ	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	UJ	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	—	U	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	—	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	—	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		—	0	0	0	0

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 14G-2	14G-2	14G-2	14G-2
			Sample_date: 02/18/15	08/17/15	02/24/16	08/02/16
			Depth of Well BGS: 264'	264'	264'	264'
			Depth to bottom screen, relative to MSL: -103	-103	-103	-103
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	UJ	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	UJ	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	—	U	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	—	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	—	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		—	0	0	0	0

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID	14M-1	14M-1	14M-1	14M-1
			Sample_date	02/18/15	08/17/15	02/24/16	08/02/16
			Depth of Well BGS	355'	355'	355'	355'
			Depth to bottom screen, relative to MSL	-194'	-194'	-194'	-194'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS							
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		UJ	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		7	7	8	7
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		UJ	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		3 J	3 J	3 J	3 J
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++		16	15	15	15
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		U	6	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		3 J	3 J	3 J	3 J
Chlorodifluoromethane (Freon 22)	75-45-6	---		11	14	20	11
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	5	5	4 J
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		11	12	12	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	4 J	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	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	2 J	2 J	1 J
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		60	72	68	53

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 15G-1	15G-1	15G-1	15G-1
			Sample_date: 08/19/13	08/25/14	08/19/15	08/09/16
			Depth of Well BGS: 160'	160'	160'	160'
			Depth to bottom screen, relative to MSL: 23'	23'	23'	23'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
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	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	—	UJ	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 at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID	16G-1	16G-1	16G-1	16G-1
			Sample_date	08/07/13	08/21/14	08/14/15	08/10/16
			Depth of Well BGS	57'	57'	57'	57'
			Depth to bottom screen, relative to MSL	20'	20'	20'	20'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS							
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		U	U	U	U
2-Hexanone	591-78-6	50 GV		UJ	U	U	U
Acetone	67-64-1	50 GV		UJ	U	U	U
Acrylonitrile	107-13-1	5 ST		UJ	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	UJ	U	U
Carbon Disulfide	75-15-0	60 GV		UJ	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		UJ	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	—		UJ	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		UJ	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	—		UJ	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 at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID	16M-1	16M-1	16M-1	16M-1
			Sample_date	03/03/15	08/14/15	02/28/16	08/10/16
			Depth of Well BGS	240'	240'	240'	240'
			Depth to bottom screen, relative to MSL	-163	-163	-163	-163
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS							
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		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++		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		1 J	1 J	1 J	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	1 J	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		***6***	5	5	5
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		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	5

\+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	18G-1 02/20/15 157' 11' DOWN	18G-1 08/20/15 157' 11' DOWN	18G-1 02/23/16 157' 11' DOWN	18G-1 08/03/16 157' 11' DOWN
Sample ID			18G-1	18G-1	18G-1	18G-1
Sample_date			02/20/15	08/20/15	02/23/16	08/03/16
Depth of Well BGS			157'	157'	157'	157'
Depth to bottom screen, relative to MSL			11'	11'	11'	11'
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	UJ	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	UJ	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	U	2 J	2 J
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		—	2	0	2	2

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 18G-2	18G-2	18G-2	18G-2
			Sample_date: 02/20/15	08/20/15	02/23/16	08/03/16
			Depth of Well BGS: 197'	197'	197'	197'
			Depth to bottom screen, relative to MSL: -29	-29	-29	-29
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	UJ	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	UJ	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	2 J	2 J	2 J
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	2	2	2

+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	22M-1	22M-1	22M-1	22M-1
		Sample_date	03/03/15	08/21/15	03/07/16	08/10/16
		Depth of Well BGS	222'	222'	222'	222'
		Depth to bottom screen, relative to MSL	-164'	-164'	-164'	-164'
		Gradient relative to MSW	UP	UP	UP	UP
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	—	U	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	—	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	—	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		—	0	0	0	0

\+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID	23M-1	23M-1	23M-1	23M-1
			Sample_date	02/25/15	08/21/15	03/02/16	08/09/16
			Depth of Well BGS	240'	240'	240'	240'
			Depth to bottom screen, relative to MSL	-164'	-164'	-164'	-164'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS							
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	1 J	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		UJ	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	1 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		UJ	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		2 J	1 J	2 J	1 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		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		—		2	1	4	1

\+ Applies to each isomer individually
NR Not reported at target compound
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) based on 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 D-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l		Sample ID	GM-1D*	GM-1D*	GM-1D*	GM-1D*	GM-1D*
		Sample_date	02/27/15	04/23/15	06/24/15	08/27/15	10/30/15
		Depth of Well BGS	399'	399'	399'	399'	399'
		Depth to bottom screen, relative to MSL	-247'	-247'	-247'	-247'	-247'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--	UB	63.9 B	U	UB	7.9 B
Antimony	7440-36-0	3 ST	U	U	***3.6 B***	UB	U
Arsenic	7440-38-2	25 ST	U	4.3 B	U	U	2.3 B
Barium	7440-39-3	1000 ST	UBJ	2.7 B	2.4 B	2.2 B	2.1 B
Beryllium	7440-41-7	3 GV	U	0.8 B	U	U	0.30 B
Boron	7440-42-8	1000 ST	279	278	286	284	288
Cadmium	7440-43-9	5 ST	U	0.3 B	0.20 B	U	0.40 B
Calcium	7440-70-2	--	95400	91800	87800	96500 J	91400
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	1.8 B	U	U	U
Cobalt	7440-48-4	--	U	0.8 B	U	0.4 B	0.60 B
Copper	7440-50-8	200 ST	6.3 B	4 B	124	UB	1.4 B
Cyanide	57-12-5	200 ST	U	U	U	U	U
Iron	7439-89-6	300 ST#	*51.7 B*	117	109	124	245
Lead	7439-92-1	25 ST	2.6 B	2.7 B	14.4	2.1 BJ	6.8
Magnesium	7439-95-4	35000 GV	***62700***	***58200***	***52900***	***60400 J***	***56900***
Manganese	7439-96-5	300 ST#	UB	3.9 B	2.6 B	UBJ	5.8 BJ
Mercury	7439-97-6	0.7 ST	U	U	0.11 B	UJ	U
Nickel	7440-02-0	100 ST	UB	6.3 B	5.2 B	5.9 B	7.6 B
Potassium	7440-09-7	--	5680	4490 B	4600 B	5090 J	4760 B
Selenium	7782-49-2	10 ST	U	U	U	UJ	UJ
Silver	7440-22-4	50 ST	U	U	U	UJ	0.89 BJ
Sodium	7440-23-5	20000 ST	***144000***	***152000***	***141000***	***150000 J***	***145000***
Thallium	7440-28-0	0.5 GV	U	U	U	U	U
Vanadium	7440-62-2	--	1.0 B	1.9 B	U	U	U
Zinc	7440-66-6	2000 GV	45.1	8.91 B	118	UB	4.4 B

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

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

Units in ug/l		Sample ID	GM-1D*	GM-1D*	GM-1D*	GM-1D*	GM-1D*
		Sample_date	12/23/15	03/01/16	04/22/16	06/29/16	08/03/16
		Depth of Well BGS	399'	399'	399'	399'	399'
		Depth to bottom screen, relative to MSL	-247'	-247'	-247'	-247'	-247'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--	U	34 J	U	U	U
Antimony	7440-36-0	3 ST	U	U	U	U	U
Arsenic	7440-38-2	25 ST	2.2 B	U	U	U	U
Barium	7440-39-3	1000 ST	2.4 B	U	U	U	U
Beryllium	7440-41-7	3 GV	0.2 B	U	U	U	U
Boron	7440-42-8	1000 ST	318	313	277	290	274
Cadmium	7440-43-9	5 ST	0.4 B	0.2 J	U	U	U
Calcium	7440-70-2	--	95700	95100	90500	88500	90600
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	U	0.4 J
Copper	7440-50-8	200 ST	1.9 B	1.2 J	1.3 J	1.3 J	13.1 J
Cyanide	57-12-5	200 ST	U	U	U	U	U
Iron	7439-89-6	300 ST#	***340***	234 J-	***314***	***420***	***527***
Lead	7439-92-1	25 ST	9.6	6	8.3	1.1 J	8.3
Magnesium	7439-95-4	35000 GV	***60800***	***59700***	***56700***	***54700***	***57800***
Manganese	7439-96-5	300 ST#	6.2 B	8.2 J	6.5 J	8.4 J	7.4 J
Mercury	7439-97-6	0.7 ST	U	UB	U	U	U
Nickel	7440-02-0	100 ST	7.4 B	7.7 J	6.9 J	7.2 J	8 J
Potassium	7440-09-7	--	5120	5220	4710 J	4290 J	3860 J
Selenium	7782-49-2	10 ST	UJ	U	U	U	U
Silver	7440-22-4	50 ST	U	U	U	U	U
Sodium	7440-23-5	20000 ST	***165000***	***162000 J***	***149000***	***149000***	***153000 J***
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	4.9 B	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	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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

Units in ug/l		Sample ID	GM-1I	GM-1I	GM-1I	GM-1I
		Sample_date	02/27/15	09/03/15	03/07/16	08/03/16
		Depth of Well BGS	285'	285'	285'	285'
		Depth to bottom screen, relative to MSL	-138'	-138'	-138'	-138'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	23.9 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	24.3 BJ	22 B	24.4 J	21.2 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	135	136	142	118
Cadmium	7440-43-9	5 ST	U	UB	U	U
Calcium	7440-70-2	--	44900	41300	42600	41100
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	U	5.6 J	U
Cobalt	7440-48-4	--	5.5 B	5 B	4.9 J	4 J
Copper	7440-50-8	200 ST	3.5 B	UB	0.4 J	2.3 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	117	U	UJ	U
Lead	7439-92-1	25 ST	2.7 B	7.2	6.4	6.9
Magnesium	7439-95-4	35000 GV	28500	25600	26800	25100
Manganese	7439-96-5	300 ST#	6.9 B	U	U	U
Mercury	7439-97-6	0.7 ST	U	U	UB	U
Nickel	7440-02-0	100 ST	9.4 B	7 B	9.8 J	6.8 J
Potassium	7440-09-7	--	UB	3620 B	3150 J	2130 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	***47600***	***47000***	***53000 J***	***47800 J***
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	1.1 B	U	U	U
Zinc	7440-66-6	2000 GV	UB	4.2 B	U	UB

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

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

Units in ug/l		Sample ID	GM-1S	GM-1S	GM-1S	GM-1S
		Sample_date	08/19/13	08/28/14	09/03/15	08/03/16
		Depth of Well BGS	135'	135'	135'	135'
		Depth to bottom screen, relative to MSL	19'	19'	19'	19'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	30.2 B	UB	UB	U
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	18.1 B	19.9 B	19.3 B	17.9 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	150 B	131	138	126
Cadmium	7440-43-9	5 ST	U	U	UB	U
Calcium	7440-70-2	--	39800	39700	43100	39600
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	46.7	UB	U	U
Cobalt	7440-48-4	--	7.5 B	5 B	4.5 B	4.1 J
Copper	7440-50-8	200 ST	UB	UB	UB	0.8 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	***402***	UB	U	U
Lead	7439-92-1	25 ST	8.1	U	6.1	8.3
Magnesium	7439-95-4	35000 GV	23200	21700	25400	23000
Manganese	7439-96-5	300 ST#	11.8 B	U	0.7 B	U
Mercury	7439-97-6	0.7 ST	U	U	UB	U
Nickel	7440-02-0	100 ST	17.6 B	10.4 B	10.9 B	15.4 J
Potassium	7440-09-7	--	UB	4180 B	4970 B	3130 J
Selenium	7782-49-2	10 ST	U	U	U	U
Silver	7440-22-4	50 ST	U	U	UBJ	U
Sodium	7440-23-5	20000 ST	***53800***	***48400***	***51300***	***57400 J***
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	UB	1 B	U	U
Zinc	7440-66-6	2000 GV	UB	U	7.7 B	UB

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

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

Units in ug/l		Sample ID	GM-2D	GM-2D	GM-2D	GM-2D
		Sample_date	08/22/13	08/28/14	09/01/15	08/08/16
		Depth of Well BGS	398'	398'	398'	398'
		Depth to bottom screen, relative to MSL	-248'	-248'	-248'	-248'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	UB	UB	U
Antimony	7440-36-0	3 ST	U	1.8 B	UB	UB
Arsenic	7440-38-2	25 ST	U	U	U	U
Barium	7440-39-3	1000 ST	U	UB	1.8 B	U
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	UB	UB	UB	7.6 J
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	4970 B	4790 B	5180 J	4960
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	U	UB	U
Cobalt	7440-48-4	--	0.50 B	0.4 B	0.3 B	0.5 J
Copper	7440-50-8	200 ST	UB	U	3.9 B	U
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	123	UB	135	112
Lead	7439-92-1	25 ST	5.1	U	2.6 BJ	1.7 J
Magnesium	7439-95-4	35000 GV	1870 B	1720 B	1950 BJ	1900
Manganese	7439-96-5	300 ST#	11.0 B	UB	9.8 BJ	8.8 J
Mercury	7439-97-6	0.7 ST	U	U	UJ	UB
Nickel	7440-02-0	100 ST	UB	U	U	U
Potassium	7440-09-7	--	UB	416 B	UBJ	U
Selenium	7782-49-2	10 ST	4.2 B	U	UJ	UJ
Silver	7440-22-4	50 ST	U	U	UJ	U
Sodium	7440-23-5	20000 ST	3380 B	UB	3450 BJ	849 J
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	UB	0.5 B	U	U
Zinc	7440-66-6	2000 GV	UB	U	UB	U

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

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

Units in ug/l		Sample ID	GM-2I	GM-2I	GM-2I	GM-2I
		Sample_date	08/22/13	08/28/14	09/01/15	08/08/16
		Depth of Well BGS	298'	298'	298'	298'
		Depth to bottom screen, relative to MSL	-136'	-136'	-136'	-136'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	UB	UB	U
Antimony	7440-36-0	3 ST	U	U	U	U
Arsenic	7440-38-2	25 ST	U	U	U	U
Barium	7440-39-3	1000 ST	U	UB	3.4 B	U
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	UB	UB	UB	9 J
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	26900	29800	32500 J	30100
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	UB	UB	U
Cobalt	7440-48-4	--	U	U	U	U
Copper	7440-50-8	200 ST	UB	U	U	U
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	16.9 B	U	U	U
Lead	7439-92-1	25 ST	6.1	U	2.5 BJ	2.6 J
Magnesium	7439-95-4	35000 GV	14100	14500	16700 J	15900
Manganese	7439-96-5	300 ST#	U	UB	UBJ	U
Mercury	7439-97-6	0.7 ST	U	U	UJ	UB
Nickel	7440-02-0	100 ST	UB	U	U	U
Potassium	7440-09-7	--	UB	1230 B	1940 BJ	668 J
Selenium	7782-49-2	10 ST	U	U	UJ	UJ
Silver	7440-22-4	50 ST	U	U	UJ	U
Sodium	7440-23-5	20000 ST	8910	11500	10100 J	11800 J
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	5.2 B	5 B	6.3 B	4.3 J
Zinc	7440-66-6	2000 GV	UB	U	UB	U

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

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

Units in ug/l		Sample ID	GM-2S	GM-2S	GM-2S	GM-2S
		Sample_date	08/22/13	09/03/14	09/01/15	08/08/16
		Depth of Well BGS	149'	149'	149'	149'
		Depth to bottom screen, relative to MSL	12'	12'	12'	12'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	U	242	U
Antimony	7440-36-0	3 ST	1.5 B	U	UB	U
Arsenic	7440-38-2	25 ST	U	U	U	U
Barium	7440-39-3	1000 ST	15.7 B	15.4 B	13.4 B	16 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	UB	15.7 B	UB	16.1 J
Cadmium	7440-43-9	5 ST	U	U	0.4 B	U
Calcium	7440-70-2	--	16000	14800	12900 J	14000
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	0.5 B	U	U
Cobalt	7440-48-4	--	U	U	0.5 B	U
Copper	7440-50-8	200 ST	UB	U	UB	U
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	28.0 B	UB	130	U
Lead	7439-92-1	25 ST	8.3	U	3.5 J	3.2 J
Magnesium	7439-95-4	35000 GV	6900	6100	5480 J	5960
Manganese	7439-96-5	300 ST#	UB	1.6 B	11.3 BJ	U
Mercury	7439-97-6	0.7 ST	U	U	UJ	UB
Nickel	7440-02-0	100 ST	UB	1.3 B	UB	3.2 J
Potassium	7440-09-7	--	UB	1250 B	1790 BJ	860 J
Selenium	7782-49-2	10 ST	U	U	UJ	UJ
Silver	7440-22-4	50 ST	U	U	1.1 BJ-	U
Sodium	7440-23-5	20000 ST	8040	8150	6740 J	7700 J
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	UB	UB	UB	U

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

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

Units in ug/l		Sample ID	4G-1	4G-1	4G-1	4G-1
		Sample_date	08/12/13	08/14/14	08/18/15	8/3/16
		Depth of Well BGS	164'	164'	164'	164'
		Depth to bottom screen, relative to MSL	2'	2'	2'	2'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	UB	UB	U
Antimony	7440-36-0	3 ST	U	U	U	U
Arsenic	7440-38-2	25 ST	U	U	U	U
Barium	7440-39-3	1000 ST	125 B	129 B	157 B	83.9 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	168	189	269 BJ	153
Cadmium	7440-43-9	5 ST	U	U	0.9 B	U
Calcium	7440-70-2	--	13200	15400	13000 J	7640
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	UB	UB	U
Cobalt	7440-48-4	--	10.7 B	12.9 B	11.9 B	6.8 J
Copper	7440-50-8	200 ST	U	9.4 B	UB	1.6 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	***8890***	***12600***	***11200***	***5850***
Lead	7439-92-1	25 ST	U	1 B	14.7	6.5
Magnesium	7439-95-4	35000 GV	5750	7390	7420 J	4120
Manganese	7439-96-5	300 ST#	***7260***	***8460***	***7320 J***	***4050***
Mercury	7439-97-6	0.7 ST	U	U	UJ	U
Nickel	7440-02-0	100 ST	21.3 B	23.2 B	24.8 B	15.8 J
Potassium	7440-09-7	--	18600 J	16200	25800	14800
Selenium	7782-49-2	10 ST	3.3 B	UJ	U	U
Silver	7440-22-4	50 ST	UB	UB	UB	U
Sodium	7440-23-5	20000 ST	***79500***	***101000***	***99000***	***87200 J***
Thallium	7440-28-0	0.5 GV	***7.2 B***	U	U	***6.3 J***
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	UB	U

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

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

Units in ug/l		Sample ID	4G-2	4G-2	4G-2	4G-2
		Sample_date	02/19/15	08/18/15	03/02/16	08/03/16
		Depth of Well BGS	211'	211'	211'	211'
		Depth to bottom screen, relative to MSL	-45'	-45'	-45'	-45'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	25.1 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	90.4 B	74.2 B	71.3 J	77.5 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	124	134 BJ	126	110
Cadmium	7440-43-9	5 ST	U	U	0.2 J	U
Calcium	7440-70-2	--	30400	25500 J	23700	26900
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	1.2 B	UB	4.5 J	U
Cobalt	7440-48-4	--	4.7 B	3.1 B	3.1 J	3.1 J
Copper	7440-50-8	200 ST	UB	UB	3.9 J	3.6 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	***893***	***753***	***711 J-***	***761***
Lead	7439-92-1	25 ST	U	11.4	4.9 J	6.5
Magnesium	7439-95-4	35000 GV	6780	5510 J	5520	6400
Manganese	7439-96-5	300 ST#	***4910***	***3760 J***	***3720***	***4330***
Mercury	7439-97-6	0.7 ST	U	UJ	UB	U
Nickel	7440-02-0	100 ST	14.7 B	11.8 B	13.8 J	10.3 J
Potassium	7440-09-7	--	9060	8930	8350	7480
Selenium	7782-49-2	10 ST	U	U	U	U
Silver	7440-22-4	50 ST	U	UB	U	U
Sodium	7440-23-5	20000 ST	***85800***	***86700***	***88900 J***	***87600 J***
Thallium	7440-28-0	0.5 GV	U	U	U	***7 J***
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	U	UB

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

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

Units in ug/l		Sample ID	4M-1	4M-1	4M-1	4M-1
		Sample_date	02/19/15	08/18/15	03/02/16	08/03/16
		Depth of Well BGS	325'	325'	325'	325'
		Depth to bottom screen, relative to MSL	-159'	-159'	-159'	-159'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	66.9 J	U
Antimony	7440-36-0	3 ST	3.4 B	U	U	U
Arsenic	7440-38-2	25 ST	17.4	19	17.1	17.5
Barium	7440-39-3	1000 ST	23.1 B	22.6 B	21.8 J	19.3 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	***1590***	***1790 J***	***1740***	***1570***
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	64800	64600 J	57800	56900
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	3.9 B	UB	14.2	3.4 J
Cobalt	7440-48-4	--	21.8 B	22.4 B	23.7 J	23 J
Copper	7440-50-8	200 ST	UB	UB	5.6 J	5.3 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	***1340***	***1140***	***927 J-***	***1120***
Lead	7439-92-1	25 ST	3.2	21.8	8.8	13.5
Magnesium	7439-95-4	35000 GV	***60700***	***61000 J***	***57100***	***55600***
Manganese	7439-96-5	300 ST#	***2310***	***2380 J***	***2180***	***2030***
Mercury	7439-97-6	0.7 ST	U	UJ	UB	0.082 J
Nickel	7440-02-0	100 ST	***168***	***170***	***183***	***161***
Potassium	7440-09-7	--	98400	104000	104000	91900
Selenium	7782-49-2	10 ST	U	U	U	U
Silver	7440-22-4	50 ST	U	UB	U	U
Sodium	7440-23-5	20000 ST	***438000***	***444000***	***433000 J***	***408000 J***
Thallium	7440-28-0	0.5 GV	U	U	U	***2.9 J***
Vanadium	7440-62-2	--	2.5 B	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	U	U

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

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

Units in ug/l		Sample ID	4M-2	4M-2	4M-2	4M-2
		Sample_date	02/19/15	08/18/15	03/01/16	08/03/16
		Depth of Well BGS	486'	486'	486'	486'
		Depth to bottom screen, relative to MSL	-320'	-320'	-320'	-320'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	U	U
Antimony	7440-36-0	3 ST	U	U	U	U
Arsenic	7440-38-2	25 ST	U	2.3 B	U	U
Barium	7440-39-3	1000 ST	3.8 B	3.8 B	U	U
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	32.8 B	45.2 BJ	34.9 J	46.4 J
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	57600	59400 J	55900	60400
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	UB	6.8 J	U
Cobalt	7440-48-4	--	2.0 B	2.2 B	2.3 J	2.5 J
Copper	7440-50-8	200 ST	UB	U	0.8 J	U
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	***1420***	***1290***	***1220 J-***	***1390***
Lead	7439-92-1	25 ST	2.4 B	11.4	5.1	6.1
Magnesium	7439-95-4	35000 GV	31200	32100 J	30800	34100
Manganese	7439-96-5	300 ST#	***18.5***	***17.8 J***	***17.5***	***18.7***
Mercury	7439-97-6	0.7 ST	U	UJ	UB	U
Nickel	7440-02-0	100 ST	6.4 B	7.5 B	12.3 J	10 J
Potassium	7440-09-7	--	2960 B	3140 B	2820 J	3120 J
Selenium	7782-49-2	10 ST	U	U	U	U
Silver	7440-22-4	50 ST	U	UB	U	U
Sodium	7440-23-5	20000 ST	***156000***	***156000***	***163000 J***	***168000 J***
Thallium	7440-28-0	0.5 GV	U	U	U	***2 J***
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	U	U

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

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

Units in ug/l		Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW	6G-1 03/02/15 147' 32' DOWN	6G-1 09/02/15 147' 32' DOWN	6G-1 03/04/16 147' 32' DOWN	6G-1 08/11/16 147' 32' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	24.3 J	U
Antimony	7440-36-0	3 ST	U	U	U	U
Arsenic	7440-38-2	25 ST	U	U	U	U
Barium	7440-39-3	1000 ST	14.7 BJ	11.5 B	U	U
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	54.4 B	52.4 B	46.8 J	63.7 J
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	15500	13400	15300	17300
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	UB	10.2	2.6 J
Cobalt	7440-48-4	--	0.90 B	1.2 B	0.7 J	1 J
Copper	7440-50-8	200 ST	0.70 B	UB	0.6 J	UB
Cyanide	57-12-5	200 ST	U	U	U	UJ
Iron	7439-89-6	300 ST#	27.3 B	U	91.4 J-	U
Lead	7439-92-1	25 ST	U	7.4	4.7 J	4.2 J
Magnesium	7439-95-4	35000 GV	6270	5380	6020	6970
Manganese	7439-96-5	300 ST#	UB	1.1 B	2.9 J	U
Mercury	7439-97-6	0.7 ST	U	U	UB	UJ
Nickel	7440-02-0	100 ST	11.1 B	4.3 B	17.6 J	2.8 J
Potassium	7440-09-7	--	UB	2810 B	2340 J	2370 J
Selenium	7782-49-2	10 ST	U	U	U	U
Silver	7440-22-4	50 ST	U	UBJ	U	UJ
Sodium	7440-23-5	20000 ST	***48400***	***39000***	***36400 J***	***51200***
Thallium	7440-28-0	0.5 GV	U	***2.9 B***	U	U
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	UB	U	U	6.7 J

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

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

Units in ug/l		Sample ID	6G-2	6G-2	6G-2	6G-2
		Sample_date	03/02/15	09/02/15	03/04/16	08/11/16
		Depth of Well BGS	230'	230'	230'	230'
		Depth to bottom screen, relative to MSL	-53'	-53'	-53'	-53'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	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	33.6 BJ	33.7 B	36.7 J	37 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	112	109	117	110
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	18600	18200	19100	21400
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	--	13.2 B	10.5 B	11.2 J	8.1 J
Copper	7440-50-8	200 ST	1.9 B	UB	1.1 J	UB
Cyanide	57-12-5	200 ST	U	U	U	UJ
Iron	7439-89-6	300 ST#	13.7 B	U	UJ	U
Lead	7439-92-1	25 ST	U	4	3.3 J	3.1 J
Magnesium	7439-95-4	35000 GV	7490	6910	7380	8170
Manganese	7439-96-5	300 ST#	107	130	112	109
Mercury	7439-97-6	0.7 ST	U	UB	UB	UJ
Nickel	7440-02-0	100 ST	7.1 B	6 B	7.1 J	5.5 J
Potassium	7440-09-7	--	UB	1650 B	1650 J	1130 J
Selenium	7782-49-2	10 ST	U	U	U	U
Silver	7440-22-4	50 ST	U	UBJ	U	UJ
Sodium	7440-23-5	20000 ST	***84200***	***85300***	***90400 J***	***89400***
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	UB	2.9 B	U	U

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

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

Units in ug/l		Sample ID	6G-3	6G-3	6G-3	6G-3
		Sample_date	03/02/15	09/02/15	03/04/16	08/11/16
		Depth of Well BGS	315'	315'	315'	315'
		Depth to bottom screen, relative to MSL	-138'	-138'	-138'	-138'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	29.1 J	U
Antimony	7440-36-0	3 ST	U	U	U	U
Arsenic	7440-38-2	25 ST	U	2.2 B	U	U
Barium	7440-39-3	1000 ST	50.2 BJ	48.6 B	50.9 J	47.1 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	237	230	248	219
Cadmium	7440-43-9	5 ST	U	UB	U	U
Calcium	7440-70-2	--	40100	36300	38100	38800
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	U	2.5 J	U
Cobalt	7440-48-4	--	6.0 B	6 B	5.7 J	5.3 J
Copper	7440-50-8	200 ST	0.60 B	U	U	UB
Cyanide	57-12-5	200 ST	U	U	U	UJ
Iron	7439-89-6	300 ST#	***124***	***152***	***106 J-***	***153***
Lead	7439-92-1	25 ST	U	8.7	6.1	5 J
Magnesium	7439-95-4	35000 GV	23900	20800	21800	22200
Manganese	7439-96-5	300 ST#	***3390***	***3460***	***3390***	***3410***
Mercury	7439-97-6	0.7 ST	U	U	UB	UJ
Nickel	7440-02-0	100 ST	16.5 B	15.2 B	17.3 J	13.9 J
Potassium	7440-09-7	--	10400	8520	9470	8100
Selenium	7782-49-2	10 ST	U	U	U	U
Silver	7440-22-4	50 ST	U	UBJ	U	UJ
Sodium	7440-23-5	20000 ST	***51100***	***52200***	***49800 J***	***43300***
Thallium	7440-28-0	0.5 GV	***4.3 B***	U	U	***6.6 J***
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	UB	U	U	U

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

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

Units in ug/l		Sample ID	6M-1	6M-1	6M-1	6M-1
		Sample_date	08/21/13	08/27/14	09/02/15	08/11/16
		Depth of Well BGS	545'	545'	545'	545'
		Depth to bottom screen, relative to MSL	-368'	-368'	-368'	-368'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	UB	UB	U
Antimony	7440-36-0	3 ST	1.5 B	U	U	U
Arsenic	7440-38-2	25 ST	U	U	2.5 B	U
Barium	7440-39-3	1000 ST	5.7 B	8.9 B	9 B	U
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	39 B	40.3 B	44 B	41.5 J
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	11800	13000	13000	13200
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	15.6	U	U
Cobalt	7440-48-4	--	0.9 B	1.6 B	1.6 B	1.1 J
Copper	7440-50-8	200 ST	UB	UB	UB	U
Cyanide	57-12-5	200 ST	U	U	U	UJ
Iron	7439-89-6	300 ST#	22.3 B	195	94.4 B	155
Lead	7439-92-1	25 ST	UB	U	5.8	3.1 J
Magnesium	7439-95-4	35000 GV	8820	8760	9190	9240
Manganese	7439-96-5	300 ST#	96.9	94.4	84.6	75.4
Mercury	7439-97-6	0.7 ST	U	U	U	UJ
Nickel	7440-02-0	100 ST	UB	17.7 B	3 B	2.9 J
Potassium	7440-09-7	--	UB	1460 B	1880 B	1030 J
Selenium	7782-49-2	10 ST	U	U	U	U
Silver	7440-22-4	50 ST	U	U	UBJ	UJ
Sodium	7440-23-5	20000 ST	13300	19000	18100	19500
Thallium	7440-28-0	0.5 GV	U	U	***2.8 B***	U
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	UB	U	U	U

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

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

Units in ug/l		Sample ID	7M-1	7M-1	7M-1	7M-1
		Sample_date	02/23/15	08/21/15	03/02/16	08/10/16
		Depth of Well BGS	214'	214'	214'	214'
		Depth to bottom screen, relative to MSL	-152'	-152'	-152'	-152'
		Gradient relative to MSW	CROSS	CROSS	CROSS	CROSS
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	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	10.7 B	9.3 B	U	U
Beryllium	7440-41-7	3 GV	UB	U	U	U
Boron	7440-42-8	1000 ST	31.9 B	30.2 B	35.3 J	30.3 J
Cadmium	7440-43-9	5 ST	UB	U	U	U
Calcium	7440-70-2	--	20900	18500 J	15700	18000
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	1.9 B	U	U	U
Cobalt	7440-48-4	--	0.60 B	U	U	U
Copper	7440-50-8	200 ST	UB	U	0.7 J	U
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	11.5 B	U	UJ	U
Lead	7439-92-1	25 ST	U	3.5 J	5.5	2.7 J
Magnesium	7439-95-4	35000 GV	9200	8290 J	6620	8040
Manganese	7439-96-5	300 ST#	6.4 B	5.8 BJ	8.6 J	6.3 J
Mercury	7439-97-6	0.7 ST	U	UJ	UB	UB
Nickel	7440-02-0	100 ST	0.90 B	U	U	U
Potassium	7440-09-7	--	1980 B	2010 BJ	2180 J	782 J
Selenium	7782-49-2	10 ST	U	UJ	U	UJ
Silver	7440-22-4	50 ST	U	0.57 BJ-	U	U
Sodium	7440-23-5	20000 ST	13100	12600 J	13700 J	14100 J
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	1.4 B	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	U	U

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

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

Units in ug/l		Sample ID	8G-1	8G-1	8G-1	8G-1
		Sample_date	02/23/15	08/13/15	02/23/16	08/02/16
		Depth of Well BGS	114'	114'	114'	114'
		Depth to bottom screen, relative to MSL	20'	20'	20'	20'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	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	50.4 B	52.8 B	78.1 J	78.6 J
Beryllium	7440-41-7	3 GV	UB	U	U	U
Boron	7440-42-8	1000 ST	26.4 B	UJ	35.6 J	24.9 J
Cadmium	7440-43-9	5 ST	UB	U	0.30 J	0.2 J
Calcium	7440-70-2	--	30300	38800 J	46400	56400
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	4.8 B	23.4	4.6 J	5.3 J
Cobalt	7440-48-4	--	U	U	UB	U
Copper	7440-50-8	200 ST	UB	UB	UB	0.9 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	35.2 B	201	U	U
Lead	7439-92-1	25 ST	U	10.2	2.1 J	5.3
Magnesium	7439-95-4	35000 GV	9410	11600 J	14800	18300
Manganese	7439-96-5	300 ST#	18.0	15.7 J	8.4 J	10.6 J
Mercury	7439-97-6	0.7 ST	U	UJ	U	U
Nickel	7440-02-0	100 ST	9.2 B	6.8 B	7.8 J	5.7 J
Potassium	7440-09-7	--	3680 B	2670 B	3160 J	2370 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	***148000***	***55100***	***72200***	***47200*** J
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	36.2	UB	4.9 J	UB

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

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

Units in ug/l		Sample ID	8M-1	8M-1	8M-1	8M-1
		Sample_date	02/23/15	08/13/15	02/23/16	08/02/16
		Depth of Well BGS	270'	270'	270'	270'
		Depth to bottom screen, relative to MSL	-134'	-134'	-134'	-134'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	22.6 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	44.4 B	47.2 B	47.5 J	45.3 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	259	320 BJ	325	297
Cadmium	7440-43-9	5 ST	U	U	0.20 J	U
Calcium	7440-70-2	--	58700	60200 J	56600	54700
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	UB	U	U
Cobalt	7440-48-4	--	9.1 B	10.1 B	10.8 J	10.2 J
Copper	7440-50-8	200 ST	UB	UB	3.3 J	2.3 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	16.6 B	41.8 B	U	U
Lead	7439-92-1	25 ST	3.8	15.6	1.8 J	8.4
Magnesium	7439-95-4	35000 GV	***35100***	***36600 J***	***36100***	34800
Manganese	7439-96-5	300 ST#	36.6	41.4 J	45.2	42.9
Mercury	7439-97-6	0.7 ST	U	UJ	U	U
Nickel	7440-02-0	100 ST	20.8 B	23.3 B	24.6 J	23.1 J
Potassium	7440-09-7	--	8160	8580	8950 J	8070
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	***90300***	***94400***	***96000***	***89600 J***
Thallium	7440-28-0	0.5 GV	U	U	U	***2.3 J***
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	9.3 J	UB

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

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

Units in ug/l		Sample ID	8M-2	8M-2	8M-2	8M-2
		Sample_date	02/23/15	08/13/15	02/23/16	08/02/16
		Depth of Well BGS	383'	383'	383'	383'
		Depth to bottom screen, relative to MSL	-248'	-248'	-248'	-248'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	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	5.5 B	5.3 B	U	U
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	19.2 B	UJ	21.8 J	19.3 J
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	10800	11600 J	11700	11400
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	UB	U	U
Cobalt	7440-48-4	--	U	U	UB	U
Copper	7440-50-8	200 ST	U	U	UB	0.3 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	21.9 B	U	U	U
Lead	7439-92-1	25 ST	U	10.7	1.5 J	6.1
Magnesium	7439-95-4	35000 GV	5700	6350 J	6470	6360
Manganese	7439-96-5	300 ST#	13.2 B	13.2 BJ	12.9 J	10.7 J
Mercury	7439-97-6	0.7 ST	U	UJ	U	U
Nickel	7440-02-0	100 ST	1.6 B	UB	U	U
Potassium	7440-09-7	--	1300 B	1190 B	769 J	U
Selenium	7782-49-2	10 ST	6.5	3.5 B	UJ	U
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	10700	11600	12200	11800 J
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	UB	UB	U	U

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

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

Units in ug/l		Sample ID	9G-1	9G-1	9G-1	9G-1
		Sample_date	08/09/13	08/25/14	08/27/15	08/09/16
		Depth of Well BGS	68'	68'	68'	68'
		Depth to bottom screen, relative to MSL	23'	23'	23'	23'
		Gradient relative to MSW	UP	UP	UP	UP
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	UB	U
Antimony	7440-36-0	3 ST	U	U	U	U
Arsenic	7440-38-2	25 ST	U	U	U	U
Barium	7440-39-3	1000 ST	U	UB	5.1 B	U
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	5.5 B	UB	UB	6.4 J
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	1000 B	1620 B	3330 BJ	4530
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	UB	UB	2.4 J
Cobalt	7440-48-4	--	U	U	U	U
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#	UB	UB	U	U
Lead	7439-92-1	25 ST	U	U	1.4 BJ	U
Magnesium	7439-95-4	35000 GV	288 B	527 B	1240 BJ	1400
Manganese	7439-96-5	300 ST#	UB	UB	UBJ	4.1 J
Mercury	7439-97-6	0.7 ST	U	U	UJ	UB
Nickel	7440-02-0	100 ST	UB	0.6 B	UB	7.4 J
Potassium	7440-09-7	--	UBJ	417 B	UBJ	U
Selenium	7782-49-2	10 ST	U	U	UJ	UJ
Silver	7440-22-4	50 ST	U	U	UJ	U
Sodium	7440-23-5	20000 ST	3250 B	UB	3900 BJ	7040 J
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	UB	UB	UB	U

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

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

Units in ug/l			Sample ID	10G-1	10G-1	10G-1	10G-1
			Sample_date	08/07/13	08/21/14	08/14/15	08/10/16
			Depth of Well BGS	69'	69'	69'	69'
			Depth to bottom screen, relative to MSL	20'	20'	20'	20'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		UB	UB	UB	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST	36.5	B	49.5 B	101 B	104 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST	15.8	B	UB	UJ	14.4 J
Cadmium	7440-43-9	5 ST		UB	U	0.4 B	0.3 J
Calcium	7440-70-2	--	7580		11000	14700 J	12700
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST	15.1		UB	30	7.4 J
Cobalt	7440-48-4	--		U	U	0.8 B	U
Copper	7440-50-8	200 ST	1.1	B	UB	UB	UB
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		UB	UB	170	59.1 J
Lead	7439-92-1	25 ST	3.9		U	8.8	2.3 J
Magnesium	7439-95-4	35000 GV	2150	B	3070 B	4670 BJ	5130
Manganese	7439-96-5	300 ST#	166		209	258 J	224
Mercury	7439-97-6	0.7 ST		U	U	UJ	UB
Nickel	7440-02-0	100 ST		UB	1.8 B	7 B	4 J
Potassium	7440-09-7	--		UBJ	1480 B	2330 B	1180 J
Selenium	7782-49-2	10 ST		U	U	U	UJ
Silver	7440-22-4	50 ST		U	U	UB	U
Sodium	7440-23-5	20000 ST	***37000***		***30800***	***64100***	***73500*** J
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		UB	U	UB	U

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

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

Units in ug/l		Sample ID	10M-1	10M-1	10M-1	10M-1
		Sample_date	02/27/15	08/14/15	02/28/16	08/10/16
		Depth of Well BGS	256	256	256	256
		Depth to bottom screen, relative to MSL	-167	-167	-167	-167
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	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	UBJ	3.5 B	U	U
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	72.8 B	79.4 BJ	71.0 J	70.5 J
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	88700	81200 J	78500	73100
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	U	U	U
Cobalt	7440-48-4	--	U	U	U	0.7 J
Copper	7440-50-8	200 ST	U	U	UB	UB
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	13.9 B	U	U	U
Lead	7439-92-1	25 ST	2.3 B	14.2	2.5 J	3.3 J
Magnesium	7439-95-4	35000 GV	***58300***	***49600 J***	***49100***	***46100***
Manganese	7439-96-5	300 ST#	3.0 B	UJ	3.5 J	3.6 J
Mercury	7439-97-6	0.7 ST	U	UJ	U	UB
Nickel	7440-02-0	100 ST	UB	3.9 B	4.2 J	6 J
Potassium	7440-09-7	--	UB	2780 B	2570 J	2100 J
Selenium	7782-49-2	10 ST	U	U	UJ	UJ
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	***32000***	***30600***	***32800***	***33900*** J
Thallium	7440-28-0	0.5 GV	U	***2.3 B***	U	UB
Vanadium	7440-62-2	--	2.1 B	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	U	U

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

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

Units in ug/l		Sample ID	11G-1	11G-1	11G-1	11G-1
		Sample_date	02/20/15	08/19/15	03/07/16	08/09/16
		Depth of Well BGS	145'	145'	145'	145'
		Depth to bottom screen, relative to MSL	22'	22'	22'	22'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	71.8 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	66.9 B	61.2 B	63.7 J	58.3 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	888	942 J	***1010***	930
Cadmium	7440-43-9	5 ST	U	U	0.20 J	U
Calcium	7440-70-2	--	6690	5380 J	4090	3150
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	3.4 B	UB	5.0 J	3.3 J
Cobalt	7440-48-4	--	29.4 B	29.4 B	31.4 J	27.5 J
Copper	7440-50-8	200 ST	25.4	26.1	27.6	25.3
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	***416***	***333***	***273 J-***	***321***
Lead	7439-92-1	25 ST	U	9.3	3.6 J	2.6 J
Magnesium	7439-95-4	35000 GV	5550	4810 BJ	4310	4090
Manganese	7439-96-5	300 ST#	***4180***	***3670 J***	***3390***	***2720***
Mercury	7439-97-6	0.7 ST	0.13 B	0.11 BJ	UB	UB
Nickel	7440-02-0	100 ST	***116***	***113***	***134***	***114***
Potassium	7440-09-7	--	79700	76500	80700	77300
Selenium	7782-49-2	10 ST	U	U	U	UJ
Silver	7440-22-4	50 ST	U	UB	U	U
Sodium	7440-23-5	20000 ST	***225000***	***230000***	***259000 J***	***240000 J***
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	UB	UB	U	U

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

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

Units in ug/l		Sample ID	11G-2	11G-2	11G-2	11G-2
		Sample_date	02/20/15	08/19/15	03/07/16	08/09/16
		Depth of Well BGS	220'	220'	220'	220'
		Depth to bottom screen, relative to MSL	-51	-51	-51	-51
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	76.8 J	U
Antimony	7440-36-0	3 ST	U	UB	U	U
Arsenic	7440-38-2	25 ST	U	U	U	3.9 J
Barium	7440-39-3	1000 ST	228	205	203	212
Beryllium	7440-41-7	3 GV	U	0.7 B	U	U
Boron	7440-42-8	1000 ST	***1590***	***1530***	***1680***	***1660***
Cadmium	7440-43-9	5 ST	U	0.7 B	U	U
Calcium	7440-70-2	--	38700	30800 J	29400	25800
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	3.2 B	UB	3.4 J	3.1 J
Cobalt	7440-48-4	--	42.0 B	41.4 B	41.2 J	41.8 J
Copper	7440-50-8	200 ST	23.8 B	23.4 B	23.6 J	28.1
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	***692***	***598***	***512 J-***	***605***
Lead	7439-92-1	25 ST	2.2 B	2.2 BJ	3.3 J	2.6 J
Magnesium	7439-95-4	35000 GV	21400	20800 J	20500	19700
Manganese	7439-96-5	300 ST#	***5780***	***4720 J***	***4400***	***3500***
Mercury	7439-97-6	0.7 ST	0.11 B	UJ	UB	UB
Nickel	7440-02-0	100 ST	***178***	***175***	***189***	***195***
Potassium	7440-09-7	--	98200	91000 J	97700	104000
Selenium	7782-49-2	10 ST	U	UJ	U	UJ
Silver	7440-22-4	50 ST	U	UJ	U	U
Sodium	7440-23-5	20000 ST	***425000***	***393000 J***	***411000 J***	***413000 J***
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	UB	UB	U	U

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

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

Units in ug/l		Sample ID	11M-1	11M-1	11M-1	11M-1
		Sample_date	08/12/13	08/22/14	08/19/15	08/09/16
		Depth of Well BGS	320'	320'	320'	320'
		Depth to bottom screen, relative to MSL	-154'	-154'	-154'	-154'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	UB	U
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	4.8 B	5.2 B	5 B	U
Beryllium	7440-41-7	3 GV	0.4 B	U	U	U
Boron	7440-42-8	1000 ST	34.1 B	35.7 B	UB	26.2 J
Cadmium	7440-43-9	5 ST	UB	U	U	U
Calcium	7440-70-2	--	40200	38100	41400 J	40000
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	UB	U	U
Cobalt	7440-48-4	--	0.6 B	0.6 B	0.9 B	1.1 J
Copper	7440-50-8	200 ST	UB	UB	UB	UB
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	UBJ	UB	U	129
Lead	7439-92-1	25 ST	4.8 J	U	1.6 BJ	3.5 J
Magnesium	7439-95-4	35000 GV	23300	21000	22900 J	22500
Manganese	7439-96-5	300 ST#	112	129	144 J	158
Mercury	7439-97-6	0.7 ST	UB	U	UJ	UB
Nickel	7440-02-0	100 ST	8.9 B	7.7 B	7.2 B	6.9 J
Potassium	7440-09-7	--	1960 B	2190 B	2660 BJ	1970 J
Selenium	7782-49-2	10 ST	4.1 BJ+	U	UJ	UJ
Silver	7440-22-4	50 ST	UB	U	UJ	U
Sodium	7440-23-5	20000 ST	***36100***	***35500***	***39600 J***	***39300 J***
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	0.6 B	0.9 B	U	U
Zinc	7440-66-6	2000 GV	UB	U	UB	U

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

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

Units in ug/l		Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW	12M-1 03/03/15 338' -163' DOWN	12M-1 09/03/15 338' -163' DOWN	12M-1 03/04/16 338' -163' DOWN	12M-1 08/11/16 338' -163' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	34.6 J	U
Antimony	7440-36-0	3 ST	U	U	U	U
Arsenic	7440-38-2	25 ST	***28.6 J***	***27***	***29.6***	***31.8***
Barium	7440-39-3	1000 ST	16.7 BJ	17.2 B	18.5 J	19.2 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	216	188	227	224
Cadmium	7440-43-9	5 ST	U	UB	0.2 J	U
Calcium	7440-70-2	--	73700	76600	73400	81200
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	U	U	U
Cobalt	7440-48-4	--	2.9 B	3.1 B	3.1 J	2.9 J
Copper	7440-50-8	200 ST	2.6 B	UB	2.2 J	UB
Cyanide	57-12-5	200 ST	U	U	U	UJ
Iron	7439-89-6	300 ST#	***2010***	***2170***	***1620 J-***	***2320***
Lead	7439-92-1	25 ST	U	9.7	7	6.4
Magnesium	7439-95-4	35000 GV	***44500***	***42300***	***41100***	***44400***
Manganese	7439-96-5	300 ST#	***1430***	***1530***	***1510***	***1630***
Mercury	7439-97-6	0.7 ST	U	UB	UB	UJ
Nickel	7440-02-0	100 ST	10.1 B	8.6 B	9.5 J	9.9 J
Potassium	7440-09-7	--	UB	4130 B	4290 J	3780 J
Selenium	7782-49-2	10 ST	U	2.4 B	U	U
Silver	7440-22-4	50 ST	U	UBJ	U	UJ
Sodium	7440-23-5	20000 ST	***49300***	***50200***	***54800 J***	***61100***
Thallium	7440-28-0	0.5 GV	U	***1.9 B***	U	U
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	UB	7.9 B	U	4.5 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	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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

Units in ug/l		Sample ID	13G-1	13G-1	13G-1	13G-1
		Sample_date	02/26/15	08/20/15	02/28/16	08/09/16
		Depth of Well BGS	93'	93'	93'	93'
		Depth to bottom screen, relative to MSL	17'	17'	17'	17'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	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	18.3 BJ	20.6 B	20.2 J	22 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	13.9 B	UB	16.1 J	18.1 J
Cadmium	7440-43-9	5 ST	U	U	0.20 J	U
Calcium	7440-70-2	--	16400	17600 J	17300	18000
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	UB	U	2.7 J
Cobalt	7440-48-4	--	U	U	U	U
Copper	7440-50-8	200 ST	1.3 B	UB	UB	UB
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	44.1 B	U	U	U
Lead	7439-92-1	25 ST	U	1.6 BJ	1.3 J	2.1 J
Magnesium	7439-95-4	35000 GV	6300	6710 J	6460	6910
Manganese	7439-96-5	300 ST#	4.4 B	5.6 BJ	5.5 J	4.1 J
Mercury	7439-97-6	0.7 ST	U	UJ	U	UB
Nickel	7440-02-0	100 ST	UB	UB	7.2 J	7.1 J
Potassium	7440-09-7	--	UB	1610 BJ	976 J	826 J
Selenium	7782-49-2	10 ST	U	UJ	UJ	UJ
Silver	7440-22-4	50 ST	U	UJ	U	U
Sodium	7440-23-5	20000 ST	12700	12800 J	14200	14000 J
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	UB	29.4	16.0 J	19.1 J

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

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

Units in ug/l		Sample ID	13M-1	13M-1	13M-1	13M-1
		Sample_date	02/26/15	08/20/15	02/28/16	08/09/16
		Depth of Well BGS	265'	265'	265'	265'
		Depth to bottom screen, relative to MSL	-155	-155	-155	-155
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	34.1 J	U
Antimony	7440-36-0	3 ST	U	UB	U	U
Arsenic	7440-38-2	25 ST	U	U	U	U
Barium	7440-39-3	1000 ST	17.8 BJ	19.3 B	20.2 J	20.4 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	108	114	134	129
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	106000	108000 J	109000	103000
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	--	0.70 B	1.4 B	UB	1 J
Copper	7440-50-8	200 ST	0.60 B	UB	2.3 J	UB
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	101	92.8 B	132	158
Lead	7439-92-1	25 ST	U	4.4 J	3.1 J	4.1 J
Magnesium	7439-95-4	35000 GV	***79700***	***77400 J***	***79100***	***75700***
Manganese	7439-96-5	300 ST#	18.3	19.7 J	22.5	21.5
Mercury	7439-97-6	0.7 ST	U	UJ	U	UB
Nickel	7440-02-0	100 ST	8.3 B	8.7 B	8.5 J	9.5 J
Potassium	7440-09-7	--	5610	4380 BJ	4100 J	3930 J
Selenium	7782-49-2	10 ST	U	UJ	UJ	UJ
Silver	7440-22-4	50 ST	U	UJ	U	U
Sodium	7440-23-5	20000 ST	***47100***	***54200 J***	***54500***	***50700 J***
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	0.80 B	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	U	U

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

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

Units in ug/l		Sample ID	14G-1A	14G-1A	14G-1A	14G-1A
		Sample_date	02/18/15	08/17/15	02/24/16	08/02/16
		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
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	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	28.3 B	35.2 B	32.2 J	31 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	106	137 BJ	139	125
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	38200	42400 J	42900	42400
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	1.4 B	UB	U	U
Cobalt	7440-48-4	--	4.3 B	3.8 B	4.3 J	3.8 J
Copper	7440-50-8	200 ST	UB	UB	UB	0.8 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	U	U	U	U
Lead	7439-92-1	25 ST	3.1	13.6	1.9 J	7
Magnesium	7439-95-4	35000 GV	21200	23800 J	24600	24800
Manganese	7439-96-5	300 ST#	U	UJ	U	U
Mercury	7439-97-6	0.7 ST	U	UJ	U	U
Nickel	7440-02-0	100 ST	4.4 B	4.6 B	5.6 J	5.7 J
Potassium	7440-09-7	--	3990 B	3930 B	3870 J	2940 J
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	***44200***	***51100***	***56900***	***56500*** J
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	0.80 B	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	U	U

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

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

Units in ug/l		Sample ID	14G-2	14G-2	14G-2	14G-2
		Sample_date	02/18/15	08/17/15	02/24/16	08/02/16
		Depth of Well BGS	264'	264'	264'	264'
		Depth to bottom screen, relative to MSL	-103	-103	-103	-103
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	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	57.2 B	54 B	52.4 J	49.2 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	134	146 BJ	141	130
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	47700	46000 J	44300	42300
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	4.9 B	UB	2.5 J	2.6 J
Cobalt	7440-48-4	--	5.1 B	4.7 B	4.6 J	4.3 J
Copper	7440-50-8	200 ST	U	U	UB	U
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	38.2 B	66.5 B	U	U
Lead	7439-92-1	25 ST	U	11.4	2.0 J	7
Magnesium	7439-95-4	35000 GV	25100	24800 J	25100	24500
Manganese	7439-96-5	300 ST#	UB	UJ	U	U
Mercury	7439-97-6	0.7 ST	U	UJ	U	U
Nickel	7440-02-0	100 ST	16.9 B	12.6 B	22.2 J	18.2 J
Potassium	7440-09-7	--	2900 B	2440 B	2150 J	1680 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	***47500***	***48600***	***50900***	***46700*** J
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	0.80 B	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	U	U

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

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

Units in ug/l		Sample ID	14M-1	14M-1	14M-1	14M-1
		Sample_date	02/18/15	08/17/15	02/24/16	08/02/16
		Depth of Well BGS	355'	355'	355'	355'
		Depth to bottom screen, relative to MSL	-194'	-194'	-194'	-194'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	69.4 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	33.4 B	35.1 B	38.2 J	35.6 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	***1030***	***1160 J***	***1150***	***1060***
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	107000	108000 J	108000	103000
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	3.5 B	UB	U	U
Cobalt	7440-48-4	--	12.2 B	12.3 B	13.1 J	13 J
Copper	7440-50-8	200 ST	UB	UB	5.2 J	5.5 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	***755***	***646***	***614***	***542***
Lead	7439-92-1	25 ST	4.5	21.1	2.6 J	10
Magnesium	7439-95-4	35000 GV	***60500***	***61600 J***	***65100***	***62300***
Manganese	7439-96-5	300 ST#	***5070***	***5430 J***	***5750***	***5630***
Mercury	7439-97-6	0.7 ST	U	UJ	U	0.078 J
Nickel	7440-02-0	100 ST	99.9	97.9	***102***	***101***
Potassium	7440-09-7	--	34800	39000	41400 J	36800
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	***277000***	***289000***	***306000***	***289000*** J
Thallium	7440-28-0	0.5 GV	U	U	U	***9.8 J***
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	U	U

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

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

Units in ug/l		Sample ID	15G-1	15G-1	15G-1	15G-1
		Sample_date	08/19/13	08/25/14	08/19/15	08/09/16
		Depth of Well BGS	160'	160'	160'	160'
		Depth to bottom screen, relative to MSL	23'	23'	23'	23'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	UB	UB	33.4 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	12.3 B	14.2 B	16.7 B	17.6 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	UB	UB	UJ	12.9 J
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	16300	16900	18900 J	19900
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	17.4	UB	2.4 J
Cobalt	7440-48-4	--	0.50 B	0.5 B	U	0.4 J
Copper	7440-50-8	200 ST	UB	UB	U	UB
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	20.3 B	UB	U	98.9 J
Lead	7439-92-1	25 ST	5.8	U	9	2 J
Magnesium	7439-95-4	35000 GV	7910	6880	7300 J	7850
Manganese	7439-96-5	300 ST#	UB	UB	UJ	12.2 J
Mercury	7439-97-6	0.7 ST	U	U	UJ	UB
Nickel	7440-02-0	100 ST	UB	10.1 B	UB	3 J
Potassium	7440-09-7	--	UB	1320 B	1760 B	1260 J
Selenium	7782-49-2	10 ST	U	U	U	UJ
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	4940 B	5760	5830	7630 J
Thallium	7440-28-0	0.5 GV	U	U	U	UB
Vanadium	7440-62-2	--	UB	0.5 B	U	U
Zinc	7440-66-6	2000 GV	UB	U	UB	U

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

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

Units in ug/l		Sample ID	16G-1	16G-1	16G-1	16G-1
		Sample_date	08/07/13	08/21/14	08/14/15	08/10/16
		Depth of Well BGS	57'	57'	57'	57'
		Depth to bottom screen, relative to MSL	20'	20'	20'	20'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	U	UB	UB	U
Antimony	7440-36-0	3 ST	U	1.9 B	U	U
Arsenic	7440-38-2	25 ST	U	U	U	U
Barium	7440-39-3	1000 ST	13.7 B	14.8 B	13.7 B	18.9 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	12.2 B	UB	UJ	7.7 J
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	7270	7190	7160 J	9110
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	U	UB	U
Cobalt	7440-48-4	--	U	U	U	U
Copper	7440-50-8	200 ST	U	U	U	U
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	UB	UB	33.8 B	U
Lead	7439-92-1	25 ST	U	U	3.1	U
Magnesium	7439-95-4	35000 GV	1510 B	1540 B	1540 BJ	2110
Manganese	7439-96-5	300 ST#	UB	UB	UJ	U
Mercury	7439-97-6	0.7 ST	U	U	UJ	UB
Nickel	7440-02-0	100 ST	U	U	U	U
Potassium	7440-09-7	--	UBJ	1200 B	1240 B	U
Selenium	7782-49-2	10 ST	U	U	U	UJ
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	2720 B	UB	3150 B	1490 J
Thallium	7440-28-0	0.5 GV	***1.9 B***	U	***2.4 B***	UB
Vanadium	7440-62-2	--	U	0.5 B	U	U
Zinc	7440-66-6	2000 GV	62.4	U	UB	U

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

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

Units in ug/l		Sample ID	16M-1	16M-1	16M-1	16M-1
		Sample_date	03/03/15	08/14/15	02/28/16	08/10/16
		Depth of Well BGS	240'	240'	240'	240'
		Depth to bottom screen, relative to MSL	-163	-163	-163	-163
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	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	5.9 BJ	5.9 B	U	U
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	43.3 B	50.5 BJ	54.6 J	56 J
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	62000	58400 J	60100	56200
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	UB	U	U
Cobalt	7440-48-4	--	0.80 B	1 B	UB	1.5 J
Copper	7440-50-8	200 ST	1.0 B	UB	UB	UB
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	U	35.3 B	U	U
Lead	7439-92-1	25 ST	2.5 B	13.5	3.1 J	4.4 J
Magnesium	7439-95-4	35000 GV	***39100***	35000 J	***37200***	***35100***
Manganese	7439-96-5	300 ST#	8.5 B	UJ	7.7 J	7.4 J
Mercury	7439-97-6	0.7 ST	U	UJ	U	UB
Nickel	7440-02-0	100 ST	7.5 B	6.5 B	6.8 J	8.1 J
Potassium	7440-09-7	--	UB	2640 B	2600 J	1360 J
Selenium	7782-49-2	10 ST	U	U	UJ	UJ
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	***33200***	***33600***	***40300***	***38200*** J
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	2.5 B	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	U	U

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

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

Units in ug/l			Sample ID	18G-1	18G-1	18G-1	18G-1
			Sample_date	02/20/15	08/20/15	02/23/16	08/03/16
			Depth of Well BGS	157'	157'	157'	157'
			Depth to bottom screen, relative to MSL	11'	11'	11'	11'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		UB	UB	41 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		48.1 B	57.4 B	45.2 J	42.9 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		217	266	275	238
Cadmium	7440-43-9	5 ST		UB	0.4 B	0.4 J	0.3 J
Calcium	7440-70-2	--		6810	14400 J	8890	7400
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		1.4 B	U	U	U
Cobalt	7440-48-4	--		9.9 B	14.5 B	14.6 J	11.6 J
Copper	7440-50-8	200 ST		UB	8.8 B	8.1 J	11.3 J
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		***16.5 B***	U	***63.1 J***	***52.4 J***
Lead	7439-92-1	25 ST		U	UJ	0.92 J	5.4
Magnesium	7439-95-4	35000 GV		4980 B	11000 J	6300	5130
Manganese	7439-96-5	300 ST#		***14500***	***23300 DJ***	***15800***	***12000***
Mercury	7439-97-6	0.7 ST		U	UJ	U	U
Nickel	7440-02-0	100 ST		22.7 B	25 B	34.5 J	31 J
Potassium	7440-09-7	--		26200	22900 J	24400 J	23200
Selenium	7782-49-2	10 ST		U	UJ	UJ	U
Silver	7440-22-4	50 ST		3.8 B	2 BJ-	U	2.8 J
Sodium	7440-23-5	20000 ST		***111000***	***122000 J***	***96500***	***97600*** J
Thallium	7440-28-0	0.5 GV		U	U	U	***17.8***
Vanadium	7440-62-2	--		U	U	U	U
Zinc	7440-66-6	2000 GV		UB	UB	U	U

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

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

Units in ug/l		Sample ID	18G-2	18G-2	18G-2	18G-2
		Sample_date	02/20/15	08/20/15	02/23/16	08/03/16
		Depth of Well BGS	197'	197'	197'	197'
		Depth to bottom screen, relative to MSL	-29	-29	-29	-29
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	U	U
Antimony	7440-36-0	3 ST	U	UB	U	U
Arsenic	7440-38-2	25 ST	U	U	U	U
Barium	7440-39-3	1000 ST	51.2 B	52.2 B	53.8 J	50.2 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	171	181	174	154
Cadmium	7440-43-9	5 ST	U	U	0.30 J	U
Calcium	7440-70-2	--	18600	17900 J	20700	19000
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	UB	U	U
Cobalt	7440-48-4	--	19.0 B	22.2 B	24.3 J	21.1 J
Copper	7440-50-8	200 ST	UB	3.8 B	4.3 J	4.1 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	***10.8 B***	U	U	U
Lead	7439-92-1	25 ST	U	UJ	1.6 J	5.8
Magnesium	7439-95-4	35000 GV	6370	6330 J	7630	6810
Manganese	7439-96-5	300 ST#	***3920***	***5520 J***	***4570***	***5150***
Mercury	7439-97-6	0.7 ST	U	UJ	U	U
Nickel	7440-02-0	100 ST	12.5 B	15.7 B	15.8 J	12.8 J
Potassium	7440-09-7	--	10300	12600 J	10500 J	10500
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	***81100***	***90300 J***	***98600***	***91400*** J
Thallium	7440-28-0	0.5 GV	U	U	U	***7.2 J***
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	U	U

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

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

Units in ug/l		Sample ID	22M-1	22M-1	22M-1	22M-1
		Sample_date	03/03/15	08/21/15	03/07/16	08/10/16
		Depth of Well BGS	222'	222'	222'	222'
		Depth to bottom screen, relative to MSL	-164'	-164'	-164'	-164'
		Gradient relative to MSW	UP	UP	UP	UP
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	27.7 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	30.2 BJ	29.4 B	30.9 J	28.5 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	35.9 B	37.5 B	43.9 J	36.2 J
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	17300	16500 J	15900	15200
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	U	U	U
Cobalt	7440-48-4	--	U	0.5 B	0.80 J	0.5 J
Copper	7440-50-8	200 ST	U	UB	U	UB
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	U	U	UJ	U
Lead	7439-92-1	25 ST	U	1.4 BJ	2.4 J	1.4 J
Magnesium	7439-95-4	35000 GV	5390	5000 J	4870	4630
Manganese	7439-96-5	300 ST#	UB	UBJ	U	U
Mercury	7439-97-6	0.7 ST	U	UJ	UB	UB
Nickel	7440-02-0	100 ST	UB	U	U	U
Potassium	7440-09-7	--	UB	2070 BJ	2550 J	910 J
Selenium	7782-49-2	10 ST	U	UJ	U	UJ
Silver	7440-22-4	50 ST	U	0.67 BJ-	U	U
Sodium	7440-23-5	20000 ST	15400	14000 J	15400 J	16000 J
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	0.90 B	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	U	U

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

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

Units in ug/l		Sample ID	23M-1	23M-1	23M-1	23M-1
		Sample_date	02/25/15	08/21/15	03/02/16	08/09/16
		Depth of Well BGS	240'	240'	240'	240'
		Depth to bottom screen, relative to MSL	-164'	-164'	-164'	-164'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	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	5.6 B	5.3 B	U	U
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	73.3 B	73.7 B	78.5 J	73.7 J
Cadmium	7440-43-9	5 ST	U	U	U	U
Calcium	7440-70-2	--	41200	40200 J	39200	36800
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	UB	U	U
Cobalt	7440-48-4	--	1.3 B	1.2 B	1.2 J	1.3 J
Copper	7440-50-8	200 ST	UB	U	U	UB
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	U	U	UJ	U
Lead	7439-92-1	25 ST	U	3.6 J	4.8 J	2.6 J
Magnesium	7439-95-4	35000 GV	19300	19500 J	18900	18200
Manganese	7439-96-5	300 ST#	49.1	47 J	51.4	47.8
Mercury	7439-97-6	0.7 ST	U	UJ	UB	UB
Nickel	7440-02-0	100 ST	1.1 B	UB	U	U
Potassium	7440-09-7	--	2330 B	2280 BJ	1900 J	822 J
Selenium	7782-49-2	10 ST	U	UJ	U	UJ
Silver	7440-22-4	50 ST	U	UJ	U	U
Sodium	7440-23-5	20000 ST	***29700***	***33500 J***	***29100 J***	***27700 J***
Thallium	7440-28-0	0.5 GV	U	U	U	U
Vanadium	7440-62-2	--	1.4 B	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	U	U

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

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

Units in mg/l		Sample ID	GM-1D*	GM-1D*	GM-1D*	GM-1D*	GM-1D*
		Sample_date	02/27/15	04/23/15	06/24/15	08/27/15	10/30/15
		Depth of Well BGS	399'	399'	399'	399'	399'
		Depth to bottom screen, relative to MSL	-247'	-247'	-247'	-247'	-247'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---	477 D	461 D	463 D	473 D	460 D
Biochemical Oxygen Demand (BOD)	BOD5	---	5 U		10 U	3 U	
Bromide	24959-67-9	2 GV	1.30 J	1.36	1.50	1.43	1.29
Chloride (as Cl)	16887-00-6	250 ST	243 DJ	215 D	227 D	239 D	237 D
Cod - Chemical Oxygen Demand	COD	---	23.6 J	23.6	26.7	20.2	27.6
Color	COLOR	---	15 U		15 U	15 U	
Hardness (as CaCO3)	HARD	---	1300 D	550 D	500 D	400 D	1200 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	***5.68 D***	***4.92***	***5.55 D***	***4.66***	***5.61 D***
Nitrogen, Kjeldahl, Total	KN	---	1.1 UB	4.49 D	5.06 D	5.63 D	5.17 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U
Nitrogen, Nitrite	14797-65-0	1 ST	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	0.005 U	0.005 U	0.005 U	0.005 U	***0.0067***
Sulfate (as SO4)	14808-79-8	250 ST	42.7	42.6	39.8	46.9	40
Total Dissolved Solids	E-10173	---	746	722	762	819	752
Total Organic Carbon	TOC	---	27.2 J	8.9	9.6	8.6	8.6

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

Units in mg/l			Sample ID	GM-1D*	GM-1D*	GM-1D*	GM-1D*	GM-1D*
			Sample_date	12/23/15	03/01/16	04/22/16	06/29/16	08/03/16
			Depth of Well BGS	399'	399'	399'	399'	399'
			Depth to bottom screen, relative to MSL	-247'	-247'	-247'	-247'	-247'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV						
Alkalinity, Total (as CaCO3)	ALK	---		473 D	475 D	500 D	451 D	470 D
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	7	U	U
Bromide	24959-67-9	2 GV		1.41	1.68 J	1.53	1.63	1.35
Chloride (as Cl)	16887-00-6	250 ST		189 D	246 D	193 D	437 D	198 D
Cod - Chemical Oxygen Demand	COD	---		33.7	17.3 J	21.9	75.9	39.6
Color	COLOR	---		10.0	5.00	10	5	20
Hardness (as CaCO3)	HARD	---		350 D	410 D	460 D	400 D	460 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***6.18 D***	***5.89 D***	***5.48 D***	***6.21 D***	***6.29 D***
Nitrogen, Kjeldahl, Total	KN	---		6.27 D	5.92	4.99 D	3.97	5.33 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	U	U	0.44	U
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	***0.0065***	U	U
Sulfate (as SO4)	14808-79-8	250 ST		45.4	47.9	38.8	60.3 D	38
Total Dissolved Solids	E-10173	---		852	788	692	808	399
Total Organic Carbon	TOC	---		12.7	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 D-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	GM-1I	GM-1I	GM-1I	GM-1I
			Sample_date	02/27/15	09/03/15	03/07/16	08/03/16
			Depth of Well BGS	285'	285'	285'	285'
			Depth to bottom screen, relative to MSL	-138'	-138'	-138'	-138'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		191 D	189	181 D	190 D
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		59.5 DJ	76.2 D	61.8 D	49.5 D
Cod - Chemical Oxygen Demand	COD	---		U	U	UJ	11.8
Color	COLOR	---		U	U	U	10
Hardness (as CaCO3)	HARD	---		300 D	210 D	196 D	200 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	0.10	U
Nitrogen, Kjeldahl, Total	KN	---		U	0.14 J	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		6.35 D	6.15 D	5.86 D	6.22 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		23.3	27.7	30.3	23.9
Total Dissolved Solids	E-10173	---		348	383	344	702
Total Organic Carbon	TOC	---		1.4 J	2.5	1.20	1.8

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
--	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 D-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l		Sample ID	GM-1S	GM-1S	GM-1S	GM-1S
		Sample_date	08/19/13	08/28/14	09/03/15	08/03/16
		Depth of Well BGS	135'	135'	135'	135'
		Depth to bottom screen, relative to MSL	19'	19'	19'	19'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	--	175 D	177 D	187 D	192 D
Biochemical Oxygen Demand (BOD)	BOD5	--	U	U	U	U
Bromide	24959-67-9	2 GV	U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST	58.5 D	54.9 D	84.9 D	58.6 D
Cod - Chemical Oxygen Demand	COD	--	U	12.7	U	13.9
Color	COLOR	--	U	U	U	10
Hardness (as CaCO3)	HARD	--	188 DJ	240	60 D	190 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	U	U	U	UB
Nitrogen, Kjeldahl, Total	KN	--	U	U	1.7 DJ	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	6.53 D	6.43 D	6.54 D	5.55 D
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST	21.1	23.6	30.5	23.1
Total Dissolved Solids	E-10173	--	363	337	356	367
Total Organic Carbon	TOC	--	2.1	1.9	2.6	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 D-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	GM-2D	GM-2D	GM-2D	GM-2D
			Sample_date	08/22/13	08/28/14	09/01/15	08/08/16
			Depth of Well BGS	398'	398'	398'	398'
			Depth to bottom screen, relative to MSL	-248'	-248'	-248'	-248'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		17.7	18.5	18.4	20.4
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		4.67	3.29	5.11	3.96 J
Cod - Chemical Oxygen Demand	COD	---		U	U	U	35.9 J
Color	COLOR	---		U	U	U	5
Hardness (as CaCO3)	HARD	---		16	30	22	19
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	0.1	0.3 J
Nitrogen, Kjeldahl, Total	KN	---		0.15	U	1.72 D	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	U	UJ	U
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	0.0077
Sulfate (as SO4)	14808-79-8	250 ST		U	U	U	U
Total Dissolved Solids	E-10173	---		49	39	21	43
Total Organic Carbon	TOC	---		U	U	U	U

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

Units in mg/l			Sample ID	GM-2I	GM-2I	GM-2I	GM-2I
			Sample_date	08/22/13	08/28/14	09/01/15	08/08/16
			Depth of Well BGS	298'	298'	298'	298'
			Depth to bottom screen, relative to MSL	-136'	-136'	-136'	-136'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		95.2 D	114 D	111	112
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		17.6	13.3	20.3	15
Cod - Chemical Oxygen Demand	COD	---		U	U	U	U
Color	COLOR	---		U	U	U	5
Hardness (as CaCO3)	HARD	---		124 D	210	180 D	150 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	U	0.11
Nitrogen, Kjeldahl, Total	KN	---		U	U	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		3.55 D	4.79 D	4.75 DJ	5.65 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		10.5	10.2	11.4	10.2
Total Dissolved Solids	E-10173	---		174	193	169	198
Total Organic Carbon	TOC	---		U	U	U	U

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

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Leachate Indicators

Units in mg/l			Sample ID	GM-2S	GM-2S	GM-2S	GM-2S
			Sample_date	08/22/13	09/03/14	09/01/15	08/08/16
			Depth of Well BGS	149'	149'	149'	149'
			Depth to bottom screen, relative to MSL	12'	12'	12'	12'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		44.6 D	53.8	28.4	27.8
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		13.1	12.8	15.4	19.3
Cod - Chemical Oxygen Demand	COD	---		U	U	U	U
Color	COLOR	---		U	U	U	5
Hardness (as CaCO3)	HARD	---		64 D	68 D	48 D	54 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	0.17	0.12
Nitrogen, Kjeldahl, Total	KN	---		U	U	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		1.68	3.11 D	3.29 DJ	3.9 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	0.0077
Sulfate (as SO4)	14808-79-8	250 ST		16.6	12.4	10.7	12.3
Total Dissolved Solids	E-10173	---		120	113	107	158
Total Organic Carbon	TOC	---		U	9.2	1.6	U

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	
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Appendix D-3
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Leachate Indicators

Units in mg/l			Sample ID	4G-1	4G-1	4G-1	4G-1
			Sample_date	08/14/14	08/18/15	02/29/16	08/03/16
			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
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		157 D	183 D	178 D	161 D
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	1.55	U	U
Chloride (as Cl)	16887-00-6	250 ST		136 D	134 D	88.0 D	63.8 D
Cod - Chemical Oxygen Demand	COD	---		23.5	16.2	14.4	18.2
Color	COLOR	---		175 D	70		20
Hardness (as CaCO3)	HARD	---		150 D	84 D	58	44 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***5.57 D***	***13.6 D***	***14.7 D***	***10.6 D***
Nitrogen, Kjeldahl, Total	KN	---		6.35 D	11.7 D	11.2 D	7.45 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		UJ	UJ	U	U
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		21	25.1	25.6	15.2
Total Dissolved Solids	E-10173	---		364	376	320	277
Total Organic Carbon	TOC	---		6.7	8	4.27	4.1

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

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Leachate Indicators

Units in mg/l			Sample ID	4G-2	4G-2	4G-2	4G-2
			Sample_date	02/19/15	08/18/15	03/02/16	08/03/16
			Depth of Well BGS	211'	211'	211'	211'
			Depth to bottom screen, relative to MSL	-45'	-45'	-45'	-45'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		173 D	177 D	164 D	181 D
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	0.65	U	U
Chloride (as Cl)	16887-00-6	250 ST		63.7 D	75 D	72.3 D	65.3 D
Cod - Chemical Oxygen Demand	COD	---		U	U	UJ	13.9
Color	COLOR	---		U	15	10.0	20
Hardness (as CaCO3)	HARD	---		160 D	88 D	92 D	96 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		0.35	0.3	0.47	UB
Nitrogen, Kjeldahl, Total	KN	---		0.34	0.46	0.37	UB
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		2.98 D	0.69 J	0.62 D	1.32 D
Nitrogen, Nitrite	14797-65-0	1 ST		0.41	0.13	0.13	0.11
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		22.3	20.6	21.5	15.1
Total Dissolved Solids	E-10173	---		320	310	303	321
Total Organic Carbon	TOC	---		527 D	2.6	1.20	2.2

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

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Post Closure Groundwater Monitoring Program
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Leachate Indicators

Units in mg/l			Sample ID	4M-1	4M-1	4M-1	4M-1
			Sample_date	02/19/15	08/18/15	03/02/16	08/03/16
			Depth of Well BGS	325'	325'	325'	325'
			Depth to bottom screen, relative to MSL	-159'	-159'	-159'	-159'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		1680 D	1280 D	1280 D	1230 D
Biochemical Oxygen Demand (BOD)	BOD5	---		U	3	U	U
Bromide	24959-67-9	2 GV		U	***3.07***	***5.69 DJ***	***4.15***
Chloride (as Cl)	16887-00-6	250 ST		***531 D***	***604 D***	***543 D***	***442 D***
Cod - Chemical Oxygen Demand	COD	---		228 D	207 D	218 DJ	313
Color	COLOR	---		150 D	70	150 D	30
Hardness (as CaCO3)	HARD	---		460 D	440 D	348 D	400 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***169 D***	***170 D***	***189 D***	***194 D***
Nitrogen, Kjeldahl, Total	KN	---		181 D	179 D	162 D	167 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	UJ	U	U
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		***0.016***	***0.0222***	***0.0225***	***0.0167***
Sulfate (as SO4)	14808-79-8	250 ST		9.02 J	7.92	9.08	6.46
Total Dissolved Solids	E-10173	---		1580	1660	1510	1400
Total Organic Carbon	TOC	---		44.1	63.2	62.1	54

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

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Leachate Indicators

Units in mg/l		Sample ID	4M-2	4M-2	4M-2	4M-2
		Sample_date	02/19/15	08/18/15	03/01/16	08/03/16
		Depth of Well BGS	486'	486'	486'	486'
		Depth to bottom screen, relative to MSL	-320'	-320'	-320'	-320'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---	221 D	264 D	222 D	280 D
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	U
Bromide	24959-67-9	2 GV	1.96	***4***	***2.07 J***	1.73
Chloride (as Cl)	16887-00-6	250 ST	228 D	248 D	***279 D***	237 D
Cod - Chemical Oxygen Demand	COD	---	21.5	15.1	13.5 J	26.8
Color	COLOR	---	U	U	5.00	5
Hardness (as CaCO3)	HARD	---	320 D	260 D	252 D	268 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	***2.27***	***3.13***	***2.76***	***4.88 D***
Nitrogen, Kjeldahl, Total	KN	---	2.76	3.3	2.61	5.94 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	U	UJ	U	U
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST	54.9 DJ	61.3 D	62.8 D	48.4
Total Dissolved Solids	E-10173	---	618	674	652	696
Total Organic Carbon	TOC	---	77.4	9.4	6.00	8.9

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

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Leachate Indicators

Units in mg/l			Sample ID	6G-1	6G-1	6G-1	6G-1
			Sample_date	03/02/15	09/02/15	03/04/16	08/11/16
			Depth of Well BGS	147'	147'	147'	147'
			Depth to bottom screen, relative to MSL	32'	32'	32'	32'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	—		89.1 D	71.7	71.1	103 D
Biochemical Oxygen Demand (BOD)	BOD5	—		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		42.8 J	34.6	29.7	35.5
Cod - Chemical Oxygen Demand	COD	—		U	U	UJ	U
Color	COLOR	—		U	U	U	U
Hardness (as CaCO3)	HARD	—		76 D	44 D	56	68 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	U	0.16
Nitrogen, Kjeldahl, Total	KN	—		U	UJ	U	0.14
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		4.38 D	5.19 D	3.19 D	2.38 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		20.5	19.5	22.6	18.9
Total Dissolved Solids	E-10173	—		174	169	164	209
Total Organic Carbon	TOC	—		UJ	1.4	U	1.2 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

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Leachate Indicators

Units in mg/l			Sample ID	6G-2	6G-2	6G-2	6G-2
			Sample_date	03/02/15	09/02/15	03/04/16	08/11/16
			Depth of Well BGS	230'	230'	230'	230'
			Depth to bottom screen, relative to MSL	-53'	-53'	-53'	-53'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		140 D	154 D	145 D	158 D
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		60.0 DJ	77.6 D	69.6 D	58 D
Cod - Chemical Oxygen Demand	COD	---		U	U	UJ	U
Color	COLOR	---		U	6	U	U
Hardness (as CaCO3)	HARD	---		88 D	76 D	75	78 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	0.11	0.14
Nitrogen, Kjeldahl, Total	KN	---		U	UJ	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		0.87	1.24	1.15 D	1.53 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		20.6	22.8	26.6	25.9
Total Dissolved Solids	E-10173	---		268	273	293	282
Total Organic Carbon	TOC	---		UJ	3.2	1.30	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

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Leachate Indicators

Units in mg/l		Sample ID	6G-3	6G-3	6G-3	6G-3
		Sample_date	03/02/15	09/02/15	03/04/16	08/11/16
		Depth of Well BGS	315'	315'	315'	315'
		Depth to bottom screen, relative to MSL	-138'	-138'	-138'	-138'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---	221 D	227 D	224 D	222 D
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	U
Bromide	24959-67-9	2 GV	U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST	62.1 DJ	80.7 D	57.7 D	46.1 D
Cod - Chemical Oxygen Demand	COD	---	U	11.1	16.3 J	12.7
Color	COLOR	---	5.00	6	10.0	10
Hardness (as CaCO3)	HARD	---	280 D	1140 D	172 D	220 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	***7.88 D***	***8.3 D***	***9.24 D***	***9.33 D***
Nitrogen, Kjeldahl, Total	KN	---	UB	8.13 DJ	7.79 D	7.55 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	U	U	U	U
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST	24.6	24	24.4	20.5
Total Dissolved Solids	E-10173	---	354	347	316	325
Total Organic Carbon	TOC	---	4.2 J	5.9	4.30	5.5 J

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

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Leachate Indicators

Units in mg/l		Sample ID	6M-1	6M-1	6M-1	6M-1
		Sample_date	08/21/13	08/27/14	09/02/15	08/11/16
		Depth of Well BGS	545'	545'	545'	545'
		Depth to bottom screen, relative to MSL	-368'	-368'	-368'	-368'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---	68.9 D	73.8	76.1	72.7
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	U
Bromide	24959-67-9	2 GV	U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST	22.1	21.4	32.7	22.7
Cod - Chemical Oxygen Demand	COD	---	U	11.4	U	U
Color	COLOR	---	U	U	U	U
Hardness (as CaCO3)	HARD	---	60 D	112	64 D	64 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	1.16	1.42	1.46	1.44
Nitrogen, Kjeldahl, Total	KN	---	1.54	1.3	1.43 J	1.21
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	U	U	U	U
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST	5.15	5.09	6.27	5.86
Total Dissolved Solids	E-10173	---	123	116	109	124
Total Organic Carbon	TOC	---	1.3	1.2	1.7	1.4 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

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Monitoring Well Sample Results
Leachate Indicators

Units in mg/l		Sample ID	7M-1	7M-1	7M-1	7M-1
		Sample_date	02/23/15	08/21/15	03/02/16	08/10/16
		Depth of Well BGS	214'	214'	214'	214'
		Depth to bottom screen, relative to MSL	-152'	-152'	-152'	-152'
		Gradient relative to MSW	CROSS	CROSS	CROSS	CROSS
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---	51.6	42.6	31.6	42.2 D
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	U
Bromide	24959-67-9	2 GV	U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST	23.3	32.3	33.9	28.8
Cod - Chemical Oxygen Demand	COD	---	U	U	UJ	U
Color	COLOR	---	7.00	U	U	U
Hardness (as CaCO3)	HARD	---	150 D	72 D	60 D	80 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.30	0.28	0.36	0.37
Nitrogen, Kjeldahl, Total	KN	---	U	U	2.52	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	2.93 D	2.68 DJ	0.49	2.33 D
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST	32.3 J	28.3	30.9	25.3
Total Dissolved Solids	E-10173	---	159	137	127	137
Total Organic Carbon	TOC	---	14.3	1.5	U	1.2 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 D-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l		Sample ID	8G-1	8G-1	8G-1	8G-1
		Sample_date	02/23/15	08/13/15	02/23/16	08/02/16
		Depth of Well BGS	114'	114'	114'	114'
		Depth to bottom screen, relative to MSL	20'	20'	20'	20'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---	19.1	19.6	17.7	15.5
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	U
Bromide	24959-67-9	2 GV	U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST	245 D	207 D	214 D	207 D
Cod - Chemical Oxygen Demand	COD	---	U	U	U	U
Color	COLOR	---	10.0	U	U	5
Hardness (as CaCO3)	HARD	---	160 D	140 D	136 D	200 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.13	0.12	U	UB
Nitrogen, Kjeldahl, Total	KN	---	0.31	U	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	2.07 D	1.91 D	2.45 D	2.58 D
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	UB	U
Sulfate (as SO4)	14808-79-8	250 ST	21.4	13.3	21.6	11.5
Total Dissolved Solids	E-10173	---	476	516	428	612
Total Organic Carbon	TOC	---	5.6	1.2 J	U	UJ

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

Units in mg/l		Sample ID	8M-1	8M-1	8M-1	8M-1
		Sample_date	02/23/15	08/13/15	02/23/16	08/02/16
		Depth of Well BGS	270'	270'	270'	270'
		Depth to bottom screen, relative to MSL	-134'	-134'	-134'	-134'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---	299 D	328 D	303 D	330 D
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	U
Bromide	24959-67-9	2 GV	0.67	U	0.63	0.58
Chloride (as Cl)	16887-00-6	250 ST	106 D	115 D	107 D	101 D
Cod - Chemical Oxygen Demand	COD	---	16.7	U	14.4	18.2
Color	COLOR	---	25.0	5	10.0	15
Hardness (as CaCO3)	HARD	---	320 D	260 D	272 D	264 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	***7.25 D***	***9.02 D***	***10.4 D***	***11.2 D***
Nitrogen, Kjeldahl, Total	KN	---	6.43 D	7.56 D	8.63 DJ	7.99 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	4.86 D	4.11 D	4.70 D	4.73 D
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	U	***0.0075***
Sulfate (as SO4)	14808-79-8	250 ST	29.6 J	26.9	31.7	23.8
Total Dissolved Solids	E-10173	---	516	552	512	500
Total Organic Carbon	TOC	---	94.4	8.6 J	5.50	6.4 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 D-3
Blydenburgh Road Landfill Complex
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Monitoring Well Sample Results
Leachate Indicators

Units in mg/l		Sample ID	8M-2	8M-2	8M-2	8M-2
		Sample_date	02/23/15	08/13/15	02/23/16	08/02/16
		Depth of Well BGS	383'	383'	383'	383'
		Depth to bottom screen, relative to MSL	-248'	-248'	-248'	-248'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	--	42.4	43.6	45.4	43.2
Biochemical Oxygen Demand (BOD)	BOD5	--	U	U	U	U
Bromide	24959-67-9	2 GV	U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST	19.5	23.4	20.3	18.7
Cod - Chemical Oxygen Demand	COD	--	U	U	U	U
Color	COLOR	--	5.00	U	5.00	5
Hardness (as CaCO3)	HARD	--	72 D	56 D	54	50
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.38	0.45	0.46	UB
Nitrogen, Kjeldahl, Total	KN	--	0.14	0.41	UBJ	UB
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	0.93	0.74	0.95	0.88 D
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST	J	U	5.76	U
Total Dissolved Solids	E-10173	--	95	101	89	125 J
Total Organic Carbon	TOC	--	11.4	1.2 J	U	UJ

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

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

Units in mg/l			Sample ID	9G-1	9G-1	9G-1	9G-1
			Sample_date	08/09/13	08/25/14	08/27/15	08/09/16
			Depth of Well BGS	68'	68'	68'	68'
			Depth to bottom screen, relative to MSL	23'	23'	23'	23'
			Gradient relative to MSW	UP	UP	UP	UP
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		4.95	3.8	3.5 J	3.4
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		U	3.74	13.9	26.1
Cod - Chemical Oxygen Demand	COD	---		U	10.8	U	U
Color	COLOR	---		5	U	U	5
Hardness (as CaCO3)	HARD	---		12	20	20 D	16
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	U	U
Nitrogen, Kjeldahl, Total	KN	---		0.50 J	U	U	0.11
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		0.19	0.27	0.14 J	0.11
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		U	U	U	U
Total Dissolved Solids	E-10173	---		26	19	U	63
Total Organic Carbon	TOC	---		U	U	U	U

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

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

Units in mg/l			Sample ID	10G-1	10G-1	10G-1	10G-1
			Sample_date	08/07/13	08/21/14	08/14/15	08/10/16
			Depth of Well BGS	69'	69'	69'	69'
			Depth to bottom screen, relative to MSL	20'	20'	20'	20'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		6.80	53.7	9.15	11 D
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		56.2 D	56.1 D	148 D	136 D
Cod - Chemical Oxygen Demand	COD	---		U	U	U	U
Color	COLOR	---		U	U	U	5
Hardness (as CaCO3)	HARD	---		30 D	52 D	48 D	54 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	U	0.15
Nitrogen, Kjeldahl, Total	KN	---		0.32 J	U	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		1.96 D	1.87	2.11 D	2.53 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		13.7	12.2	13.1	14.8
Total Dissolved Solids	E-10173	---		145	165	288	273
Total Organic Carbon	TOC	---		U	1.1	1.8 J	1.1 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

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Blydenburgh Road Landfill Complex
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Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	10M-1	10M-1	10M-1	10M-1
			Sample_date	02/27/15	08/14/15	02/28/16	08/10/16
			Depth of Well BGS	256	256	256	256
			Depth to bottom screen, relative to MSL	-167	-167	-167	-167
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		360 D	328 D	331 D	313 D
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		65.4 DJ	75.3 D	75.9 D	56.2 D
Cod - Chemical Oxygen Demand	COD	---		U	U	U	U
Color	COLOR	---		U	U	5.00	5
Hardness (as CaCO3)	HARD	---		1000 D	320 D	420 D	400 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	0.31	0.32	0.46
Nitrogen, Kjeldahl, Total	KN	---		UB	0.16	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		2.62 D	2.9 D	3.31 D	3.26 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	U
Sulfate (as SO4)	14808-79-8	250 ST		20.9	22.2	28.3	25.8
Total Dissolved Solids	E-10173	---		480	519	428	505
Total Organic Carbon	TOC	---		10.6 J	4.2 J	2.30 J	2.5 J

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
--	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 D-3
Blydenburgh Road Landfill Complex
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Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	11G-1	11G-1	11G-1	11G-1
			Sample_date	02/20/15	08/19/15	03/07/16	08/09/16
			Depth of Well BGS	145'	145'	145'	145'
			Depth to bottom screen, relative to MSL	22'	22'	22'	22'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		694 D	720 D	724 D	731 D
Biochemical Oxygen Demand (BOD)	BOD5	---		4	3	U	U
Bromide	24959-67-9	2 GV		1.58	U	1.90 J	1.71 J
Chloride (as Cl)	16887-00-6	250 ST		194 D	***263 D***	244 D	U
Cod - Chemical Oxygen Demand	COD	---		112	112	123 J	135
Color	COLOR	---		100 D	110 D	150 D	80 D
Hardness (as CaCO3)	HARD	---		88 D	52 D	31	120 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***138 D***	***136 D***	***142 D***	***156 D***
Nitrogen, Kjeldahl, Total	KN	---		130 D	168 D	141 D	149 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	U	U	U
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	***0.0152***	***0.0446***	***0.0195***
Sulfate (as SO4)	14808-79-8	250 ST		U	U	U	U
Total Dissolved Solids	E-10173	---		692	764 J	770	864
Total Organic Carbon	TOC	---		230 D	42.3	28.8	33.2

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

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Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	11G-2	11G-2	11G-2	11G-2
			Sample_date	02/20/15	08/19/15	03/07/16	08/09/16
			Depth of Well BGS	220'	220'	220'	220'
			Depth to bottom screen, relative to MSL	-51	-51	-51	-51
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		1130 D	1120 D	1090 D	1000 D
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		***4.13***	U	***4.44 J***	***4.15*** J
Chloride (as Cl)	16887-00-6	250 ST		***414 D***	***448 D***	***475 D***	***470 D***
Cod - Chemical Oxygen Demand	COD	---		175 D	180 D	145 DJ	226
Color	COLOR	---		150 D	125 D	150 D	100
Hardness (as CaCO3)	HARD	---		230 D	200 D	188 D	156 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***167 D***	***166 D***	***169 D***	***188 D***
Nitrogen, Kjeldahl, Total	KN	---		188 D	471 D	152 D	165 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	UJ	U	U
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		***0.006***	U	U	***0.0243***
Sulfate (as SO4)	14808-79-8	250 ST		6.05 J	U	U	U
Total Dissolved Solids	E-10173	---		1160	1370	1200	1510
Total Organic Carbon	TOC	---		394 D	52.4	30.3	43.4

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

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Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l		Sample ID	11M-1	11M-1	11M-1	11M-1
		Sample_date	08/12/13	08/22/14	08/19/15	08/09/16
		Depth of Well BGS	320'	320'	320'	320'
		Depth to bottom screen, relative to MSL	-154'	-154'	-154'	-154'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---	141 D	144 D	135 D	160 D
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	U
Bromide	24959-67-9	2 GV	U	U	U	0.59 J
Chloride (as Cl)	16887-00-6	250 ST	79.1 D	77.6 D	99.7 D	85.4 D
Cod - Chemical Oxygen Demand	COD	---	U	14	U	U
Color	COLOR	---	U	U	U	5
Hardness (as CaCO3)	HARD	---	192 D	200 D	160 D	184 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	0.81	1	0.68	0.66
Nitrogen, Kjeldahl, Total	KN	---	1.43 J	1.16	0.5	2.74
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	0.2	0.18	0.19 J	0.11
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST	19.9	20.7	26.1	24.7
Total Dissolved Solids	E-10173	---	316	290	286	333
Total Organic Carbon	TOC	---	3.7	4.8	4.7	3.7

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

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Leachate Indicators

Units in mg/l			Sample ID	12M-1	12M-1	12M-1	12M-1
			Sample_date	03/03/15	09/03/15	03/04/16	08/11/16
			Depth of Well BGS	338'	338'	338'	338'
			Depth to bottom screen, relative to MSL	-163'	-163'	-163'	-163'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	--		341 D	322 D	320 D	387 D
Biochemical Oxygen Demand (BOD)	BOD5	--		U	U	U	U
Bromide	24959-67-9	2 GV		0.59 J	U	0.57 J	U
Chloride (as Cl)	16887-00-6	250 ST		72.1 DJ	96.4 D	82.0 D	77.4 D
Cod - Chemical Oxygen Demand	COD	--		U	10.7	UJ	14.8
Color	COLOR	--		90.0 D	25	20.0	U
Hardness (as CaCO3)	HARD	--		1000 D	320 D	316 D	350 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		UB	0.37	0.93	1.02
Nitrogen, Kjeldahl, Total	KN	--		UB	0.55 J	1.14	1
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		0.22	0.34	0.35	0.21
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	***0.0076***
Sulfate (as SO4)	14808-79-8	250 ST		39.6	37	42.1	32.6
Total Dissolved Solids	E-10173	--		443	486	508	474
Total Organic Carbon	TOC	--		12.2 J	6	4.20	6 J

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

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Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	13G-1	13G-1	13G-1	13G-1
			Sample_date	02/26/15	08/20/15	02/28/16	08/09/16
			Depth of Well BGS	93'	93'	93'	93'
			Depth to bottom screen, relative to MSL	17'	17'	17'	17'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		18.2	17.6	18.0	17.7
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		37.5 J	48.6	43.7	45.7
Cod - Chemical Oxygen Demand	COD	---		U	U	U	63.5
Color	COLOR	---		U	U	U	5
Hardness (as CaCO3)	HARD	---		110 D	56 D	60 D	64 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		UB	U	U	0.14
Nitrogen, Kjeldahl, Total	KN	---		U	U	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		1.86 D	2.26 DJ	1.88 D	1.9 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	***0.0094***	UB	U
Sulfate (as SO4)	14808-79-8	250 ST		33.8	28	30.7	30.7
Total Dissolved Solids	E-10173	---		132	134	109	167
Total Organic Carbon	TOC	---		UJ	2.4	UJ	U

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

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Units in mg/l			Sample ID	13M-1	13M-1	13M-1	13M-1
			Sample_date	02/26/15	08/20/15	02/28/16	08/09/16
			Depth of Well BGS	265'	265'	265'	265'
			Depth to bottom screen, relative to MSL	-155	-155	-155	-155
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		519 D	493 D	502 D	518 D
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		0.97 J	U	0.86	0.79 J
Chloride (as Cl)	16887-00-6	250 ST		91.6 DJ	130 D	112 D	110 D
Cod - Chemical Oxygen Demand	COD	---		U	12.9	11.6	14.8
Color	COLOR	---		U	U	5.00	10
Hardness (as CaCO3)	HARD	---		1100 D	500 D	520 D	570 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		UB	***2.01***	1.80	2
Nitrogen, Kjeldahl, Total	KN	---		UB	2.05	1.78 J	1.89
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	UJ	U	U
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	***0.0092***	UB	***0.005***
Sulfate (as SO4)	14808-79-8	250 ST		15.3	16.5	17.9	17.4
Total Dissolved Solids	E-10173	---		572	634	580	690
Total Organic Carbon	TOC	---		52.6 J	8.8	5.60 J	6.6

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

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Units in mg/l			Sample ID	14G-1A	14G-1A	14G-1A	14G-1A
			Sample_date	02/18/15	08/17/15	02/24/16	08/02/16
			Depth of Well BGS	220'	220'	220'	220'
			Depth to bottom screen, relative to MSL	-58	-58	-58	-58
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		162 D	198 D	193 D	204 D
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		42.5 D	69.2 D	61.5 D	62.3 D
Cod - Chemical Oxygen Demand	COD	---		U	U	U	U
Color	COLOR	---		U	U	U	5
Hardness (as CaCO3)	HARD	---		230 D	180 D	176 D	192 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	0.24	U	U
Nitrogen, Kjeldahl, Total	KN	---		U	U	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		5.64 D	7.23 D	6.45 D	6.04 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	U
Sulfate (as SO4)	14808-79-8	250 ST		26.3 J	25.1	34.0	24.7
Total Dissolved Solids	E-10173	---		291	394	351	392
Total Organic Carbon	TOC	---		52.4	2.5	1.70 J	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

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Units in mg/l		Sample ID	14G-2	14G-2	14G-2	14G-2
		Sample_date	02/18/15	08/17/15	02/24/16	08/02/16
		Depth of Well BGS	264'	264'	264'	264'
		Depth to bottom screen, relative to MSL	-103	-103	-103	-103
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---	193 D	199 D	330 D	188 D
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	U
Bromide	24959-67-9	2 GV	U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST	54.3 D	65.6 D	52.4 D	47.9 D
Cod - Chemical Oxygen Demand	COD	---	U	U	U	U
Color	COLOR	---	U	U	U	5
Hardness (as CaCO3)	HARD	---	330 D	200 D	188 D	208 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	U	0.22	U	UB
Nitrogen, Kjeldahl, Total	KN	---	U	U	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	7.09 D	7.88 D	6.71 D	6.47 D
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	UB	U
Sulfate (as SO4)	14808-79-8	250 ST	25.4 J	23.6	29.8	22.5
Total Dissolved Solids	E-10173	---	349	387	314	332
Total Organic Carbon	TOC	---	56.8	2.7	1.30 J	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

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Units in mg/l			Sample ID	14M-1	14M-1	14M-1	14M-1
			Sample_date	02/18/15	08/17/15	02/24/16	08/02/16
			Depth of Well BGS	355'	355'	355'	355'
			Depth to bottom screen, relative to MSL	-194'	-194'	-194'	-194'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		901 D	860 D	860 D	846 D
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		***3.87***	U	***3.87***	***3.12***
Chloride (as Cl)	16887-00-6	250 ST		33.8	***457 D***	***385 D***	***348 D***
Cod - Chemical Oxygen Demand	COD	---		93.6	85.8	84.7	134
Color	COLOR	---		60.0	45	40.0	50
Hardness (as CaCO3)	HARD	---		1900 D	500 D	500 D	700 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***58.4 D***	***61.3 D***	***61.9 D***	***65.8 D***
Nitrogen, Kjeldahl, Total	KN	---		69.0 D	59.9 D	57.1 DJ	45.7 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	U	U	U
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	***0.0068***
Sulfate (as SO4)	14808-79-8	250 ST		18.2 J	15.5	19.6	15.5
Total Dissolved Solids	E-10173	---		1220	1450	1210	1400
Total Organic Carbon	TOC	---		191 D	31.2	19.9 J	26.2 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
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Exceeds Class GA Standard/Guidance value	
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Units in mg/l			Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW	15G-1 08/19/13 160' 23' DOWN	15G-1 08/25/14 160' 23' DOWN	15G-1 08/19/15 160' 23' DOWN	15G-1 08/09/16 160' 23' DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		40.7 D	40.5	42.9	48.8
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		10.3	9.02	11.2	11.8
Cod - Chemical Oxygen Demand	COD	---		U	11.4	U	U
Color	COLOR	---		5	U	U	5
Hardness (as CaCO3)	HARD	---		72 DJ	100	68 D	76 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	U	U
Nitrogen, Kjeldahl, Total	KN	---		0.36	0.19	0.28	0.16
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		0.86	1.35	1.6 D	1.05
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		20.9	22.4	24.3	29.1
Total Dissolved Solids	E-10173	---		127	112	113 J	160
Total Organic Carbon	TOC	---		2.0	2.4	5.3	1.9

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
--	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	
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Units in mg/l			Sample ID	16G-1	16G-1	16G-1	16G-1
			Sample_date	08/07/13	08/21/14	08/14/15	08/10/16
			Depth of Well BGS	57'	57'	57'	57'
			Depth to bottom screen, relative to MSL	20'	20'	20'	20'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	—		12.1	13.1	11.2	14.4 D
Biochemical Oxygen Demand (BOD)	BOD5	—		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		4.6	4.06	6.91	9.57
Cod - Chemical Oxygen Demand	COD	—		U	12.1	U	U
Color	COLOR	—		U	U	U	U
Hardness (as CaCO3)	HARD	—		26 D	28 D	21	30 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	0.22	U
Nitrogen, Kjeldahl, Total	KN	—		0.42 J	U	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		1.77 D	1.58	1.73 D	1.96 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		6.49	6.7	5.79	5.8
Total Dissolved Solids	E-10173	—		48	59	54	60
Total Organic Carbon	TOC	—		U	U	UJ	UJ

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	
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Units in mg/l		Sample ID	16M-1	16M-1	16M-1	16M-1
		Sample_date	03/03/15	08/14/15	02/28/16	08/10/16
		Depth of Well BGS	240'	240'	240'	240'
		Depth to bottom screen, relative to MSL	-163	-163	-163	-163
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	--	238 D	232 D	224 D	225 D
Biochemical Oxygen Demand (BOD)	BOD5	--	U	U	U	U
Bromide	24959-67-9	2 GV	U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST	61.1 DJ	72.9 D	71.6 D	58.5 D
Cod - Chemical Oxygen Demand	COD	--	U	U	U	65.6
Color	COLOR	--	5.00	U	U	5
Hardness (as CaCO3)	HARD	--	500 D	240 D	230 D	280 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	UB	0.18	0.14	0.16
Nitrogen, Kjeldahl, Total	KN	--	U	U	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	3.85 D	3.82 D	5.36 D	4.22 D
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	UB	U
Sulfate (as SO4)	14808-79-8	250 ST	29.9	24.6	31.9	U
Total Dissolved Solids	E-10173	--	369	425	342	403
Total Organic Carbon	TOC	--	1.7 J	2.5	1.30 J	1.9 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	
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Units in mg/l		Sample ID	18G-1	18G-1	18G-1	18G-1
		Sample_date	02/20/15	08/20/15	02/23/16	08/03/16
		Depth of Well BGS	157'	157'	157'	157'
		Depth to bottom screen, relative to MSL	11'	11'	11'	11'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---	167 D	168 D	234 D	244 D
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	U
Bromide	24959-67-9	2 GV	U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST	126 D	233 D	86.9 D	87.8 D
Cod - Chemical Oxygen Demand	COD	---	18.1	U	20.1	39.6
Color	COLOR	---	U	U	10.0	15
Hardness (as CaCO3)	HARD	---	220 D	190 D	61	84 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	***32.5 D***	***22.8 D***	***23.2 D***	***34.8 D***
Nitrogen, Kjeldahl, Total	KN	---	35.3 D	19.9 D	24.1 DJ	29.2 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	4.80 D	6.72 DJ	U	0.44
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	UB	U
Sulfate (as SO4)	14808-79-8	250 ST	28.3 J	32.7	28.7	18.8
Total Dissolved Solids	E-10173	---	304	456	348	348
Total Organic Carbon	TOC	---	47.7	6.8	4.70	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

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Leachate Indicators

Units in mg/l			Sample ID	18G-2	18G-2	18G-2	18G-2
			Sample_date	02/20/15	08/20/15	02/23/16	08/03/16
			Depth of Well BGS	197'	197'	197'	197'
			Depth to bottom screen, relative to MSL	-29	-29	-29	-29
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		157 D	162 D	148 D	154 D
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		66.1 D	98.9 D	76.8 D	75.6 D
Cod - Chemical Oxygen Demand	COD	---		U	U	U	U
Color	COLOR	---		U	U	U	5
Hardness (as CaCO3)	HARD	---		104 D	52 D	82 D	84 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***7.22 D***	***8.35 D***	***6.17 D***	***8.29 D***
Nitrogen, Kjeldahl, Total	KN	---		7.36 D	7.28 D	3.95 DJ	8.12 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		3.04 D	4.24 DJ	7.59 D	7.59 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	***0.0068***	UB	U
Sulfate (as SO4)	14808-79-8	250 ST		21.6 J	29.2	31.0	21
Total Dissolved Solids	E-10173	---		300	300	343	275
Total Organic Carbon	TOC	---		43.3	3.5	1.60	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

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Leachate Indicators

Units in mg/l		Sample ID	22M-1	22M-1	22M-1	22M-1
		Sample_date	03/03/15	08/21/15	03/07/16	08/10/16
		Depth of Well BGS	222'	222'	222'	222'
		Depth to bottom screen, relative to MSL	-164'	-164'	-164'	-164'
		Gradient relative to MSW	UP	UP	UP	UP
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---	29.2	29.5	29.4	29.8 D
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	U
Bromide	24959-67-9	2 GV	U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST	30.1 J	38.1	33.2	26.3
Cod - Chemical Oxygen Demand	COD	---	U	U	UJ	U
Color	COLOR	---	U	U	U	U
Hardness (as CaCO3)	HARD	---	76 D	52 D	53	520 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	UB	0.97	0.85	0.85
Nitrogen, Kjeldahl, Total	KN	---	UB	UJ	2.59	0.57
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	2.32 D	2.52 DJ	0.37	1.92 D
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	***0.0053 J***	U	U
Sulfate (as SO4)	14808-79-8	250 ST	24.2	22.9	25.3	19.5
Total Dissolved Solids	E-10173	---	112	86 J	134	128
Total Organic Carbon	TOC	---	UJ	1.5	U	1.1 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

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Leachate Indicators

Units in mg/l		Sample ID	23M-1	23M-1	23M-1	23M-1
		Sample_date	02/25/15	08/21/15	03/02/16	08/09/16
		Depth of Well BGS	240'	240'	240'	240'
		Depth to bottom screen, relative to MSL	-164'	-164'	-164'	-164'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---	125 D	121	123 D	127 D
Biochemical Oxygen Demand (BOD)	BOD5	---	U	U	U	U
Bromide	24959-67-9	2 GV	U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST	42.4 D	57.2 D	51.6 D	44.7 D
Cod - Chemical Oxygen Demand	COD	---	U	U	UJ	U
Color	COLOR	---	U	U	U	5
Hardness (as CaCO3)	HARD	---	220 D	160 D	156 D	160 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	U	U	0.11	U
Nitrogen, Kjeldahl, Total	KN	---	0.18	U	0.20	0.15
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	2.17 D	2.37 DJ	2.17 D	2.69 D
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	***0.0056***	U	U
Sulfate (as SO4)	14808-79-8	250 ST	43.0 J	46.3	44.6 D	39.9 D
Total Dissolved Solids	E-10173	---	128	260	272	296
Total Organic Carbon	TOC	---	33.2	4.1	2.90	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 D-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	EW-1	EW-1	EW-1	EW-1
		Sample_date	8/15/14	8/31/15	2/29/16	8/12/16
		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
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	---	NR	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	4 J	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	UJ	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		---	4	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

Exceeds Class GA Standard/Guidance value

Appendix D-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	EW-2	EW-2	EW-2	EW-2	EW-2
			Sample_date	2/23/15(A)	3/17/15(A)	3/3/15(B)	4/13/15(A)	5/18/15(A)
			Depth of Well BGS	223'	223'	223'	223'	223'
			Depth to bottom screen, relative to MSL	-53	-53	-53	-53	-53
			Gradient relative to MSW	DOWN	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	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U	1 J
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U	4 J
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		U	U	U	U	U
2-Hexanone	591-78-6	50 GV		U	U	U	U	U
Acetone	67-64-1	50 GV		U	U	U	U	1 J
Acrylonitrile	107-13-1	5 ST		U	U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U	U
Bromomethane	74-83-9	5 ST		U	U	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U	6
Chlorobenzene	108-90-7	5 ST		U	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---		NR	NR	NR	NR	NR
Chloroethane	75-00-3	5 ST		U	U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		NR	NR	NR	NR	NR
Ethylbenzene	100-41-4	5 ST		U	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U	U
Total Volatile Organic Compounds		---		0	0	0	0	12

+	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

Exceeds Class GA Standard/Guidance value

D&B ENGINEERS AND ARCHITECTS, P.C.

Appendix D-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	EW-2	EW-2	EW-2	EW-2	EW-2
		Sample_date	6/15/15(A)	7/21/15(A)	8/19/15(A)	8/19/15(B)	9/15/15(A)
		Depth of Well BGS	223'	223'	223'	223'	223'
		Depth to bottom screen, relative to MSL	-53	-53	-53	-53	-53
		Gradient relative to MSW	DOWN	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	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U	U
Acetone	67-64-1	50 GV	U	U	6	5	4 J
Acrylonitrile	107-13-1	5 ST	U	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	NR	NR	NR	U	NR
Chloroethane	75-00-3	5 ST	U	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	***24***	***23***	***19***
Chloromethane	74-87-3	5 ST	U	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	NR	NR	NR	U	NR
Ethylbenzene	100-41-4	5 ST	U	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U	1 J
Styrene	100-42-5	5 ST	U	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U	U
Total Volatile Organic Compounds		---	0	0	30	28	24

+	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

Exceeds Class GA Standard/Guidance value

Appendix D-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	EW-2	EW-2	EW-2	EW-2	EW-2
			Sample_date	10/19/15(A)	11/18/15(A)	12/14/15(A)	1/19/16(A)	2/24/16(A)
			Depth of Well BGS	223'	223'	223'	223'	223'
			Depth to bottom screen, relative to MSL	-54	-54	-53	-54	-54
			Gradient relative to MSW	DOWN	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	U
1;1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		U	U	U	U	U
2-Hexanone	591-78-6	50 GV		U	U	U	U	U
Acetone	67-64-1	50 GV		2 J	3 BJ	U	3 BJ	1 BJ
Acrylonitrile	107-13-1	5 ST		U	U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U	U
Bromomethane	74-83-9	5 ST		U	U	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---		NR	NR	NR	NR	NR
Chloroethane	75-00-3	5 ST		U	U	U	U	U
Chloroform	67-66-3	7 ST		***13***	2 J	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		NR	NR	NR	NR	NR
Ethylbenzene	100-41-4	5 ST		U	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	1 J	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	1.2 J	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U	U
Total Volatile Organic Compounds		---		15	5	0	5.2	1

+	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

Exceeds Class GA Standard/Guidance value

Appendix D-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	EW-2	EW-2	EW-2	EW-2	EW-2
			Sample_date	2/24/16(B)	3/18/16(A)	5/11/16(A)	6/14/16(A)	7/15/16(A)
			Depth of Well BGS	223'	223'	223'	223'	223'
			Depth to bottom screen, relative to MSL	-53	-53	-54	-54	-53
			Gradient relative to MSW	DOWN	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	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		U	U	U	U	U
2-Hexanone	591-78-6	50 GV		U	U	U	U	U
Acetone	67-64-1	50 GV		UB	2 J	U	1 J	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U	U
Bromomethane	74-83-9	5 ST		U	U	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	—		U	NR	NR	NR	NR
Chloroethane	75-00-3	5 ST		U	U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		U	NR	NR	NR	NR
Ethylbenzene	100-41-4	5 ST		U	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	2 BJ	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	—		U	U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U	U
Vinyl Acetate	108-05-4	—		U	U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U	U
Total Volatile Organic Compounds		—		0	4	0	1	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

Exceeds Class GA Standard/Guidance value

Appendix D-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	EW-2	EW-2	EW-2	EW-2
			Sample_date	8/10/16(B)	10/19/16(A)	11/15/16(A)	12/13/16(A)
			Depth of Well BGS	223'	223'	223'	223'
			Depth to bottom screen, relative to MSL	-53	-54	-54	-53
			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	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	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

Exceeds Class GA Standard/Guidance value

Appendix D-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	EW-3	EW-3	EW-3	EW-3
		Sample_date	2/25/15	8/20/15	2/24/16	8/12/16
		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
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	UJ	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	UJ	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	1 J
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	1

+	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

Exceeds Class GA Standard/Guidance value

Appendix D-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	EW-4	EW-4	EW-4	EW-4
		Sample_date	2/25/15	8/20/15	2/24/16	8/12/16
		Depth of Well BGS	305'	305'	305'	305'
		Depth to bottom screen, relative to MSL	-138	-138	-138	-138
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	UJ	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	UJ	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	1 J	U	U	1 J
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	1 J	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	0	0	1

+	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

Exceeds Class GA Standard/Guidance value

Appendix D-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	EW-5	EW-5	EW-5	EW-5
		Sample_date	2/18/15	8/17/15	3/7/16	8/3/16
		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
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	2 J	3 J	5	3 J
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	UJ	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 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	UJ	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		---	2	3	6	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

Exceeds Class GA Standard/Guidance value

Appendix D-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	EW-6	EW-6	EW-6	EW-6	EW-6
			Sample_date	2/23/2015(A)	3/17/2015(A)	3/3/2015(B)	4/13/15(A)	5/18/15(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
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		U	U	U	U	U
2-Hexanone	591-78-6	50 GV		U	U	U	U	U
Acetone	67-64-1	50 GV		U	U	U	U	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U	U
Bromomethane	74-83-9	5 ST		U	U	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---		NR	NR	U	NR	NR
Chloroethane	75-00-3	5 ST		U	U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		NR	NR	U	NR	NR
Ethylbenzene	100-41-4	5 ST		U	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U	U
Total Volatile Organic Compounds		---		0	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

Exceeds Class GA Standard/Guidance value

Appendix D-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Volatile Organic Compounds

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

Exceeds Class GA Standard/Guidance value

Appendix D-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	EW-6	EW-6	EW-6	EW-6	EW-6
		Sample_date	10/19/15(A)	11/18/15(A)	12/14/15(A)	1/20/16(A)	3/07/16(B)
		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
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	3 J	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U	U
Acetone	67-64-1	50 GV	U	1 BJ	U	1 BJ	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	—	NR	NR	NR	NR	U
Chloroethane	75-00-3	5 ST	U	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U	U
Chloromethane	74-87-3	5 ST	U	1 J	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	NR	NR	NR	NR	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	—	U	U	U	1.7 J	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	3 J	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U	U
Vinyl Acetate	108-05-4	—	U	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U	U
Total Volatile Organic Compounds		—	0	2	0	8.7	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

Exceeds Class GA Standard/Guidance value

Appendix D-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	EW-6	EW-6	EW-6	EW-6
		Sample_date	3/18/16(A)	5/11/16(A)	6/15/16(A)	7/15/16(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
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	2 J	U	1 J	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	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	NR	NR
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	2 BJ	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		---	4	0	1	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

Exceeds Class GA Standard/Guidance value

Appendix D-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Volatile Organic Compounds

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

+	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

Exceeds Class GA Standard/Guidance value

Appendix D-5
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Inorganic Parameters

Units in ug/l		Sample ID	EW-1	EW-1	EW-1	EW-1
		Sample_date	8/15/14	8/31/15	2/29/16	8/12/16
		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
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	U	U
Antimony	7440-36-0	3 ST	U	UB	U	U
Arsenic	7440-38-2	25 ST	U	U	U	U
Barium	7440-39-3	1000 ST	35.1 B	36.5 B	35.7 J	33.9 J
Beryllium	7440-41-7	3 GV	U	U	U	0.7 J
Boron	7440-42-8	1000 ST	111	117	120	121
Cadmium	7440-43-9	5 ST	U	U	0.4 J	1.1 J
Calcium	7440-70-2	--	25200	28400 J	27500	28400
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	UB	U	U
Cobalt	7440-48-4	--	6.1 B	6.2 B	5.2 J	5.2 J
Copper	7440-50-8	200 ST	11.9 B	3.2 B	12.5 J	UB
Cyanide	57-12-5	200 ST	U	U	U	UJ
Iron	7439-89-6	300 ST#	UB	U	U	U
Lead	7439-92-1	25 ST	3.4	1.9 BJ	3 J	4.1 J
Magnesium	7439-95-4	35000 GV	10400	11400 J	11100	11900
Manganese	7439-96-5	300 ST#	***611***	***649 J***	***622***	***542***
Mercury	7439-97-6	0.7 ST	U	UJ	U	UJ
Nickel	7440-02-0	100 ST	4.9 B	UB	4.7 J	5.5 J
Potassium	7440-09-7	--	2860 B	2740 BJ	2610 J	2950 J
Selenium	7782-49-2	10 ST	U	UJ	UJ	U
Silver	7440-22-4	50 ST	U	UJ	U	UJ
Sodium	7440-23-5	20000 ST	***79300***	***84500 J***	***84700***	***76700***
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	61.5	64.4	90	20

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-5
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Inorganic Parameters

Units in ug/l		Sample ID	EW-2	EW-2	EW-2	EW-2
		Sample_date	3/3/15(B)	8/19/15(B)	2/24/16(B)	8/10/16 (B)
		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
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	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	21.0 BJ	10.7 B	U	U
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	134	140 BJ	120	130
Cadmium	7440-43-9	5 ST	U	0.3 B	0.50 J	U
Calcium	7440-70-2	--	21200	19900 J	17700	22000
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	UB	U	5.9 J
Cobalt	7440-48-4	--	12.5 B	5.7 B	UB	2.6 J
Copper	7440-50-8	200 ST	4.1 B	UB	8.4 J	9.7 J
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	***314***	***5710***	***6740***	***7070***
Lead	7439-92-1	25 ST	2.9 B	12.3	1.5 J	3.6 J
Magnesium	7439-95-4	35000 GV	9380	6760 J	6470	8610
Manganese	7439-96-5	300 ST#	105	***208 J***	***195***	***163***
Mercury	7439-97-6	0.7 ST	U	UJ	U	U
Nickel	7440-02-0	100 ST	10.3 B	5 B	5.1 J	5 J
Potassium	7440-09-7	--	6380	4830 B	3980 J	3990 J
Selenium	7782-49-2	10 ST	U	U	UJ	UJ
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	***75600***	***80700***	***90000***	***92700*** J
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	59.6	46.4	14.8 J	12.6 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-5
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Inorganic Parameters

Units in ug/l		Sample ID	EW-3	EW-3	EW-3	EW-3
		Sample_date	2/25/15	8/20/15	2/24/16	8/12/16
		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
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	22.6 J	U
Antimony	7440-36-0	3 ST	U	UB	U	U
Arsenic	7440-38-2	25 ST	U	U	U	U
Barium	7440-39-3	1000 ST	45.4 B	47.3 B	48.3 J	49.2 J
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	130	142	145	155
Cadmium	7440-43-9	5 ST	U	U	0.20 J	U
Calcium	7440-70-2	--	52200	52300 J	51200	53800
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	U	UB	U	U
Cobalt	7440-48-4	--	11.2 B	21.5 B	17.7 J	17.7 J
Copper	7440-50-8	200 ST	UB	9.6 B	8.0 J	UB
Cyanide	57-12-5	200 ST	U	U	U	UJ
Iron	7439-89-6	300 ST#	U	***50.6 B***	U	U
Lead	7439-92-1	25 ST	3.1	5.1 J	3.3 J	6.2
Magnesium	7439-95-4	35000 GV	31900	32500 J	32400	33800
Manganese	7439-96-5	300 ST#	***436***	***628 J***	***582***	***592***
Mercury	7439-97-6	0.7 ST	U	UJ	U	UJ
Nickel	7440-02-0	100 ST	10.0 B	10.2 B	9.9 J	11.2 J
Potassium	7440-09-7	--	5030	5400 J	4700 J	4140 J
Selenium	7782-49-2	10 ST	U	UJ	UJ	U
Silver	7440-22-4	50 ST	U	UJ	U	2.3 JL
Sodium	7440-23-5	20000 ST	***60400***	***61700 J***	***63800***	***63600***
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	UB	16.2 B	10.3 J	11.7 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-5
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	EW-4	EW-4	EW-4	EW-4
			Sample_date	2/25/15	8/20/15	2/24/16	8/12/16
			Depth of Well BGS	305'	305'	213'	305'
			Depth to bottom screen, relative to MSL	-138	-138	-141	-138
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		UB	UB	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		56.6 B	53.4 B	54.6 J	60.4 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		232	231	246	273
Cadmium	7440-43-9	5 ST		U	U	U	U
Calcium	7440-70-2	--		49100	49400 J	48200	51800
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		1.7 B	UB	U	2.4 J
Cobalt	7440-48-4	--		11.7 B	11.9 B	10.4 J	13 J
Copper	7440-50-8	200 ST		UB	6.7 B	3.2 J	UB
Cyanide	57-12-5	200 ST		U	U	U	UJ
Iron	7439-89-6	300 ST#		U	U	U	U
Lead	7439-92-1	25 ST		4.1	6.6 J	4.0 J	4.9 J
Magnesium	7439-95-4	35000 GV		27400	28700 J	28100	30900
Manganese	7439-96-5	300 ST#		***408***	***425 J***	***374***	***482***
Mercury	7439-97-6	0.7 ST		U	UJ	U	UJ
Nickel	7440-02-0	100 ST		17.5 B	16.7 B	16.4 J	20.2 J
Potassium	7440-09-7	--		10300	10100 J	9440 J	10200
Selenium	7782-49-2	10 ST		U	UJ	UJ	U
Silver	7440-22-4	50 ST		U	UJ	U	UJ
Sodium	7440-23-5	20000 ST		***63400***	***63000 J***	***64500***	***72600***
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		31.8	22.2	7.6 J	11.8 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-5
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	EW-5	EW-5	EW-5	EW-5
			Sample_date	2/18/15	8/17/15	3/7/16	8/3/16
			Depth of Well BGS	213'	215'	213'	213'
			Depth to bottom screen, relative to MSL	-141	-137'	-141	-141
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		UB	UB	U	24.9 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		30.7 B	30.7 B	34.1 J	30.2 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		43.4 B	47.6 BJ	39.2 J	38.7 J
Cadmium	7440-43-9	5 ST		U	U	U	U
Calcium	7440-70-2	--		26200	25800 J	21900	25000
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		1.3 B	UB	U	U
Cobalt	7440-48-4	--		U	U	U	U
Copper	7440-50-8	200 ST		35.3	UB	5.0 J	1.1 J
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		U	U	UJ	U
Lead	7439-92-1	25 ST		5.2	11.6	5.7	6.6
Magnesium	7439-95-4	35000 GV		12200	11700 J	10500	11900
Manganese	7439-96-5	300 ST#		38.4	42.9 J	45.9	44.5
Mercury	7439-97-6	0.7 ST		U	UJ	UB	U
Nickel	7440-02-0	100 ST		U	U	U	U
Potassium	7440-09-7	--		1800 B	1620 B	1580 J	771 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		11600	11600	10500 J	13400 J
Thallium	7440-28-0	0.5 GV		U	U	U	***1.9 J***
Vanadium	7440-62-2	--		U	U	U	U
Zinc	7440-66-6	2000 GV		48.3	102	77.4	22.1

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-5
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Inorganic Parameters

Units in ug/l		Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW	EW-6 3/3/15(B) 215' -137' DOWN	EW-6 8/19/15(B) 215' -137' DOWN	EW-6 3/07/16(B) 215' -137' DOWN	EW-6 8/9/16(B) 215' -137' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Aluminum	7429-90-5	--	UB	UB	24.9 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	8.5 BJ	8 B	U	U
Beryllium	7440-41-7	3 GV	U	U	U	U
Boron	7440-42-8	1000 ST	12.8 B	UJ	30.1 J	29.9 J
Cadmium	7440-43-9	5 ST	U	U	0.30 J	U
Calcium	7440-70-2	--	19600	19800 J	20000	22000
Chromium, Hexavalent	18540-29-9	50 ST	U	U	U	U
Chromium, Total	7440-47-3	50 ST	UB	UB	U	U
Cobalt	7440-48-4	--	U	U	U	U
Copper	7440-50-8	200 ST	2.3 B	UB	1.3 J	UB
Cyanide	57-12-5	200 ST	U	U	U	U
Iron	7439-89-6	300 ST#	31.5 B	116	UJ	U
Lead	7439-92-1	25 ST	2.8 B	12.7	4.5 J	3 J
Magnesium	7439-95-4	35000 GV	10700	9820 J	10600	11800
Manganese	7439-96-5	300 ST#	16.9	UJ	6.6 J	7 J
Mercury	7439-97-6	0.7 ST	U	UJ	UB	UB
Nickel	7440-02-0	100 ST	UB	U	U	U
Potassium	7440-09-7	--	UB	1100 B	1000 J	584 J
Selenium	7782-49-2	10 ST	U	U	U	UJ
Silver	7440-22-4	50 ST	U	U	U	U
Sodium	7440-23-5	20000 ST	8910	8570	9010 J	9690 J
Thallium	7440-28-0	0.5 GV	U	***3.2 B***	U	U
Vanadium	7440-62-2	--	U	U	U	U
Zinc	7440-66-6	2000 GV	UB	UB	8.1 J	U

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-6
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	EW-1	EW-1	EW-1	EW-1
			Sample_date	8/15/14	8/31/15	2/29/16	8/12/16
			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
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	—		154 D	166 D	157	156 D
Biochemical Oxygen Demand (BOD)	BOD	—		U	9 J	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		79.2 D	84.9 D	69.6 D	60.6 D
Cod - Chemical Oxygen Demand	COD	—		U	U	U	U
Color	COLOR	—		U	U	U	U
Hardness (as CaCO3)	HARD	—		150 D	130 D	102 D	170 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	0.17	0.12
Nitrogen, Kjeldahl, Total	KN	—		0.22	U	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		1.6 DJ	1.59 DJ	2.43 D	2.41 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		26.1	26.9	30.6	24
Total Dissolved Solids	E-10173	—		291	297	290	317
Total Organic Carbon	TOC	—		1.7	3.5	U	3.5 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-6
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	EW-2	EW-2	EW-2	EW-2
			Sample_date	3/3/15(B)	8/19/15(B)	2/24/16(B)	8/10/16 (B)
			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
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		133 D	134 D	153 D	165 D
Biochemical Oxygen Demand (BOD)	BOD	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	4.27 J
Chloride (as Cl)	16887-00-6	250 ST		67.2 DJ	82 D	63.7 D	64.5 D
Cod - Chemical Oxygen Demand	COD	---		U	U	10.2	U
Color	COLOR	---		15.0	110 D	100 D	5
Hardness (as CaCO3)	HARD	---		130 D	76 D	73	86 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		UB	0.4	0.36	0.33
Nitrogen, Kjeldahl, Total	KN	---		UB	0.32	0.34 J	0.34
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		2.49 D	1.29	0.54	0.87
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	U
Sulfate (as SO4)	14808-79-8	250 ST		25.4	20.8	16.7	18.7
Total Dissolved Solids	E-10173	---		281	337 J	264	342
Total Organic Carbon	TOC	---		1.1 J	3.5	1.30 J	2.7 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-6
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	EW-3	EW-3	EW-3	EW-3
			Sample_date	2/25/15	8/20/15	2/24/16	8/12/16
			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
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	--		59.9 D	257 D	275 D	264 D
Biochemical Oxygen Demand (BOD)	BOD	--		7	3	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		55.0 D	81.9 D	60.3 D	U
Cod - Chemical Oxygen Demand	COD	--		U	U	U	10.6
Color	COLOR	--		U	U	5.00	U
Hardness (as CaCO3)	HARD	--		310 D	340 D	204 D	240 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***2.99***	***2.95***	***3.31***	***3.41***
Nitrogen, Kjeldahl, Total	KN	--		3.51	2.88	2.47 J	2.63
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		3.08 D	2.91 DJ	2.83 D	2.81 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	U
Sulfate (as SO4)	14808-79-8	250 ST		32.0 J	28.2	31.4	21.8
Total Dissolved Solids	E-10173	--		391	397	384	375
Total Organic Carbon	TOC	--		64.5	4.9	3.00 J	4.3 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-6
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	EW-4	EW-4	EW-4	EW-4
			Sample_date	2/25/15	8/20/15	2/24/16	8/12/16
			Depth of Well BGS	305'	305'	213'	305'
			Depth to bottom screen, relative to MSL	-138	-138	-141	-138
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		56.4 D	261 D	251 D	268 D
Biochemical Oxygen Demand (BOD)	BOD	---		35	36	2	5
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		73.5 D	96.5 D	68.4 D	74.2 D
Cod - Chemical Oxygen Demand	COD	---		11.8	13.7	U	21.1
Color	COLOR	---		U	U	10.0	10
Hardness (as CaCO3)	HARD	---		280 D	130 D	196 D	230 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***13.0 D***	***12.8 D***	***10.3 D***	***13.9 D***
Nitrogen, Kjeldahl, Total	KN	---		13.3 D	11.9 D	10.2 DJ	11 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		5.20 D	5.63 DJ	5.01 D	4.7 D
Nitrogen, Nitrite	14797-65-0	1 ST		0.38	0.37	0.40	0.23
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	***0.0062***
Sulfate (as SO4)	14808-79-8	250 ST		37.1 J	31.3	36.2	26.1
Total Dissolved Solids	E-10173	---		416	425	392	439
Total Organic Carbon	TOC	---		53.4	7.1	4.50 J	6.5 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-6
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	EW-5	EW-5	EW-5	EW-5
			Sample_date	2/18/15	8/17/15	3/7/16	8/3/16
			Depth of Well BGS	213'	215'	213'	213'
			Depth to bottom screen, relative to MSL	-141	-137'	-141	-141
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		69.5	69.1	56.0	71.4 D
Biochemical Oxygen Demand (BOD)	BOD	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		22.6	25.8	24.6	20.4
Cod - Chemical Oxygen Demand	COD	---		U	U	UJ	U
Color	COLOR	---		U	U	U	10
Hardness (as CaCO3)	HARD	---		170 D	120 D	90 D	112 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		0.39	0.55	0.42	UB
Nitrogen, Kjeldahl, Total	KN	---		U	0.68	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		4.71 D	5.12 D	3.40 D	4.38 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		25.1 J	22	27.4	21.9
Total Dissolved Solids	E-10173	---		174	214	154	182
Total Organic Carbon	TOC	---		21.1	2.2	U	1.4

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

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

Units in mg/l			Sample ID	EW-6	EW-6	EW-6
			Sample_date	3/3/15(B)	8/19/15(B)	3/07/16(B)
			Depth of Well BGS	215'	215'	215'
			Depth to bottom screen, relative to MSL	-137'	-137'	-137'
			Gradient relative to MSW	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---		60.8	52.4	65.3
Biochemical Oxygen Demand (BOD)	BOD	---		U	U	U
Bromide	24959-67-9	2 GV		U	U	U
Chloride (as Cl)	16887-00-6	250 ST		16.1 J	14.8	14.0
Cod - Chemical Oxygen Demand	COD	---		U	U	UJ
Color	COLOR	---		5.00	U	U
Hardness (as CaCO3)	HARD	---		120 D	110 D	88 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	0.11
Nitrogen, Kjeldahl, Total	KN	---		U	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		2.54 D	2.77 D	3.71 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		19.2	15.3	20.0
Total Dissolved Solids	E-10173	---		108	135 J	132
Total Organic Carbon	TOC	---		UJ	1.4	U

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

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

Units in mg/l		Sample ID	EW-1	EW-1	EW-1	EW-1
		Sample_date	8/15/14	8/31/15	2/29/16	8/12/16
		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
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
Alkalinity, Total (as CaCO3)	ALK	---	154 D	166 D	157	156 D
Biochemical Oxygen Demand (BOD)	BOD	---	U	9 J	U	U
Bromide	24959-67-9	2 GV	U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST	79.2 D	84.9 D	69.6 D	60.6 D
Cod - Chemical Oxygen Demand	COD	---	U	U	U	U
Color	COLOR	---	U	U	U	U
Hardness (as CaCO3)	HARD	---	150 D	130 D	102 D	170 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST	U	U	0.17	0.12
Nitrogen, Kjeldahl, Total	KN	---	0.22	U	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST	1.6 DJ	1.59 DJ	2.43 D	2.41 D
Nitrogen, Nitrite	14797-65-0	1 ST	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST	U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST	26.1	26.9	30.6	24
Total Dissolved Solids	E-10173	---	291	297	290	317
Total Organic Carbon	TOC	---	1.7	3.5	U	3.5 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-6
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Extraction Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	EW-2	EW-2	EW-2	EW-2
			Sample_date	3/3/15(B)	8/19/15(B)	2/24/16(B)	8/10/16 (B)
			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
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		133 D	134 D	153 D	165 D
Biochemical Oxygen Demand (BOD)	BOD	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	4.27 J
Chloride (as Cl)	16887-00-6	250 ST		67.2 DJ	82 D	63.7 D	64.5 D
Cod - Chemical Oxygen Demand	COD	---		U	U	10.2	U
Color	COLOR	---		15.0	110 D	100 D	5
Hardness (as CaCO3)	HARD	---		130 D	76 D	73	86 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		UB	0.4	0.36	0.33
Nitrogen, Kjeldahl, Total	KN	---		UB	0.32	0.34 J	0.34
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		2.49 D	1.29	0.54	0.87
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	U
Sulfate (as SO4)	14808-79-8	250 ST		25.4	20.8	16.7	18.7
Total Dissolved Solids	E-10173	---		281	337 J	264	342
Total Organic Carbon	TOC	---		1.1 J	3.5	1.30 J	2.7 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

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

Units in mg/l			Sample ID	EW-3	EW-3	EW-3	EW-3
			Sample_date	2/25/15	8/20/15	2/24/16	8/12/16
			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
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		59.9 D	257 D	275 D	264 D
Biochemical Oxygen Demand (BOD)	BOD	---		7	3	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		55.0 D	81.9 D	60.3 D	U
Cod - Chemical Oxygen Demand	COD	---		U	U	U	10.6
Color	COLOR	---		U	U	5.00	U
Hardness (as CaCO3)	HARD	---		310 D	340 D	204 D	240 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***2.99***	***2.95***	***3.31***	***3.41***
Nitrogen, Kjeldahl, Total	KN	---		3.51	2.88	2.47 J	2.63
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		3.08 D	2.91 DJ	2.83 D	2.81 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	U
Sulfate (as SO4)	14808-79-8	250 ST		32.0 J	28.2	31.4	21.8
Total Dissolved Solids	E-10173	---		391	397	384	375
Total Organic Carbon	TOC	---		64.5	4.9	3.00 J	4.3 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

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

Units in mg/l			Sample ID	EW-4	EW-4	EW-4	EW-4
			Sample_date	2/25/15	8/20/15	2/24/16	8/12/16
			Depth of Well BGS	305'	305'	213'	305'
			Depth to bottom screen, relative to MSL	-138	-138	-141	-138
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	--		56.4 D	261 D	251 D	268 D
Biochemical Oxygen Demand (BOD)	BOD	--		35	36	2	5
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		73.5 D	96.5 D	68.4 D	74.2 D
Cod - Chemical Oxygen Demand	COD	--		11.8	13.7	U	21.1
Color	COLOR	--		U	U	10.0	10
Hardness (as CaCO3)	HARD	--		280 D	130 D	196 D	230 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***13.0 D***	***12.8 D***	***10.3 D***	***13.9 D***
Nitrogen, Kjeldahl, Total	KN	--		13.3 D	11.9 D	10.2 DJ	11 D
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		5.20 D	5.63 DJ	5.01 D	4.7 D
Nitrogen, Nitrite	14797-65-0	1 ST		0.38	0.37	0.40	0.23
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	***0.0062***
Sulfate (as SO4)	14808-79-8	250 ST		37.1 J	31.3	36.2	26.1
Total Dissolved Solids	E-10173	--		416	425	392	439
Total Organic Carbon	TOC	--		53.4	7.1	4.50 J	6.5 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

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

Units in mg/l			Sample ID	EW-5	EW-5	EW-5	EW-5
			Sample_date	2/18/15	8/17/15	3/7/16	8/3/16
			Depth of Well BGS	213'	215'	213'	213'
			Depth to bottom screen, relative to MSL	-141	-137'	-141	-141
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		69.5	69.1	56.0	71.4 D
Biochemical Oxygen Demand (BOD)	BOD	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		22.6	25.8	24.6	20.4
Cod - Chemical Oxygen Demand	COD	---		U	U	UJ	U
Color	COLOR	---		U	U	U	10
Hardness (as CaCO3)	HARD	---		170 D	120 D	90 D	112 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		0.39	0.55	0.42	UB
Nitrogen, Kjeldahl, Total	KN	---		U	0.68	U	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		4.71 D	5.12 D	3.40 D	4.38 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		25.1 J	22	27.4	21.9
Total Dissolved Solids	E-10173	---		174	214	154	182
Total Organic Carbon	TOC	---		21.1	2.2	U	1.4

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

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

Units in mg/l			Sample ID	EW-6	EW-6	EW-6	EW-6
			Sample_date	3/3/15(B)	8/19/15(B)	3/07/16(B)	8/9/16(B)
			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
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		60.8	52.4	65.3	73.6
Biochemical Oxygen Demand (BOD)	BOD	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		16.1 J	14.8	14.0	11.2
Cod - Chemical Oxygen Demand	COD	---		U	U	UJ	U
Color	COLOR	---		5.00	U	U	5
Hardness (as CaCO3)	HARD	---		120 D	110 D	88 D	92 D
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	0.11	0.12
Nitrogen, Kjeldahl, Total	KN	---		U	U	U	2.17
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		2.54 D	2.77 D	3.71 D	3.97 D
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		19.2	15.3	20.0	17.3
Total Dissolved Solids	E-10173	---		108	135 J	132	141
Total Organic Carbon	TOC	---		UJ	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 E

LANDFILL GAS MONITORING REPORTS

PART III

BLYDENBURGH ROAD M.S.W. LANDFILL

AND FORMER

ASH MONOFILL GAS MONITORING

REPORTS FROM

JANUARY 2016 THROUGH JUNE 2016

PREPARED BY F.P.M. GROUP

FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

909 Marconi Avenue
Ronkonkoma, NY 11779
631/737-6200
Fax 631/737-2410

February 8, 2016

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

Re: **Blydenburgh Road Landfill**
January 2016 Landfill Gas and VOC Gas Monitoring Results
FPM File No. 631-16-29

Dear Mr. Varrichio:

On January 8, 14, 21, and 29, 2016, FPM Group (FPM) performed landfill gas and volatile organic compound (VOC) gas monitoring at the above-referenced site. Monitoring of landfill gas was performed with a Landtec GEM 2000 Gas Analyzer. Monitoring for VOCs in ambient air was performed with a Photovac photoionization detector (PID), model 2020 Pro Plus. Ambient air VOC monitoring was conducted to address the provision for this measure in the Record of Decision (ROD) for this facility and was performed at four locations near the landfill perimeter, including one location downwind from the flare system.

For the Landtec GEM 2000 Gas Analyzer, oxygen (O_2) gas and methane (CH_4) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH_4 and 15% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. The Photovac PID was zeroed with ambient air prior to arrival at the landfill property, and calibrated with 100 parts per million (ppm) isobutylene prior to sampling in accordance with the manufacturer's recommendations.

The landfill gas monitoring results are provided in Tables 1 through 11 and the ambient air VOC monitoring results are provided in Table 12. CH_4 was not detected in any of the landfill monitoring wells this month and VOCs were not detected in the ambient air. This issue is being addressed.

The next landfill gas monitoring event will begin on February 12, 2016. Jim Jahnke will be notified several days in advance of the sampling event. **Prior to the next monitoring event, please replace the sample port on monitoring well MSW-11.**

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 242.

Sincerely,

George Holmes
Hydrogeologist

GH:tac
Attachments

cc: Jim Jahnke (via email)
Fazil Rahaman (via email)

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BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
A-01	OK	1/8/2016 11:59	0.00	0.40	18.40	30.0	-0.37
A-02	OK	1/8/2016 12:02	0.00	0.10	18.60	30.0	-0.58
A-03	OK	1/8/2016 12:04	0.00	0.10	18.70	30.0	-0.60
A-04	OK	1/8/2016 12:07	0.00	0.50	18.60	30.0	-0.39
A-05	OK	1/8/2016 12:09	0.00	0.10	19.00	30.0	-0.24
A-06	OK	1/8/2016 12:11	0.00	0.10	19.20	30.0	-1.43
A-07	OK	1/8/2016 12:12	0.00	0.10	19.30	30.0	-3.79
A-08	OK	1/8/2016 12:15	0.00	0.10	19.50	30.0	-0.86
A-09	OK	1/8/2016 12:18	0.00	0.10	19.50	30.0	-0.89
A-10	OK	1/8/2016 12:19	0.00	0.10	19.60	30.0	-0.68
A-11	OK	1/8/2016 12:28	0.00	0.10	19.70	30.0	-4.32
A-12	OK	1/8/2016 12:31	0.00	0.10	19.70	30.0	-0.46
A-13	OK	1/8/2016 12:36	0.00	0.10	19.60	30.0	-0.45
A-14	OK	1/8/2016 12:38	0.00	1.60	18.30	30.0	-0.35
A-15	OK	1/8/2016 12:43	0.00	2.20	17.60	30.0	-0.25
A-16	OK	1/8/2016 12:48	0.00	0.10	19.40	30.0	-0.67
A-17	OK	1/8/2016 12:50	0.00	0.10	19.40	30.0	-0.49
A-18	OK	1/8/2016 12:52	0.00	0.10	19.50	30.0	-1.70
BLOWER A	N/A	1/8/2016 13:36	0.30	2.80	16.70	30.0	26.73
BLOWER B	N/A	1/8/2016 13:38	0.00	0.10	19.00	30.0	-0.01

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 47°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-07/20	OK	1/8/2016 14:07	0.00	0.10	19.20	30.0	-0.10
MW-07/40	OK	1/8/2016 14:09	0.00	0.10	19.30	29.9	-0.09
MW-07/60	OK	1/8/2016 14:11	0.00	0.10	19.40	29.9	-0.15
MW-08/20	OK	1/8/2016 14:13	0.00	0.10	19.40	29.9	-0.08
MW-08/40	OK	1/8/2016 14:14	0.00	0.10	19.50	30.0	-0.12
MW-08/60	OK	1/8/2016 14:16	0.00	0.10	19.60	30.0	-0.13
MW-11/20	OK	1/8/2016 14:01	0.00	0.10	18.90	30.0	-0.07
MW-11/40	OK	1/8/2016 14:03	0.00	0.10	19.00	30.0	-0.11
MW-11/60	OK	1/8/2016 14:04	0.00	0.10	19.00	30.0	-0.13
MW-13/20	OK	1/8/2016 14:19	0.00	0.10	19.60	30.0	-0.02

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 47°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
B-04	OK	1/21/2016 11:08	0.00	0.10	19.40	29.9	-0.75
B-05	OK	1/21/2016 11:11	0.00	0.10	19.40	29.9	-0.98
B-06	OK	1/21/2016 11:18	0.00	0.10	19.40	29.9	-0.51
B-07	OK	1/21/2016 11:21	0.00	0.10	19.40	29.9	-3.09
B-08	OK	1/21/2016 11:24	0.00	0.10	19.50	29.9	-1.03
B-09	OK	1/21/2016 11:31	0.00	0.10	19.70	29.9	-4.42
B-10	OK	1/21/2016 11:34	0.00	0.10	19.80	29.9	-0.84
B-11	OK	1/21/2016 11:35	0.00	0.10	19.80	29.9	-1.06
B-12	OK	1/21/2016 12:16	0.00	0.10	19.30	29.9	-7.09
B-13	OK	1/21/2016 11:57	0.00	0.10	19.70	30.0	-31.50
B-14	OK	1/21/2016 11:49	0.00	0.10	19.90	30.0	-3.37
B-15	OK	1/21/2016 11:41	0.00	0.10	20.00	30.0	-9.37
BLOWER B	N/A	1/21/2016 11:29	0.00	0.20	19.60	29.9	0.00
BLOWER C	N/A	1/21/2016 12:14	0.60	3.40	16.60	30.0	3.22

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Overcast, 37°F

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-01/20	OK	1/21/2016 11:03	0.00	0.10	19.50	29.9	-0.30
MW-01/40	OK	1/21/2016 11:05	0.00	0.10	19.40	29.9	-0.27
MW-01/60	OK	1/21/2016 11:07	0.00	0.10	19.40	29.9	-0.28
MW-02/20	OK	1/21/2016 11:12	0.00	0.10	19.40	29.9	-0.25
MW-02/40	OK	1/21/2016 11:14	0.00	0.10	19.40	29.9	-0.36
MW-02/60	OK	1/21/2016 11:16	0.00	0.10	19.50	29.9	-0.40
MW-25/20	OK	1/21/2016 12:02	0.00	0.10	19.50	30.0	-0.18
MW-25/40	OK	1/21/2016 12:03	0.00	0.10	19.60	30.0	-0.12
MW-25/60	OK	1/21/2016 12:05	0.00	0.10	19.50	30.0	-0.49
MW-26/20	OK	1/21/2016 11:51	0.00	0.10	19.80	30.0	-0.15
MW-26/40	OK	1/21/2016 11:53	0.00	0.10	19.80	30.0	-0.30
MW-26/60	OK	1/21/2016 11:54	0.00	0.10	19.80	30.0	-0.04
MW-27/20	OK	1/21/2016 11:43	0.00	0.10	19.90	30.0	-0.06
MW-27/40	OK	1/21/2016 11:44	0.00	0.10	19.90	30.0	-0.20
MW-27/60	OK	1/21/2016 11:46	0.00	0.10	19.90	30.0	-0.18

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Overcast, 37°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
C-01	OK	1/21/2016 13:41	0.00	0.10	19.80	29.9	-1.28
C-02	OK	1/21/2016 13:39	0.00	1.80	18.10	29.9	-0.79
C-03	OK	1/21/2016 13:34	0.00	0.10	19.90	29.9	-1.48
C-04	OK	1/21/2016 13:31	0.00	0.10	20.00	29.9	-1.47
C-05	OK	1/21/2016 13:27	0.00	0.10	20.00	29.9	-1.29
C-06	OK	1/21/2016 13:24	0.00	0.10	20.10	29.9	-1.41
C-07	OK	1/21/2016 13:21	0.00	0.10	20.10	29.9	-1.57
C-08	OK	1/21/2016 13:18	0.00	0.10	19.90	29.9	-1.87
C-09	OK	1/21/2016 13:16	0.00	1.00	19.10	29.9	-1.62
C-10	OK	1/21/2016 13:13	0.00	0.10	19.80	29.9	-2.40
C-11	OK	1/21/2016 13:11	0.00	0.20	19.60	29.9	-2.70
C-12	OK	1/21/2016 13:07	0.00	0.10	19.60	29.9	-0.64
C-13	OK	1/21/2016 13:05	0.00	0.10	19.60	30.0	-1.02
C-14	OK	1/21/2016 13:00	0.00	0.10	19.40	30.0	-0.80
C-15	OK	1/21/2016 12:55	0.00	0.10	19.10	30.0	-1.59
C-16	OK	1/21/2016 12:53	0.00	0.10	19.00	30.0	-1.09
C-17	OK	1/21/2016 13:47	0.00	5.30	15.90	29.9	-1.78
BLOWER C	N/A	1/21/2016 12:14	0.60	3.40	16.60	30.0	3.22

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Overcast, 37°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-19/20	OK	1/21/2016 14:27	0.00	0.30	19.30	29.9	-0.26
MW-19/40	OK	1/21/2016 14:28	0.00	0.30	19.30	29.9	-0.09
MW-19/60	OK	1/21/2016 14:30	0.00	0.30	19.40	29.9	-0.03
MW-23/20	OK	1/21/2016 14:20	0.00	0.20	19.20	29.9	-0.05
MW-23/40	OK	1/21/2016 14:22	0.00	0.20	19.20	29.9	0.04
MW-23/60	OK	1/21/2016 14:23	0.00	0.20	19.30	29.9	0.08

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Overcast, 37°F

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-50	OK	1/21/2016 11:22	0.00	0.10	19.40	29.9	-0.21
MW-51	OK	1/8/2016 13:59	0.00	0.20	18.70	30.0	-0.20
MW-52	OK	1/8/2016 12:21	0.00	0.30	19.50	30.0	-0.05
MW-53	OK	1/8/2016 13:17	0.00	0.10	18.90	30.0	-0.08
MW-54	OK	1/8/2016 13:19	0.00	0.40	18.80	30.0	-0.08
MW-56	OK	1/21/2016 12:48	0.00	0.10	18.80	30.0	-0.02
MW-57	OK	1/21/2016 12:52	0.00	0.10	18.90	30.0	-0.02
MW-58	OK	1/21/2016 14:38	0.00	0.20	20.00	29.9	0.00
MW-59	OK	1/21/2016 12:59	0.00	0.10	19.20	30.0	0.00
MW-60	OK	1/21/2016 13:02	0.00	0.10	19.50	30.0	-0.05
MW-61	OK	1/21/2016 13:08	0.00	0.10	19.70	29.9	-0.17
MW-62	OK	1/21/2016 14:34	0.00	0.10	19.80	29.9	-0.17
MW-63	OK	1/21/2016 14:32	0.00	0.10	19.70	29.9	-0.29
MW-64	OK	1/21/2016 13:29	0.00	0.10	20.00	29.9	-0.24
MW-65	OK	1/21/2016 13:36	0.00	0.10	19.90	29.9	-0.09

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather: 1/8/2016 - Partly Cloudy, 47°F 1/21/2016 - Overcast, 37°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - Closed MSW Landfill

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure	Well Head Vacuum
MSW-01	*	NS	NS	NS	NS	NS	NS	NS
MSW-03	OK	1/14/2016 10:57	20.90	31.20	1.70	29.7	-0.26	-2.79
MSW-04	OK	1/14/2016 11:06	19.60	32.50	2.10	29.6	-2.41	-3.08
MSW-05	OK	1/14/2016 11:13	44.10	55.30	0.50	29.6	-1.50	-2.27
MSW-06	OK	1/14/2016 11:21	27.20	40.20	0.40	29.6	-1.45	-1.90
MSW-07	OK	1/14/2016 11:28	10.30	14.10	2.30	29.6	-0.94	-1.58
MSW-09	OK	1/14/2016 11:34	24.50	38.30	0.80	29.6	-0.92	-1.45
MSW-10	OK	1/14/2016 11:45	45.60	58.00	0.40	29.6	-0.75	-
MSW-11	*	NS	NS	NS	NS	NS	NS	NS
MSW-12	OK	1/14/2016 11:41	34.40	47.00	0.40	29.6	-1.19	-1.74
MSW-13	OK	1/14/2016 11:57	48.10	60.90	0.70	29.6	-0.16	-
MSW-14	OK	1/14/2016 12:00	43.40	61.90	0.60	29.6	3.19	-
MSW-15	OK	1/14/2016 12:03	45.20	60.60	0.70	29.6	-0.97	-1.96
MSW-16	OK	1/14/2016 12:06	28.40	42.30	0.50	29.6	-1.70	-1.88
MSW-17	OK	1/14/2016 11:02	34.00	47.60	0.50	29.6	-0.40	-
MSW-18	OK	1/14/2016 12:21	41.40	51.00	0.50	29.6	-1.14	-
MSW-19	OK	1/14/2016 12:14	42.90	59.70	0.80	29.6	-0.76	-0.80

Notes:

- = No well head vacuum sample port present.
CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
NS - Not Sampled
Weather - Overcast, 46°F

***MSW-01 - Well under repair**
***MSW-11 - Well sample port broken**

ISLIP, NEW YORK

CLOSED MSW LANDFILL

Location ID	Date	Time	CH_4	CO_2	O_2	Temp.	Well Head Pressure	Atmospheric Pressure	Valve Position
N. Valve Structure									
V-200	1/21/2016	10:07	32.20	39.90	1.20	48	-3.56	29.9	1/2 open
V-203		10:10	3.90	11.10	9.50	46	-2.83	29.9	1/4 open
Dog House									
Phase IV Vertical	1/21/2016	10:15	27.20	37.10	1.20	44	-5.30	29.9	open
Phase II Horizontal		10:17	0.50	11.90	10.60	46	-1.05	29.9	closed
Small Dog House	1/21/2016								
Phase II Horizontal		10:19	6.00	13.30	10.00	46	-4.99	29.9	1/2 open
Phase II Valve Pit									
E-Horizontal	1/21/2016	10:24	37.40	49.70	0.40	38	-6.80	29.9	1/2 open
W-Horizontal		10:26	33.40	47.90	0.40	40	-6.86	29.9	1/2 open
CF Phase II-Vertical**									NS
Flare Compound									
*MP-01 Gas Analyzer	1/21/2016	10:30	0.10	0.20	19.60	44	-10.27	29.9	N/A
CF Phase I**		NS	NS	NS	NS	NS	NS	NS	NS

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Temperature measured in degrees Farenheit.
Blower status - On
Weather -Overcast, 37°F
* = Analyzer combined
** = Offline
N/A = Not Applicable
NS = Not Sampled

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Location ID	Date	Location Description	VOCs
AMBIENT 1	1/29/2016	Northern portion of landfill property, just south of MW-26/40	0.0
AMBIENT 2	1/29/2016	Southern portion of landfill property, just north of MW-D4/40	0.0
AMBIENT 3	1/29/2016	Western portion of landfill property, just east of B-04	0.0
AMBIENT 4	1/29/2016	Eastern portion of landfill property, just west of C-04	0.0

Notes:

VOCs reported as parts per million, as measured by a calibrated photoionization detector.
Weather - Partly Cloudy, 43°F

FPM Group, Ltd.
FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

March 10, 2016

CORPORATE HEADQUARTERS
909 Marconi Avenue
Ronkonkoma, NY 11779
631/737-6200
Fax 631/737-2410

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

Re: **Blydenburgh Road Landfill**
February 2016 Landfill Gas and VOC Gas Monitoring Results
FPM File No. 631-16-29

Dear Mr. Varrichio:

On February 12, 17, and 22, 2016, FPM Group (FPM) performed landfill gas and volatile organic compound (VOC) gas monitoring at the above-referenced site. Monitoring of landfill gas was performed with a Landtec GEM 2000 Gas Analyzer. Monitoring for VOCs in ambient air was performed with a Photovac photoionization detector (PID), model 2020 Pro Plus. Ambient air VOC monitoring was conducted to address the provision for this measure in the Record of Decision (ROD) for this facility and was performed at four locations near the landfill perimeter, including one location downwind from the flare system.

For the Landtec GEM 2000 Gas Analyzer, oxygen (O_2) gas and methane (CH_4) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH_4 and 15% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. The Photovac PID was zeroed with ambient air prior to arrival at the landfill property, and calibrated with 100 parts per million (ppm) isobutylene prior to sampling in accordance with the manufacturer's recommendations.

The landfill gas monitoring results are provided in Tables 1 through 11 and the ambient air VOC monitoring results are provided in Table 12. CH_4 was not detected in any of the landfill monitoring wells this month and VOCs were not detected in the ambient air. An elevated level of O_2 was detected in wells MSW-09, MSW-14, MSW-15, and MSW-19. This issue is being addressed.

The next landfill gas monitoring event began on March 8, 2016.

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 242.

Sincerely,

George Holmes
Hydrogeologist

GH:tac
Attachments

cc: Jim Jahnke (via email)
Fazil Rahaman (via email)

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LANDFILL GAS MONITORING RESULTS

BLYDENBURGH ROAD LANDFILL

ISLIP, NEW YORK

Extraction Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
A-01	OK	2/12/2016 10:47	0.00	2.80	16.20	30.0	0.06
A-02	OK	2/12/2016 10:49	0.00	2.80	16.20	30.0	0.06
A-03	OK	2/12/2016 10:51	0.00	2.80	16.30	30.0	0.08
A-04	OK	2/12/2016 10:54	0.10	3.30	15.90	30.0	0.06
A-05	OK	2/12/2016 10:55	0.00	0.50	18.20	30.0	0.06
A-06	OK	2/12/2016 11:02	1.70	17.10	4.30	30.0	0.09
A-07	OK	2/12/2016 11:04	0.00	0.10	18.90	30.0	-3.89
A-08	OK	2/12/2016 11:06	0.00	0.10	19.20	30.0	-0.93
A-09	OK	2/12/2016 11:08	0.00	0.10	19.30	30.0	-0.87
A-10	OK	2/12/2016 11:10	0.00	0.10	19.50	30.0	-0.65
A-11	OK	2/12/2016 11:15	0.00	0.10	19.90	29.9	-3.12
A-12	OK	2/12/2016 11:17	0.00	0.10	20.10	29.9	-0.37
A-13	OK	2/12/2016 11:19	0.00	0.10	20.20	29.9	0.01
A-14	OK	2/12/2016 11:21	0.00	1.40	19.20	29.9	-0.26
A-15	OK	2/12/2016 11:24	0.00	0.90	19.50	29.9	-0.18
A-16	OK	2/12/2016 11:37	0.00	0.10	19.90	29.9	-0.63
A-17	OK	2/12/2016 11:39	0.00	0.10	19.80	30.0	-0.55
A-18	OK	2/12/2016 11:41	0.00	0.10	19.70	30.0	-1.80
BLOWER A	N/A	2/12/2016 12:02	0.20	2.40	17.10	30.0	27.74
BLOWER B	N/A	2/12/2016 12:04	0.00	0.10	19.00	30.0	0.00

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Overcast, 25°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-07/20	OK	2/12/2016 13:27	0.00	0.10	19.50	29.9	-0.04
MW-07/40	OK	2/12/2016 13:28	0.00	0.10	19.60	29.9	-0.04
MW-07/60	OK	2/12/2016 13:30	0.00	0.10	19.80	29.9	-0.04
MW-08/20	OK	2/12/2016 13:33	0.00	0.40	19.80	29.9	-0.02
MW-08/40	OK	2/12/2016 13:36	0.00	0.10	20.10	29.9	0.00
MW-08/60	OK	2/12/2016 13:37	0.00	0.10	20.20	29.9	-0.04
MW-11/20	OK	2/12/2016 13:19	0.00	0.10	18.80	29.9	-0.02
MW-11/40	OK	2/12/2016 13:21	0.00	0.10	19.00	29.9	-0.05
MW-11/60	OK	2/12/2016 13:23	0.00	0.10	19.20	29.9	-0.05
MW-13/20	OK	2/12/2016 13:40	0.00	0.20	20.30	29.9	0.00

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Overcast, 25°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
B-04	OK	2/22/2016 10:19	0.00	0.10	19.10	29.9	-0.80
B-05	OK	2/22/2016 10:22	0.00	0.10	19.10	29.9	-1.01
B-06	OK	2/22/2016 10:29	0.00	0.10	19.20	29.9	-0.58
B-07	OK	2/22/2016 10:32	0.00	0.10	19.20	29.9	-3.17
B-08	OK	2/22/2016 10:36	0.00	0.10	19.30	29.9	-0.94
B-09	OK	2/22/2016 10:43	0.00	0.10	19.30	29.9	-4.71
B-10	OK	2/22/2016 10:45	0.00	0.10	19.30	29.9	-1.00
B-11	OK	2/22/2016 10:47	0.00	0.10	19.40	29.9	-1.50
B-12	OK	2/22/2016 10:49	0.00	0.10	19.40	29.9	-7.12
B-13	OK	2/22/2016 10:55	0.00	0.10	19.50	29.9	-29.94
B-14	OK	2/22/2016 10:59	0.00	0.10	19.40	30.0	-3.63
B-15	OK	2/22/2016 11:02	0.00	0.10	19.50	30.0	-9.95
BLOWER B	N/A	2/22/2016 10:41	0.00	0.10	19.30	29.9	0.01
BLOWER C	N/A	2/22/2016 12:20	0.60	3.40	15.40	29.9	2.75

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 51°F

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-01/20	OK	2/22/2016 10:14	0.00	0.10	19.10	29.9	-0.32
MW-01/40	OK	2/22/2016 10:15	0.00	0.10	19.10	29.9	-0.33
MW-01/60	OK	2/22/2016 10:17	0.00	0.10	19.10	29.9	-0.30
MW-02/20	OK	2/22/2016 10:23	0.00	0.10	19.10	29.9	-0.26
MW-02/40	OK	2/22/2016 10:25	0.00	0.10	19.20	29.9	-0.36
MW-02/60	OK	2/22/2016 10:27	0.00	0.10	19.20	29.9	-0.38
MW-25/20	OK	2/22/2016 11:22	0.00	0.10	19.20	30.0	-0.15
MW-25/40	OK	2/22/2016 11:24	0.00	0.10	19.20	30.0	-0.19
MW-25/60	OK	2/22/2016 11:26	0.00	0.10	19.10	30.0	-0.50
MW-26/20	OK	2/22/2016 11:13	0.00	0.10	19.40	30.0	-0.18
MW-26/40	OK	2/22/2016 11:14	0.00	0.10	19.40	30.0	-0.34
MW-26/60	OK	2/22/2016 11:16	0.00	0.10	19.40	30.0	-0.08
MW-27/20	OK	2/22/2016 11:06	0.00	0.10	19.40	30.0	-0.07
MW-27/40	OK	2/22/2016 11:08	0.00	0.10	19.40	30.0	-0.27
MW-27/60	OK	2/22/2016 11:10	0.00	0.10	19.40	30.0	-0.23

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 51°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
C-01	OK	2/22/2016 13:14	0.00	0.10	19.50	29.9	-2.14
C-02	OK	2/22/2016 13:12	0.00	0.10	19.40	29.9	-0.92
C-03	OK	2/22/2016 13:08	0.00	0.10	19.50	29.9	-2.02
C-04	OK	2/22/2016 13:06	0.00	0.10	19.50	29.9	-1.23
C-05	OK	2/22/2016 13:02	0.00	0.10	19.60	29.9	-1.35
C-06	OK	2/22/2016 13:00	0.00	0.10	19.60	29.9	-1.33
C-07	OK	2/22/2016 12:57	0.00	0.00	19.60	29.9	-1.52
C-08	OK	2/22/2016 12:54	0.00	0.00	19.60	29.9	-1.52
C-09	OK	2/22/2016 12:53	0.00	0.00	19.60	29.9	-1.46
C-10	OK	2/22/2016 12:50	0.00	0.10	19.50	29.9	-3.41
C-11	OK	2/22/2016 12:48	0.00	0.10	19.40	30.0	-3.31
C-12	OK	2/22/2016 12:45	0.00	0.20	19.20	30.0	-2.27
C-13	OK	2/22/2016 12:42	0.00	0.00	19.30	30.0	-1.15
C-14	OK	2/22/2016 12:39	0.00	0.00	19.00	30.0	-0.89
C-15	OK	2/22/2016 12:32	0.00	0.00	18.80	30.0	-1.58
C-16	OK	2/22/2016 12:31	0.00	0.00	18.70	30.0	-1.21
C-17	OK	2/22/2016 13:22	0.00	4.90	15.50	29.9	-2.35
BLOWER C	N/A	2/22/2016 12:20	0.60	3.40	15.40	29.9	2.75

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 51°F

FPM

LANDFILL GAS MONITORING RESULTS

BLYDENBURGH ROAD LANDFILL

ISLIP, NEW YORK

Monitoring Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-19/20	OK	2/22/2016 13:42	0.00	0.50	18.90	29.9	-0.26
MW-19/40	OK	2/22/2016 13:44	0.00	0.10	19.30	29.9	-0.05
MW-19/60	OK	2/22/2016 13:45	0.00	0.10	19.20	29.9	-0.02
MW-23/20	OK	2/22/2016 13:34	0.00	0.10	19.20	29.9	0.00
MW-23/40	OK	2/22/2016 13:36	0.00	0.10	19.20	29.9	0.00
MW-23/60	OK	2/22/2016 13:38	0.00	0.10	19.20	29.9	-0.02

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 51°F

LANDFILL GAS MONITORING RESULTS

BLYDENBURGH ROAD LANDFILL

ISLIP, NEW YORK

Monitoring Wells

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-50	OK	2/22/2016 10:34	0.00	0.10	19.20	29.9	-0.17
MW-51	OK	2/12/2016 13:18	0.00	0.40	18.50	29.9	-0.02
MW-52	OK	2/12/2016 11:12	0.00	0.10	19.70	29.9	0.01
MW-53	OK	2/12/2016 11:47	0.00	0.20	19.80	30.0	0.00
MW-54	OK	2/12/2016 11:49	0.00	0.10	19.70	30.0	0.00
MW-56	OK	2/22/2016 12:25	0.00	0.10	18.50	29.9	0.00
MW-57	OK	2/22/2016 12:28	0.00	0.10	18.50	30.0	-0.03
MW-58	OK	2/22/2016 13:56	0.00	0.10	19.50	29.9	0.00
MW-59	OK	2/22/2016 12:37	0.00	0.10	18.90	30.0	0.02
MW-60	OK	2/22/2016 12:40	0.00	0.00	19.20	30.0	-0.10
MW-61	OK	2/22/2016 12:46	0.00	0.00	19.50	30.0	-0.41
MW-62	OK	2/22/2016 13:51	0.00	0.10	19.40	29.9	-0.11
MW-63	OK	2/22/2016 13:49	0.00	0.10	19.40	29.9	-0.26
MW-64	OK	2/22/2016 13:04	0.00	0.10	19.50	29.9	-0.30
MW-65	OK	2/22/2016 13:10	0.00	0.10	19.50	29.9	-0.18

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather: 2/12/2016 - Overcast, 25°F 2/22/2016 - Partly Cloudy, 51°F

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - Closed MSW Landfill

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure	Well Head Vacuum
MSW-01	*	NS	NS	NS	NS	NS	NS	NS
MSW-03	OK	2/17/2016 10:23	23.80	33.10	0.90	29.7	-1.06	-3.13
MSW-04	OK	2/17/2016 10:32	21.50	32.40	2.00	29.7	-3.14	-3.63
MSW-05	OK	2/17/2016 10:37	44.40	55.00	0.50	29.6	-2.15	-2.80
MSW-06	OK	2/17/2016 10:43	26.80	39.30	0.40	29.6	-1.96	-2.34
MSW-07	OK	2/17/2016 10:50	10.80	14.00	2.90	29.6	-1.61	-2.39
MSW-09	OK	2/17/2016 10:54	17.80	28.20	4.70	29.6	-1.67	-2.14
MSW-10	OK	2/17/2016 10:59	45.80	59.40	0.60	29.6	-1.50	-
MSW-11	OK	2/17/2016 11:05	32.30	45.10	0.30	29.7	-2.13	-2.45
MSW-12	OK	2/17/2016 11:13	34.40	45.80	0.40	29.6	-2.06	-2.31
MSW-13	OK	2/17/2016 11:18	46.10	60.60	0.80	29.6	-0.89	-
MSW-14	OK	2/17/2016 11:24	45.40	60.80	3.60	29.6	1.81	-
MSW-15	OK	2/17/2016 11:28	23.20	25.10	11.40	29.7	-1.49	-2.91
MSW-16	OK	2/17/2016 11:40	28.70	41.70	0.40	29.6	-2.35	-2.46
MSW-17	OK	2/17/2016 10:28	37.50	48.60	1.00	29.6	-1.24	-
MSW-18	OK	2/17/2016 11:46	35.10	47.20	0.70	29.7	-1.80	-
MSW-19	OK	2/17/2016 11:34	46.20	59.10	3.60	29.7	-1.32	-1.48

Notes:

- = No well head vacuum sample port present.
CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
NS - Not Sampled
Weather - Partly Cloudy, 41°F

***MSW-01 - Well under repair**

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

CLOSED MSW LANDFILL

Location ID	Date	Time	CH_4	CO_2	O_2	Temp.	Well Head Pressure	Atmospheric Pressure	Valve Position
N. Valve Structure									
V-200	2/22/2016	9:35	29.90	38.10	1.50	58	-4.24	29.9	1/2 open
V-203		9:38	2.90	9.80	10.20	56	-3.58	29.9	1/4 open
Dog House									
Phase IV Vertical	2/22/2016	9:42	24.00	34.60	1.80	54	-5.76	29.9	open
Phase II Horizontal		9:44	0.00	7.40	12.60	58	-1.28	29.9	closed
Small Dog House	2/22/2016								
Phase II Horizontal		9:46	4.80	12.60	9.90	54	-5.48	29.9	1/2 open
Phase II Valve Pit									
E-Horizontal	2/22/2016	9:52	38.30	50.20	0.40	50	-7.34	29.9	1/2 open
W-Horizontal		9:54	30.30	46.50	0.50	52	-7.73	29.9	1/2 open
CF Phase II-Vertical**									NS
Flare Compound									
*MP-01 Gas Analyzer	2/22/2016	9:58	0.00	0.20	19.20	54	-10.75	29.9	N/A
CF Phase I**		NS	NS	NS	NS	NS	NS	NS	NS

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Temperature measured in degrees Farenheit.
Blower status - On
Weather - Partly Cloudy, 51°F
* = Analyzer combined
** = Offline
N/A = Not Applicable
NS = Not Sampled

FPM

AMBIENT VOLATILE ORGANIC COMPOUND (VOC) GAS MONITORING RESULTS
BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Location ID	Date	Location Description	VOCs
AMBIENT 1	2/22/2016	Northeastern portion of landfill property, just west of well C-13	0.0
AMBIENT 2	2/22/2016	Southeastern portion of landfill property, just west of well MW-D10	0.0
AMBIENT 3	2/22/2016	Northwestern portion of landfill property, just southeast of well A-17	0.0
AMBIENT 4	2/22/2016	Southwestern portion of landfill property, just east of well MW-2C	0.0

Notes:

VOCs reported as parts per million, as measured by a calibrated photoionization detector.
Weather - Partly Cloudy, 51°F

FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

909 Marconi Avenue
Ronkonkoma, NY 11779
631/737-6200
Fax 631/737-2410

April 5, 2016

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

Re: **Blydenburgh Road Landfill**
March 2016 Landfill Gas and VOC Gas Monitoring Results
FPM File No. 631-16-29

Dear Mr. Varrichio:

On March 8, 16, and 22, 2016, FPM Group (FPM) performed landfill gas and volatile organic compound (VOC) gas monitoring at the above-referenced site. Monitoring of landfill gas was performed with a Landtec GEM 2000 Gas Analyzer. Monitoring for VOCs in ambient air was performed with a Photovac photoionization detector (PID), model 2020 Pro Plus. Ambient air VOC monitoring was conducted to address the provision for this measure in the Record of Decision (ROD) for this facility and was performed at four locations near the landfill perimeter, including one location downwind from the flare system.

For the Landtec GEM 2000 Gas Analyzer, oxygen (O_2) gas and methane (CH_4) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH_4 and 15% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. The Photovac PID was zeroed with ambient air prior to arrival at the landfill property, and calibrated with 100 parts per million (ppm) isobutylene prior to sampling in accordance with the manufacturer's recommendations.

The landfill gas monitoring results are provided in Tables 1 through 11 and the ambient air VOC monitoring results are provided in Table 12. CH_4 was not detected in any of the landfill monitoring wells this month and VOCs were not detected in the ambient air. An elevated level of O_2 was detected in wells MSW-13 and MSW-15. This issue is being addressed. **Prior to the next monitoring event, please replace the sample port on monitoring well B-11.**

The next landfill gas monitoring event will begin on April 6, 2016. Jim Jahnke will be notified several days in advance of the sampling event.

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 242.

Sincerely,

George Holmes
Hydrogeologist

GH:tac
Attachments

cc: Jim Jahnke (via email)
Fazil Rahaman (via email)

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
A-01	OK	3/8/2016 11:02	0.00	0.30	18.40	29.9	-0.47
A-02	OK	3/8/2016 11:05	0.00	0.10	18.70	29.9	-0.67
A-03	OK	3/8/2016 11:10	0.00	0.10	18.80	29.9	-0.66
A-04	OK	3/8/2016 11:12	0.00	0.20	18.70	29.9	-0.53
A-05	OK	3/8/2016 11:15	0.00	0.10	18.90	29.9	-0.37
A-06	OK	3/8/2016 11:20	0.00	0.10	18.90	29.9	-1.73
A-07	OK	3/8/2016 11:22	0.00	0.10	19.00	29.9	-3.77
A-08	OK	3/8/2016 11:26	0.00	0.10	19.10	29.9	-1.33
A-09	OK	3/8/2016 11:29	0.00	0.10	19.10	29.9	-1.04
A-10	OK	3/8/2016 11:30	0.00	0.40	18.90	29.9	-0.77
A-11	OK	3/8/2016 11:38	0.00	0.10	19.10	29.9	-3.61
A-12	OK	3/8/2016 11:40	0.00	0.10	19.20	29.9	-0.47
A-13	OK	3/8/2016 11:45	0.00	0.10	19.20	29.9	-0.48
A-14	OK	3/8/2016 11:49	0.00	1.10	18.20	29.9	-0.28
A-15	OK	3/8/2016 11:54	0.00	0.60	18.60	29.9	-0.29
A-16	OK	3/8/2016 12:17	0.00	0.00	18.50	29.9	-0.83
A-17	OK	3/8/2016 12:20	0.00	0.00	18.60	29.9	-0.63
A-18	OK	3/8/2016 12:22	0.00	0.00	18.70	29.9	-1.61
BLOWER A	N/A	3/8/2016 12:32	0.30	2.10	17.10	30.0	26.99
BLOWER B	N/A	3/8/2016 12:34	0.00	0.10	19.10	30.0	0.00

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 60°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-07/20	OK	3/8/2016 13:10	0.00	0.00	19.20	29.9	-0.09
MW-07/40	OK	3/8/2016 13:12	0.00	0.00	19.30	29.9	-0.10
MW-07/60	OK	3/8/2016 13:13	0.00	0.00	19.30	29.9	-0.14
MW-08/20	OK	3/8/2016 13:15	0.00	0.00	19.20	29.9	-0.08
MW-08/40	OK	3/8/2016 13:18	0.00	0.00	19.40	29.9	-0.08
MW-08/60	OK	3/8/2016 13:20	0.00	0.00	19.30	29.9	-0.10
MW-11/20	OK	3/8/2016 13:03	0.00	0.00	18.90	29.9	-0.06
MW-11/40	OK	3/8/2016 13:05	0.00	0.00	18.90	29.9	-0.09
MW-11/60	OK	3/8/2016 13:07	0.00	0.00	19.00	29.9	-0.06
MW-13/20	OK	3/8/2016 13:22	0.00	0.10	19.40	29.9	0.00

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 60°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
B-04	OK	3/22/2016 9:34	0.00	0.10	19.20	29.9	-0.96
B-05	OK	3/22/2016 9:37	0.00	0.10	19.10	29.9	-1.08
B-06	OK	3/22/2016 9:44	0.00	0.10	19.10	29.9	-0.54
B-07	OK	3/22/2016 9:46	0.00	0.10	19.10	29.9	-3.06
B-08	OK	3/22/2016 9:49	0.00	0.10	19.20	29.9	-0.93
B-09	OK	3/22/2016 9:54	0.00	0.10	19.30	30.0	-5.00
B-10	OK	3/22/2016 9:57	0.00	0.10	19.40	30.0	-1.01
B-11	OK	3/22/2016 9:58	0.00	0.10	19.40	30.0	-1.33
B-12	OK	3/22/2016 10:00	0.00	0.10	19.50	30.0	-5.94
B-13	OK	3/22/2016 10:18	0.00	0.10	19.00	30.0	-29.15
B-14	OK	3/22/2016 10:20	0.00	0.10	19.10	30.0	-3.58
B-15	OK	3/22/2016 10:22	0.00	0.10	19.10	30.0	-9.66
BLOWER B	N/A	3/22/2016 9:52	0.00	0.20	19.20	29.9	0.02
BLOWER C	N/A	3/22/2016 10:02	0.60	3.10	17.00	30.0	2.90

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 50°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-01/20	OK	3/22/2016 9:28	0.00	0.10	19.20	29.9	-0.38
MW-01/40	OK	3/22/2016 9:30	0.00	0.10	19.20	29.9	-0.36
MW-01/60	OK	3/22/2016 9:31	0.00	0.10	19.20	29.9	-0.34
MW-02/20	OK	3/22/2016 9:39	0.00	0.10	19.10	29.9	-0.24
MW-02/40	OK	3/22/2016 9:40	0.00	0.10	19.10	29.9	-0.34
MW-02/60	OK	3/22/2016 9:42	0.00	0.10	19.10	29.9	-0.31
MW-25/20	OK	3/22/2016 10:37	0.00	0.10	18.30	30.0	-0.14
MW-25/40	OK	3/22/2016 10:39	0.00	0.10	18.40	30.0	-0.16
MW-25/60	OK	3/22/2016 10:41	0.00	0.10	18.40	30.0	-0.49
MW-26/20	OK	3/22/2016 10:46	0.00	0.10	18.40	30.0	-0.16
MW-26/40	OK	3/22/2016 10:47	0.00	0.10	18.50	30.0	-0.28
MW-26/60	OK	3/22/2016 10:49	0.00	0.10	18.60	30.0	-0.04
MW-27/20	OK	3/22/2016 10:53	0.00	0.10	18.70	30.0	-0.04
MW-27/40	OK	3/22/2016 10:54	0.00	0.10	18.80	30.0	-0.16
MW-27/60	OK	3/22/2016 10:56	0.00	0.10	18.90	30.0	-0.15

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 50°F

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
C-01	OK	3/22/2016 12:36	0.00	0.10	19.60	29.9	-1.86
C-02	OK	3/22/2016 12:34	0.00	0.30	19.40	29.9	-0.72
C-03	OK	3/22/2016 12:30	0.00	0.10	19.50	29.9	-2.01
C-04	OK	3/22/2016 12:27	0.00	0.10	19.50	29.9	-1.28
C-05	OK	3/22/2016 12:23	0.00	0.10	19.30	29.9	-1.39
C-06	OK	3/22/2016 12:18	0.00	0.10	19.50	29.9	-1.34
C-07	OK	3/22/2016 12:14	0.00	0.10	19.50	29.9	-1.66
C-08	OK	3/22/2016 12:12	0.00	0.10	19.50	29.9	-1.92
C-09	OK	3/22/2016 12:11	0.00	0.10	19.50	30.0	-1.09
C-10	OK	3/22/2016 12:07	0.00	0.10	19.50	30.0	-3.58
C-11	OK	3/22/2016 12:05	0.00	0.20	19.40	30.0	-2.55
C-12	OK	3/22/2016 12:02	0.00	0.10	19.30	30.0	-2.54
C-13	OK	3/22/2016 11:58	0.00	0.10	19.30	30.0	-1.26
C-14	OK	3/22/2016 11:55	0.00	0.10	19.10	30.0	-0.92
C-15	OK	3/22/2016 11:49	0.00	0.10	18.90	30.0	-1.60
C-16	OK	3/22/2016 11:48	0.00	0.10	18.90	30.0	-0.98
C-17	OK	3/22/2016 12:40	0.30	4.90	15.60	29.9	-2.51
BLOWER C	N/A	3/22/2016 10:02	0.60	3.10	17.00	30.0	2.90

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 50°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-19/20	OK	3/22/2016 13:26	0.00	0.40	18.70	29.9	-0.12
MW-19/40	OK	3/22/2016 13:28	0.00	0.10	19.00	29.9	-0.02
MW-19/60	OK	3/22/2016 13:29	0.00	0.10	19.00	29.9	0.02
MW-23/20	OK	3/22/2016 13:19	0.00	0.20	18.60	29.9	0.18
MW-23/40	OK	3/22/2016 13:21	0.00	1.90	16.50	29.9	0.03
MW-23/60	OK	3/22/2016 13:23	0.00	0.10	18.70	29.9	0.33

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 50°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-50	OK	3/22/2016 9:47	0.00	0.10	19.20	29.9	-0.16
MW-51	OK	3/8/2016 13:02	0.00	0.10	18.80	29.9	-0.17
MW-52	OK	3/8/2016 11:35	0.00	0.20	18.90	29.9	-0.02
MW-53	OK	3/8/2016 12:25	0.00	0.00	18.80	29.9	-0.08
MW-54	OK	3/8/2016 12:28	0.00	0.10	18.80	30.0	-0.07
MW-56	OK	3/22/2016 11:44	0.00	0.10	18.70	30.0	-0.03
MW-57	OK	3/22/2016 11:46	0.00	0.10	18.80	30.0	0.00
MW-58	OK	3/22/2016 13:41	0.00	1.00	18.60	29.9	0.01
MW-59	OK	3/22/2016 11:52	0.00	0.10	19.00	30.0	-0.01
MW-60	OK	3/22/2016 11:56	0.00	0.10	19.20	30.0	-0.10
MW-61	OK	3/22/2016 12:04	0.00	0.10	19.40	30.0	-0.31
MW-62	OK	3/22/2016 13:35	0.00	0.60	18.90	29.9	0.00
MW-63	OK	3/22/2016 13:33	0.00	0.10	19.30	29.9	0.01
MW-64	OK	3/22/2016 12:25	0.00	0.10	19.40	29.9	-0.14
MW-65	OK	3/22/2016 12:32	0.00	0.10	19.50	29.9	-0.07

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather: 3/8/2016 - Partly Cloudy, 60°F 3/22/2016 - Partly Cloudy, 50°F

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - Closed MSW Landfill

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure	Well Head Vacuum
MSW-01	*	NS	NS	NS	NS	NS	NS	NS
MSW-03	OK	3/16/2016 9:34	19.80	29.70	1.80	29.5	-0.85	-4.43
MSW-04	OK	3/16/2016 9:41	16.40	29.60	2.50	29.6	-4.24	-5.33
MSW-05	OK	3/16/2016 9:46	44.30	52.20	0.30	29.5	-2.51	-4.62
MSW-06	OK	3/16/2016 9:51	23.70	36.50	0.20	29.5	-2.43	-3.42
MSW-07	OK	3/16/2016 9:56	9.60	11.60	2.90	29.5	-1.89	-3.43
MSW-09	OK	3/16/2016 10:00	19.70	33.90	0.90	29.5	-2.00	-3.01
MSW-10	OK	3/16/2016 10:06	44.10	54.90	0.80	29.5	-1.69	-
MSW-11	OK	3/16/2016 10:08	26.10	39.50	0.30	29.6	-3.14	-3.24
MSW-12	OK	3/16/2016 10:17	28.50	41.20	0.30	29.5	-2.83	-3.23
MSW-13	OK	3/16/2016 10:30	46.60	55.30	4.40	29.5	-1.01	-
MSW-14	OK	3/16/2016 10:33	46.30	60.00	0.60	29.6	1.98	-
MSW-15	OK	3/16/2016 10:35	13.10	11.40	14.70	29.6	-1.77	-3.91
MSW-16	OK	3/16/2016 10:38	24.80	37.80	0.30	29.6	-3.20	-3.71
MSW-17	OK	3/16/2016 9:39	29.70	42.40	1.50	29.5	-1.17	-
MSW-18	OK	3/16/2016 10:44	30.30	41.80	0.60	29.5	-2.36	-
MSW-19	OK	3/16/2016 10:41	43.00	56.40	1.40	29.6	-1.74	-1.73

Notes:

- = No well head vacuum sample port present.
CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
NS - Not Sampled
Weather - Overcast, 61°F

***MSW-01 - Well under repair**

ISLIP, NEW YORK

CLOSED MSW LANDFILL

Location ID	Date	Time	CH_4	CO_2	O_2	Temp.	Well Head Pressure	Atmospheric Pressure	Valve Position
N. Valve Structure									
V-200	3/16/2016	9:45	32.60	40.30	1.10	70	-2.86	29.7	1/2 open
V-203		9:47	3.20	10.60	9.70	62	-3.76	29.7	1/4 open
Dog House									
Phase IV Vertical	3/16/2016	9:52	23.50	34.30	1.70	68	-6.43	29.7	open
Phase II Horizontal		9:54	0.10	5.00	14.30	70	-1.04	29.6	closed
Small Dog House	3/16/2016								
Phase II Horizontal		9:57	5.60	15.90	6.80	68	-5.61	29.6	1/2 open
Phase II Valve Pit									
E-Horizontal	3/16/2016	10:01	34.80	48.70	0.30	66	-7.62	29.6	1/2 open
W-Horizontal		10:03	25.70	44.00	0.30	68	7.68	29.6	1/2 open
CF Phase II-Vertical**									NS
Flare Compound									
*MP-01 Gas Analyzer	3/16/2016	11:45	0.00	0.10	18.80	66	-11.36	29.6	N/A
CF Phase I**		NS	NS	NS	NS	NS	NS	NS	NS

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Temperature measured in degrees Farenheit.
Blower status - On
Weather - Overcast, 61°F
* = Analyzer combined
** = Offline
N/A = Not Applicable
NS = Not Sampled

Location ID	Date	Location Description	VOCs
AMBIENT 1	3/22/2016	Northern portion of landfill property, just south of MW-26/40	0.0
AMBIENT 2	3/22/2016	Southern portion of landfill property, just north of MW-D4/40	0.0
AMBIENT 3	3/22/2016	Western portion of landfill property, just east of B-04	0.0
AMBIENT 4	3/22/2016	Eastern portion of landfill property, just west of C-04	0.0

Notes:

VOCs reported as parts per million, as measured by a calibrated photoionization detector.
Weather - Partly Cloudy, 60°F

FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

909 Marconi Avenue
Ronkonkoma, NY 11779
631/737-6200
Fax 631/737-2410

May 5, 2016

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

Re: **Blydenburgh Road Landfill**
April 2016 Landfill Gas and VOC Gas Monitoring Results
FPM File No. 631-16-29

Dear Mr. Varrichio:

On April 5, 11, and 18, 2016, FPM Group (FPM) performed landfill gas and volatile organic compound (VOC) gas monitoring at the above-referenced site. Monitoring of landfill gas was performed with a Landtec GEM 2000 Gas Analyzer. Monitoring for VOCs in ambient air was performed with a Photovac photoionization detector (PID), model 2020 Pro Plus. Ambient air VOC monitoring was conducted to address the provision for this measure in the Record of Decision (ROD) for this facility and was performed at four locations near the landfill perimeter, including one location downwind from the flare system.

For the Landtec GEM 2000 Gas Analyzer, oxygen (O_2) gas and methane (CH_4) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH_4 and 15% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. The Photovac PID was zeroed with ambient air prior to arrival at the landfill property, and calibrated with 100 parts per million (ppm) isobutylene prior to sampling in accordance with the manufacturer's recommendations.

The landfill gas monitoring results are provided in Tables 1 through 11 and the ambient air VOC monitoring results are provided in Table 12. CH_4 was not detected in any of the landfill monitoring wells this month and VOCs were not detected in the ambient air. An elevated level of O_2 was detected in wells MSW-10, MSW-13, and MSW-15. This issue is being addressed. It should be noted that well MW-2J was not sampled as it was damaged. This well is being repaired.

The next landfill gas monitoring event will begin on May 5, 2016. Jim Jahnke will be notified several days in advance of the sampling event.

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 242.

Sincerely,

George Holmes
Hydrogeologist

GH:tac
Attachments

cc: Jim Jahnke (via email)
Fazil Rahaman (via email)

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
A-01	OK	4/5/2016 11:25	0.00	0.20	18.50	30.0	-0.50
A-02	OK	4/5/2016 11:28	0.00	0.10	18.60	30.0	-0.39
A-03	OK	4/5/2016 11:30	0.00	0.10	18.80	30.0	-0.76
A-04	OK	4/5/2016 11:33	0.00	0.20	18.80	30.0	-0.56
A-05	OK	4/5/2016 11:36	0.00	0.10	19.10	30.0	-0.39
A-06	OK	4/5/2016 11:38	0.00	0.10	19.30	30.0	-1.80
A-07	OK	4/5/2016 11:42	0.00	0.10	19.60	30.0	-4.01
A-08	OK	4/5/2016 11:45	0.00	0.10	19.70	30.0	-1.37
A-09	OK	4/5/2016 11:48	0.00	0.10	19.80	30.0	-1.01
A-10	OK	4/5/2016 11:50	0.00	0.10	19.90	30.0	-0.73
A-11	OK	4/5/2016 11:55	0.00	0.10	20.00	30.1	-4.24
A-12	OK	4/5/2016 11:58	0.00	0.10	20.00	30.0	-0.39
A-13	OK	4/5/2016 12:00	0.00	0.10	20.00	30.0	-0.42
A-14	OK	4/5/2016 12:02	0.00	1.10	19.20	30.0	-0.37
A-15	OK	4/5/2016 12:04	0.00	1.00	19.20	30.0	-0.26
A-16	OK	4/5/2016 12:36	0.00	0.10	18.90	30.0	-0.75
A-17	OK	4/5/2016 12:38	0.00	0.10	18.90	30.1	-0.65
A-18	OK	4/5/2016 12:40	0.00	0.10	18.90	30.1	-1.88
BLOWER A	N/A	4/5/2016 12:49	0.20	2.00	18.00	30.1	26.36
BLOWER B	N/A	4/5/2016 12:51	0.00	0.10	19.60	30.1	0.00

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 54°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-07/20	OK	4/5/2016 13:21	0.00	0.10	19.00	30.1	-0.15
MW-07/40	OK	4/5/2016 13:23	0.00	0.10	19.10	30.0	-0.14
MW-07/60	OK	4/5/2016 13:25	0.00	0.10	19.20	30.0	-0.20
MW-08/20	OK	4/5/2016 13:26	0.00	0.30	19.10	30.0	-0.12
MW-08/40	OK	4/5/2016 13:28	0.00	0.20	19.20	30.0	-0.16
MW-08/60	OK	4/5/2016 13:30	0.00	0.10	19.50	30.0	-0.20
MW-11/20	OK	4/5/2016 13:32	0.00	0.10	19.70	30.0	-0.07
MW-11/40	OK	4/5/2016 13:34	0.00	0.10	19.70	30.0	-0.09
MW-11/60	OK	4/5/2016 13:35	0.00	0.10	19.90	30.0	-0.12
MW-13/20	OK	4/5/2016 13:39	0.00	0.20	20.00	30.0	-0.04

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 54°F

FPM

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BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
B-04	OK	4/18/2016 10:29	0.00	0.10	18.70	30.0	-0.57
B-05	OK	4/18/2016 10:32	0.00	0.10	18.80	30.0	-1.00
B-06	OK	4/18/2016 10:40	0.00	0.10	18.80	30.0	-0.56
B-07	OK	4/18/2016 10:43	0.00	0.10	18.80	30.0	-2.86
B-08	OK	4/18/2016 10:46	0.00	0.10	18.90	30.0	-0.88
B-09	OK	4/18/2016 10:55	0.00	0.10	18.80	30.0	-5.28
B-10	OK	4/18/2016 10:58	0.00	0.10	18.90	30.0	-1.14
B-11	OK	4/18/2016 10:59	0.00	0.00	18.80	30.0	-1.95
B-12	OK	4/18/2016 11:02	0.00	0.00	18.90	30.0	-4.78
B-13	OK	4/18/2016 11:04	0.00	0.00	18.90	30.0	-31.29
B-14	OK	4/18/2016 11:06	0.00	0.00	18.90	30.0	-3.54
B-15	OK	4/18/2016 11:09	0.00	0.00	18.90	30.0	-9.16
BLOWER B	N/A	4/18/2016 10:53	0.00	0.30	17.90	30.0	0.01
BLOWER C	N/A	4/18/2016 12:29	0.70	2.70	15.30	30.0	3.11

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 59°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-01/20	OK	4/18/2016 10:24	0.00	0.10	18.70	30.0	-0.14
MW-01/40	OK	4/18/2016 10:26	0.00	0.10	18.70	30.0	-0.12
MW-01/60	OK	4/18/2016 10:28	0.00	0.10	18.70	29.9	-0.15
MW-02/20	OK	4/18/2016 10:34	0.00	0.10	18.90	30.0	-0.12
MW-02/40	OK	4/18/2016 10:36	0.00	0.10	18.90	30.0	-0.18
MW-02/60	OK	4/18/2016 10:38	0.00	0.10	18.80	30.0	-0.19
MW-25/20	OK	4/18/2016 11:27	0.00	0.00	18.80	30.0	-0.04
MW-25/40	OK	4/18/2016 11:28	0.00	0.00	18.90	30.0	-0.19
MW-25/60	OK	4/18/2016 11:31	0.00	0.00	18.90	30.0	-0.17
MW-26/20	OK	4/18/2016 11:36	0.00	0.00	18.80	30.0	-0.14
MW-26/40	OK	4/18/2016 11:38	0.00	0.00	18.80	30.0	-0.26
MW-26/60	OK	4/18/2016 11:39	0.00	0.00	18.80	30.0	-0.04
MW-27/20	OK	4/18/2016 11:27	0.00	0.00	18.80	30.0	-0.04
MW-27/40	OK	4/18/2016 11:28	0.00	0.00	18.90	30.0	-0.19
MW-27/60	OK	4/18/2016 11:31	0.00	0.00	18.90	30.0	-0.17

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 59°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
C-01	OK	4/18/2016 13:34	0.00	0.00	19.00	29.9	-1.78
C-02	OK	4/18/2016 13:31	0.00	1.00	17.70	29.9	-0.75
C-03	OK	4/18/2016 13:27	0.00	0.00	19.00	29.9	-1.75
C-04	OK	4/18/2016 13:23	0.00	0.00	18.90	29.9	-1.37
C-05	OK	4/18/2016 13:19	0.00	0.00	18.80	30.0	-1.32
C-06	OK	4/18/2016 13:16	0.00	0.00	18.80	30.0	-1.04
C-07	OK	4/18/2016 13:13	0.00	0.00	18.80	30.0	-1.45
C-08	OK	4/18/2016 13:11	0.00	0.00	18.80	30.0	-1.83
C-09	OK	4/18/2016 13:07	0.00	0.00	18.80	30.0	-1.22
C-10	OK	4/18/2016 13:06	0.00	0.00	18.70	30.0	-2.21
C-11	OK	4/18/2016 13:02	0.00	0.00	18.70	30.0	-2.40
C-12	OK	4/18/2016 12:59	0.00	0.10	18.30	30.0	-2.03
C-13	OK	4/18/2016 12:57	0.00	0.00	18.50	30.0	-1.14
C-14	OK	4/18/2016 12:53	0.00	0.00	18.30	30.0	-0.98
C-15	OK	4/18/2016 12:48	0.00	0.00	18.20	30.0	-1.12
C-16	OK	4/18/2016 12:47	0.00	0.00	18.10	30.0	-0.94
C-17	OK	4/18/2016 13:37	0.00	3.80	15.70	29.9	-2.01
BLOWER C	N/A	4/18/2016 12:29	0.70	2.70	15.30	30.0	3.11

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 59°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-19/20	OK	4/18/2016 14:09	0.00	0.30	18.10	29.9	-0.20
MW-19/40	OK	4/18/2016 14:11	0.00	0.20	18.20	30.0	-0.04
MW-19/60	OK	4/18/2016 14:12	0.00	0.20	18.20	30.0	-0.01
MW-23/20	OK	4/18/2016 14:02	0.00	4.00	12.80	29.9	0.00
MW-23/40	OK	4/18/2016 14:03	0.00	2.50	15.00	29.9	0.15
MW-23/60	OK	4/18/2016 14:05	0.00	1.10	16.80	29.9	0.18

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 59°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-50	OK	4/18/2016 10:44	0.00	0.10	18.80	30.0	-0.03
MW-51	OK	4/5/2016 13:37	0.00	0.10	20.00	30.0	-0.17
MW-52	OK	4/5/2016 11:53	0.00	0.50	19.60	30.0	-0.04
MW-53	OK	4/5/2016 12:43	0.00	0.10	19.20	30.1	-0.10
MW-54	OK	4/5/2016 12:45	0.00	0.20	19.20	30.1	-0.12
MW-56	OK	4/18/2016 12:40	0.00	0.00	18.00	30.0	0.00
MW-57	OK	4/18/2016 12:45	0.00	0.00	17.90	30.0	-0.02
MW-58	OK	4/18/2016 14:22	0.00	0.80	17.50	30.0	0.00
MW-59	OK	4/18/2016 12:50	0.00	0.00	18.00	30.0	0.00
MW-60	OK	4/18/2016 12:55	0.00	0.00	18.40	30.0	-0.13
MW-61	OK	4/18/2016 13:00	0.00	0.00	18.60	30.0	-0.32
MW-62	OK	4/18/2016 14:16	0.00	0.00	18.60	30.0	0.00
MW-63	OK	4/18/2016 14:14	0.00	0.00	18.60	29.9	-0.01
MW-64	OK	4/18/2016 13:21	0.00	0.00	18.90	30.0	-0.20
MW-65	OK	4/18/2016 13:29	0.00	0.00	19.00	29.9	-0.09

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather: 4/5/2016 - Partly Cloudy, 54°F 4/18/2016 - Partly Cloudy, 59°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - Closed MSW Landfill

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure	Well Head Vacuum
MSW-01	*	NS	NS	NS	NS	NS	NS	NS
MSW-03	OK	4/11/2016 10:05	19.90	29.50	1.70	29.9	0.07	-4.46
MSW-04	OK	4/11/2016 10:11	13.80	28.20	3.00	29.9	-3.97	-5.15
MSW-05	OK	4/11/2016 10:16	42.60	51.50	0.30	29.9	-2.14	-3.63
MSW-06	OK	4/11/2016 10:20	25.50	37.40	0.20	29.9	-2.12	-3.12
MSW-07	OK	4/11/2016 10:24	15.70	14.20	2.80	29.9	-1.53	-3.33
MSW-09	OK	4/11/2016 10:29	20.30	33.90	1.70	29.9	-1.62	-2.80
MSW-10	OK	4/11/2016 10:37	44.50	55.00	3.90	29.9	-1.37	-
MSW-11	OK	4/11/2016 10:41	25.50	40.00	0.40	29.9	-2.49	-3.21
MSW-12	OK	4/11/2016 10:46	28.00	41.90	0.40	29.9	-2.58	-3.05
MSW-13	OK	4/11/2016 10:52	42.70	58.30	4.40	29.9	-0.66	-
MSW-14	OK	4/11/2016 10:57	46.90	60.20	2.10	29.9	2.30	-
MSW-15	OK	4/11/2016 11:00	16.70	17.40	13.60	29.9	-1.47	-3.78
MSW-16	OK	4/11/2016 11:03	22.40	38.20	0.40	29.9	-3.00	-3.57
MSW-17	OK	4/11/2016 10:09	26.80	42.40	0.70	29.9	-0.62	-
MSW-18	OK	4/11/2016 11:09	30.10	43.20	0.80	29.9	-2.00	-
MSW-19	OK	4/11/2016 11:05	46.10	57.90	1.50	29.9	-1.36	-1.31

Notes:

- = No well head vacuum sample port present.
CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
NS - Not Sampled
Weather - Overcast, 56°F

***MSW-01 - Well under repair**

FPM

ISLIP, NEW YORK

CLOSED MSW LANDFILL

Location ID	Date	Time	CH_4	CO_2	O_2	Temp.	Well Head Pressure	Atmospheric Pressure	Valve Position
N. Valve Structure									
V-200	4/18/2016	9:50	47.50	46.90	1.00	78	-3.10	30.0	1/2 open
V-203		9:53	3.80	11.10	9.00	76	-4.35	30.0	1/4 open
Dog House									
Phase IV Vertical	4/18/2016	9:58	24.00	34.50	1.50	80	-5.49	30.0	open
Phase II Horizontal		10:01	0.10	4.50	15.40	80	-0.75	30.0	closed
Small Dog House	4/18/2016								
Phase II Horizontal		10:05	4.80	11.80	9.50	78	-5.63	30.0	1/2 open
Phase II Valve Pit									
E-Horizontal	4/18/2016	10:07	33.50	47.70	0.40	78	-7.55	30.0	1/2 open
W-Horizontal		10:09	24.60	42.40	0.30	74	-7.69	30.0	1/2 open
CF Phase II-Vertical**									NS
Flare Compound									
*MP-01 Gas Analyzer	4/18/2016	10:13	0.00	0.10	18.70	78	-10.91	30.0	N/A
CF Phase I**		NS	NS	NS	NS	NS	NS	NS	NS

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Temperature measured in degrees Farenheit.
Blower status - On
Weather - Partly Cloudy, 59°F
* = Analyzer combined
** = Offline
N/A = Not Applicable
NS = Not Sampled

Location ID	Date	Location Description	VOCs
AMBIENT 1	4/18/2016	Northeastern portion of landfill property, just west of well C-13	0.0
AMBIENT 2	4/18/2016	Southeastern portion of landfill property, just west of well MW-D10	0.0
AMBIENT 3	4/18/2016	Northwestern portion of landfill property, just southeast of well A-17	0.0
AMBIENT 4	4/18/2016	Southwestern portion of landfill property, just east of well MW-2C	0.0

Notes:

VOCs reported as parts per million, as measured by a calibrated photoionization detector.
Weather - Partly Cloudy, 59°F

FPM Group, Ltd.
FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

June 3, 2016

CORPORATE HEADQUARTERS
909 Marconi Avenue
Ronkonkoma, NY 11779
631/737-6200
Fax 631/737-2410

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

Re: **Blydenburgh Road Landfill**
May 2016 Landfill Gas and VOC Gas Monitoring Results
FPM File No. 631-16-29

Dear Mr. Varrichio:

On May 5, 10, and 23, 2016, FPM Group (FPM) performed landfill gas and volatile organic compound (VOC) gas monitoring at the above-referenced site. Monitoring of landfill gas was performed with a Landtec GEM 2000 Gas Analyzer. Monitoring for VOCs in ambient air was performed with a Photovac photoionization detector (PID), model 2020 Pro Plus. Ambient air VOC monitoring was conducted to address the provision for this measure in the Record of Decision (ROD) for this facility and was performed at four locations near the landfill perimeter, including one location downwind from the flare system.

For the Landtec GEM 2000 Gas Analyzer, oxygen (O_2) gas and methane (CH_4) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH_4 and 15% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. The Photovac PID was zeroed with ambient air prior to arrival at the landfill property, and calibrated with 100 parts per million (ppm) isobutylene prior to sampling in accordance with the manufacturer's recommendations.

The landfill gas monitoring results are provided in Tables 1 through 11 and the ambient air VOC monitoring results are provided in Table 12. CH_4 was not detected in any of the landfill monitoring wells this month and VOCs were not detected in the ambient air. An elevated level of O_2 was detected in wells MSW-05 through MSW-09, and MSW-15. This issue is being addressed.

The next landfill gas monitoring event will begin on June 8, 2016. Jim Jahnke will be notified several days in advance of the sampling event.

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 242.

Sincerely,

Chris Linkletter
Hydrogeologist

CL:tac
Attachments

cc: Jim Jahnke (via email)
Fazil Rahaman (via email)

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BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
A-01	OK	5/5/2016 11:19	0.10	0.30	18.80	29.4	-0.35
A-02	OK	5/5/2016 11:20	0.00	0.10	19.00	29.4	-0.27
A-03	OK	5/5/2016 11:22	0.00	0.10	19.10	29.4	-0.45
A-04	OK	5/5/2016 11:27	0.00	0.30	19.00	29.4	-0.44
A-05	OK	5/5/2016 11:30	0.00	0.10	19.20	29.4	-0.30
A-06	OK	5/5/2016 11:35	0.00	0.10	19.20	29.4	-1.63
A-07	OK	5/5/2016 11:37	0.00	0.10	19.30	29.5	-3.75
A-08	OK	5/5/2016 11:41	0.00	0.10	19.30	29.5	-1.25
A-09	OK	5/5/2016 11:44	0.00	0.10	19.40	29.4	-1.05
A-10	OK	5/5/2016 11:47	0.00	0.10	19.40	29.4	-0.71
A-11	OK	5/5/2016 11:54	0.00	0.10	19.40	29.5	-3.82
A-12	OK	5/5/2016 11:56	0.00	0.10	19.50	29.4	-0.45
A-13	OK	5/5/2016 11:59	0.00	0.10	19.50	29.4	-0.41
A-14	OK	5/5/2016 12:02	0.00	1.00	18.70	29.4	-0.32
A-15	OK	5/5/2016 12:05	0.00	1.30	18.40	29.4	-0.24
A-16	OK	5/5/2016 12:33	0.00	0.10	18.90	29.4	-0.74
A-17	OK	5/5/2016 12:44	0.00	0.10	18.90	29.5	-0.52
A-18	OK	5/5/2016 12:46	0.00	0.10	18.90	29.5	-1.68
BLOWER A	N/A	5/5/2016 13:03	0.30	2.40	17.10	29.5	25.81
BLOWER B	N/A	5/5/2016 13:05	0.00	0.10	19.20	29.5	0.00

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Overcast, 53°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-07/20	OK	5/5/2016 13:53	0.00	0.10	19.10	29.4	-0.09
MW-07/40	OK	5/5/2016 13:54	0.00	0.10	19.20	29.4	-0.07
MW-07/60	OK	5/5/2016 13:56	0.00	0.10	19.30	29.4	-0.13
MW-08/20	OK	5/5/2016 13:58	0.00	0.30	19.10	29.4	-0.03
MW-08/40	OK	5/5/2016 14:00	0.00	0.10	19.40	29.4	-0.06
MW-08/60	OK	5/5/2016 14:01	0.00	0.10	19.50	29.4	-0.06
MW-11/20	OK	5/5/2016 13:46	0.00	0.10	18.80	29.4	-0.07
MW-11/40	OK	5/5/2016 13:48	0.00	0.10	18.90	29.4	-0.10
MW-11/60	OK	5/5/2016 13:50	0.00	0.10	19.00	29.4	-0.16
MW-13/20	OK	5/5/2016 14:03	0.00	0.20	19.40	29.4	-0.01

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Overcast, 53°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
B-04	OK	5/23/2016 11:02	0.00	0.00	18.50	29.7	-0.62
B-05	OK	5/23/2016 11:05	0.00	0.00	18.60	29.7	-1.04
B-06	OK	5/23/2016 11:12	0.10	0.00	18.60	29.7	-0.72
B-07	OK	5/23/2016 11:14	0.00	0.00	18.60	29.7	-2.75
B-08	OK	5/23/2016 11:19	0.00	0.00	18.70	29.7	-0.99
B-09	OK	5/23/2016 11:27	0.00	0.00	18.70	29.7	-6.02
B-10	OK	5/23/2016 11:28	0.00	0.00	18.80	29.7	-1.28
B-11	OK	5/23/2016 11:31	0.00	0.00	18.80	29.7	-2.17
B-12	OK	5/23/2016 11:32	0.00	0.00	18.80	29.7	-4.40
B-13	OK	5/23/2016 11:38	0.00	0.00	18.90	29.7	-38.96
B-14	OK	5/23/2016 11:41	0.00	0.00	18.90	29.7	-3.91
B-15	OK	5/23/2016 11:42	0.00	0.00	18.90	29.7	-9.72
BLOWER B	N/A	5/23/2016 11:24	0.00	0.50	18.30	29.7	0.02
BLOWER C	N/A	5/23/2016 12:02	0.70	2.50	16.20	29.8	3.09

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Overcast, 73°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-01/20	OK	5/23/2016 10:57	0.00	0.10	18.50	29.7	-0.19
MW-01/40	OK	5/23/2016 10:58	0.00	0.10	18.60	29.7	-0.17
MW-01/60	OK	5/23/2016 11:00	0.00	0.00	18.50	29.7	-0.18
MW-02/20	OK	5/23/2016 11:07	0.00	0.00	18.60	29.7	-0.14
MW-02/40	OK	5/23/2016 11:09	0.00	0.00	18.60	29.7	-0.24
MW-02/60	OK	5/23/2016 11:10	0.00	0.00	18.60	29.7	-0.21
MW-25/20	OK	5/23/2016 11:56	0.00	0.10	18.40	29.8	-0.18
MW-25/40	OK	5/23/2016 11:57	0.00	0.00	18.60	29.7	-0.19
MW-25/60	OK	5/23/2016 11:59	0.00	0.00	18.50	29.7	-0.55
MW-26/20	OK	5/23/2016 11:50	0.00	0.00	18.80	29.8	-0.23
MW-26/40	OK	5/23/2016 11:52	0.00	0.00	18.80	29.8	-0.30
MW-26/60	OK	5/23/2016 11:53	0.00	0.00	18.70	29.8	-0.09
MW-27/20	OK	5/23/2016 11:44	0.00	0.00	18.80	29.8	-0.08
MW-27/40	OK	5/23/2016 11:46	0.00	0.00	18.80	29.8	-0.29
MW-27/60	OK	5/23/2016 11:47	0.00	0.00	18.80	29.8	-0.26

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Overcast, 73°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
C-01	OK	5/23/2016 13:36	0.00	0.00	18.50	29.7	-1.51
C-02	OK	5/23/2016 13:34	0.00	1.50	16.70	29.7	-0.67
C-03	OK	5/23/2016 13:30	0.00	0.00	18.40	29.7	-1.15
C-04	OK	5/23/2016 13:28	0.00	0.00	18.40	29.7	-0.93
C-05	OK	5/23/2016 13:25	0.00	0.00	18.40	29.7	-1.06
C-06	OK	5/23/2016 13:22	0.00	0.00	18.40	29.7	-0.85
C-07	OK	5/23/2016 13:19	0.00	0.00	18.30	29.7	-1.12
C-08	OK	5/23/2016 13:16	0.00	0.00	18.40	29.7	-1.48
C-09	OK	5/23/2016 13:13	0.00	0.00	18.40	29.7	-0.65
C-10	OK	5/23/2016 13:10	0.00	0.00	18.40	29.7	-2.28
C-11	OK	5/23/2016 13:08	0.00	0.10	18.20	29.7	-1.92
C-12	OK	5/23/2016 13:05	0.00	0.20	18.20	29.7	-1.55
C-13	OK	5/23/2016 13:02	0.00	0.00	18.50	29.8	-0.72
C-14	OK	5/23/2016 12:59	0.00	0.00	18.50	29.8	-0.47
C-15	OK	5/23/2016 12:53	0.00	0.00	18.50	29.8	-1.15
C-16	OK	5/23/2016 12:51	0.00	0.00	18.50	29.8	-0.64
C-17	OK	5/23/2016 13:39	0.00	4.00	15.00	29.7	-1.41
BLOWER C	N/A	5/23/2016 12:02	0.70	2.50	16.20	29.8	3.09

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Overcast, 73°F

FPM

LANDFILL GAS MONITORING RESULTS

BLYDENBURGH ROAD LANDFILL

ISLIP, NEW YORK

Monitoring Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-19/20	OK	5/23/2016 14:05	0.00	0.30	18.10	29.7	-0.15
MW-19/40	OK	5/23/2016 14:06	0.00	0.20	18.20	29.7	-0.05
MW-19/60	OK	5/23/2016 14:08	0.00	0.20	18.30	29.7	-0.02
MW-23/20	OK	5/23/2016 13:57	0.00	0.30	18.00	29.7	0.00
MW-23/40	OK	5/23/2016 13:58	0.00	0.20	18.30	29.7	0.10
MW-23/60	OK	5/23/2016 13:59	0.00	0.10	18.30	29.7	0.13

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Overcast, 73°F

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-50	OK	5/23/2016 11:16	0.00	0.00	18.70	29.7	-0.08
MW-51	OK	5/5/2016 13:44	0.00	0.10	18.60	29.4	-0.20
MW-52	OK	5/5/2016 11:49	0.00	0.20	19.30	29.4	-0.06
MW-53	OK	5/5/2016 12:50	0.00	0.10	19.00	29.5	-0.03
MW-54	OK	5/5/2016 12:52	0.00	0.40	18.90	29.5	-0.05
MW-56	OK	5/23/2016 12:47	0.00	0.00	18.50	29.8	-0.08
MW-57	OK	5/23/2016 12:50	0.00	0.00	18.40	29.7	-0.06
MW-58	OK	5/23/2016 14:20	0.00	0.00	18.70	29.7	0.02
MW-59	OK	5/23/2016 12:57	0.00	0.00	18.50	29.8	0.01
MW-60	OK	5/23/2016 13:01	0.00	0.00	18.50	29.7	-0.05
MW-61	OK	5/23/2016 13:06	0.00	0.00	18.50	29.7	-0.24
MW-62	OK	5/23/2016 14:13	0.00	0.00	18.50	29.7	-0.02
MW-63	OK	5/23/2016 14:12	0.00	0.00	18.50	29.7	-0.11
MW-64	OK	5/23/2016 13:26	0.00	0.00	18.30	29.7	-0.16
MW-65	OK	5/23/2016 13:31	0.00	0.00	18.40	29.7	-0.09

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather: 5/5/2016 - Overcast, 53°F 5/23/2016 - Overcast, 73°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - Closed MSW Landfill

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure	Well Head Vacuum
MSW-01	*	NS	NS	NS	NS	NS	NS	NS
MSW-03	OK	5/10/2016 10:37	20.00	28.40	1.80	29.9	-0.26	-0.20
MSW-04	OK	5/10/2016 10:42	6.50	19.40	5.90	29.9	-0.42	-0.27
MSW-05	OK	5/10/2016 10:47	11.80	20.30	7.10	29.9	-0.38	-0.34
MSW-06	OK	5/10/2016 10:53	17.30	27.80	5.90	29.9	-0.34	-0.30
MSW-07	OK	5/10/2016 10:58	17.30	27.70	5.90	29.9	-0.35	-0.54
MSW-09	OK	5/10/2016 11:02	13.80	18.20	9.90	29.9	-0.53	-0.83
MSW-10	OK	5/10/2016 11:09	44.70	54.50	0.70	29.9	-0.41	-
MSW-11	OK	5/10/2016 11:16	37.60	46.30	0.30	29.9	-0.92	-1.58
MSW-12	OK	5/10/2016 11:23	32.30	42.90	0.30	29.9	-1.55	-1.85
MSW-13	OK	5/10/2016 11:33	44.30	59.30	0.40	29.9	-0.39	-
MSW-14	OK	5/10/2016 11:36	44.60	59.80	0.30	29.9	1.66	-
MSW-15	OK	5/10/2016 11:41	15.50	13.00	13.90	29.9	-0.93	-2.83
MSW-16	OK	5/10/2016 11:43	24.50	37.30	0.30	29.9	-2.23	-2.72
MSW-17	OK	5/10/2016 10:41	24.40	39.40	1.00	29.9	-0.45	-
MSW-18	OK	5/10/2016 11:51	30.50	41.00	0.50	29.9	-1.48	-
MSW-19	OK	5/10/2016 11:48	44.40	53.60	1.80	29.92	-0.9	-0.92

Notes:

- = No well head vacuum sample port present.
CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
NS - Not Sampled
Weather - Overcast, 61°F

***MSW-01 - Well under repair**

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

CLOSED MSW LANDFILL

Location ID	Date	Time	CH_4	CO_2	O_2	Temp.	Well Head Pressure	Atmospheric Pressure	Valve Position
N. Valve Structure									
V-200	5/23/2016	10:20	29.20	30.30	4.20	82	-3.21	29.7	1/2 open
V-203		10:22	3.80	10.60	9.10	80	-3.24	29.7	1/4 open
Dog House									
Phase IV Vertical	5/23/2016	10:27	25.60	34.50	1.40	82	-5.25	29.7	open
Phase II Horizontal		10:29	0.00	5.60	12.80	88	-0.62	29.7	closed
Small Dog House	5/23/2016								
Phase II Horizontal		10:31	6.60	13.60	8.30	88	-4.35	29.7	1/2 open
Phase II Valve Pit									
E-Horizontal	5/23/2016	10:35	35.80	48.00	0.30	90	-6.05	29.7	1/2 open
W-Horizontal		10:38	26.70	41.70	0.20	88	-6.37	29.7	1/2 open
CF Phase II-Vertical**									NS
Flare Compound									
*MP-01 Gas Analyzer	5/23/2016	10:41	0.00	0.20	18.30	88	-9.21	29.7	N/A
CF Phase I**		NS	NS	NS	NS	NS	NS	NS	NS

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Temperature measured in degrees Farenheit.
Blower status - On
Weather - Overcast, 73°F
* = Analyzer combined
** = Offline
N/A = Not Applicable
NS = Not Sampled

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Location ID	Date	Location Description	VOCs
AMBIENT 1	5/23/2016	Northern portion of landfill property, just south of MW-26/40	0.0
AMBIENT 2	5/23/2016	Southern portion of landfill property, just north of MW-D4/40	0.0
AMBIENT 3	5/23/2016	Western portion of landfill property, just east of B-04	0.0
AMBIENT 4	5/23/2016	Eastern portion of landfill property, just west of C-04	0.0

Notes:

VOCs reported as parts per million, as measured by a calibrated photoionization detector.
Weather - Overcast, 73°F

FPM

FPM Group, Ltd.
FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

July 5, 2016

CORPORATE HEADQUARTERS
909 Marconi Avenue
Ronkonkoma, NY 11779
631/737-6200
Fax 631/737-2410

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

Re: **Blydenburgh Road Landfill**
June 2016 Landfill Gas and VOC Gas Monitoring Results
FPM File No. 631-16-29

Dear Mr. Varrichio:

On June 6, 13, and 21, 2016, FPM Group (FPM) performed landfill gas and volatile organic compound (VOC) gas monitoring at the above-referenced site. Monitoring of landfill gas was performed with a Landtec GEM 2000 Gas Analyzer. Monitoring for VOCs in ambient air was performed with a Photovac photoionization detector (PID), model 2020 Pro Plus. Ambient air VOC monitoring was conducted to address the provision for this measure in the Record of Decision (ROD) for this facility and was performed at four locations near the landfill perimeter, including one location downwind from the flare system.

For the Landtec GEM 2000 Gas Analyzer, oxygen (O_2) gas and methane (CH_4) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH_4 and 15% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. The Photovac PID was zeroed with ambient air prior to arrival at the landfill property, and calibrated with 100 parts per million (ppm) isobutylene prior to sampling in accordance with the manufacturer's recommendations.

The landfill gas monitoring results are provided in Tables 1 through 11 and the ambient air VOC monitoring results are provided in Table 12. CH_4 was not detected in any of the landfill monitoring wells this month and VOCs were not detected in the ambient air. An elevated level of O_2 was detected in wells MSW-04, MSW-13, and MSW-17. This issue is being addressed.

The next landfill gas monitoring event will begin on July 6, 2016. Jim Jahnke will be notified several days in advance of the sampling event.

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 242.

Sincerely,

Chris Linkletter

Chris Linkletter
Hydrogeologist

CL:tac
Attachments

cc: Jim Jahnke (via email)
Fazil Rahaman (via email)

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BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
A-01	OK	6/6/2016 11:17	0.00	0.30	17.90	29.4	-0.35
A-02	OK	6/6/2016 11:18	0.00	0.00	18.20	29.4	-0.51
A-03	OK	6/6/2016 11:20	0.00	0.00	18.20	29.4	-0.53
A-04	OK	6/6/2016 11:24	0.00	0.30	18.10	29.4	-0.47
A-05	OK	6/6/2016 11:26	0.00	0.00	18.30	29.4	-0.35
A-06	OK	6/6/2016 11:30	0.00	0.00	18.40	29.5	-1.60
A-07	OK	6/6/2016 11:31	0.00	0.00	18.40	29.5	-1.89
A-08	OK	6/6/2016 11:38	0.00	0.50	17.90	29.5	-1.09
A-09	OK	6/6/2016 11:40	0.00	0.00	18.50	29.4	-0.96
A-10	OK	6/6/2016 11:46	0.00	0.00	19.10	29.4	-0.72
A-11	OK	6/6/2016 11:48	0.00	0.00	18.50	29.5	-3.58
A-12	OK	6/6/2016 11:50	0.00	0.00	18.60	29.4	-0.44
A-13	OK	6/6/2016 11:52	0.00	0.00	18.60	29.4	-0.50
A-14	OK	6/6/2016 11:54	0.00	1.20	17.30	29.5	-0.36
A-15	OK	6/6/2016 11:56	0.00	1.50	17.00	29.5	-0.28
A-16	OK	6/6/2016 12:41	0.00	0.00	18.50	29.5	-0.81
A-17	OK	6/6/2016 12:43	0.00	0.00	18.60	29.5	-0.52
A-18	OK	6/6/2016 12:44	0.00	0.00	18.60	29.5	-1.71
BLOWER A	N/A	6/6/2016 12:55	0.50	2.50	15.90	29.5	25.18
BLOWER B	N/A	6/6/2016 12:56	0.00	0.30	18.20	29.5	0.00

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Overcast, 81°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-07/20	OK	6/6/2016 13:20	0.00	0.00	18.40	29.4	-0.07
MW-07/40	OK	6/6/2016 13:22	0.00	0.00	18.40	29.4	-0.06
MW-07/60	OK	6/6/2016 13:23	0.00	0.00	18.50	29.4	-0.10
MW-08/20	OK	6/6/2016 13:25	0.00	0.80	17.70	29.4	-0.04
MW-08/40	OK	6/6/2016 13:26	0.00	0.00	18.50	29.4	-0.08
MW-08/60	OK	6/6/2016 13:28	0.00	0.00	18.50	29.4	-0.10
MW-11/20	OK	6/6/2016 13:14	0.00	0.00	18.30	29.4	-0.04
MW-11/40	OK	6/6/2016 13:15	0.00	0.00	18.30	29.4	-0.07
MW-11/60	OK	6/6/2016 13:17	0.00	0.00	18.30	29.4	-0.06
MW-13/20	OK	6/6/2016 13:30	0.00	0.30	18.20	29.4	0.00

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Overcast, 81°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
B-04	OK	6/21/2016 10:05	0.00	0.10	18.20	29.6	-0.90
B-05	OK	6/21/2016 10:07	0.00	0.00	18.20	29.6	-1.09
B-06	OK	6/21/2016 10:14	0.00	0.00	18.20	29.6	-0.77
B-07	OK	6/21/2016 10:16	0.00	0.00	18.20	29.6	-2.72
B-08	OK	6/21/2016 10:20	0.00	0.10	18.20	29.6	-1.10
B-09	OK	6/21/2016 10:27	0.00	0.00	18.20	29.6	-5.69
B-10	OK	6/21/2016 10:28	0.00	0.00	18.20	29.6	-1.08
B-11	OK	6/21/2016 10:30	0.00	0.00	18.20	29.6	-1.93
B-12	OK	6/21/2016 10:40	0.00	0.00	18.30	29.6	-6.95
B-13	OK	6/21/2016 10:47	0.00	0.00	18.30	29.7	-35.96
B-14	OK	6/21/2016 10:56	0.00	0.00	18.30	29.7	-3.80
B-15	OK	6/21/2016 11:04	0.00	0.00	18.40	29.7	-9.27
BLOWER B	N/A	6/21/2016 10:25	0.00	0.30	18.00	29.6	0.02
BLOWER C	N/A	6/21/2016 10:42	0.70	2.70	15.80	29.7	3.14

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 84°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-01/20	OK	6/21/2016 10:00	0.00	0.10	18.20	29.6	-0.26
MW-01/40	OK	6/21/2016 10:02	0.00	0.10	18.20	29.6	-0.26
MW-01/60	OK	6/21/2016 10:04	0.00	0.10	18.20	29.6	-0.27
MW-02/20	OK	6/21/2016 10:09	0.00	0.00	18.20	29.6	-0.22
MW-02/40	OK	6/21/2016 10:10	0.00	0.00	18.20	29.6	-0.31
MW-02/60	OK	6/21/2016 10:12	0.00	0.00	18.20	29.6	-0.33
MW-25/20	OK	6/21/2016 10:49	0.00	0.20	17.90	29.7	-0.16
MW-25/40	OK	6/21/2016 10:51	0.00	0.00	18.30	29.7	-0.21
MW-25/60	OK	6/21/2016 10:53	0.00	0.20	17.90	29.7	-0.55
MW-26/20	OK	6/21/2016 10:58	0.00	0.00	18.30	29.7	-0.21
MW-26/40	OK	6/21/2016 11:00	0.00	0.00	18.30	29.7	-0.30
MW-26/60	OK	6/21/2016 11:02	0.00	0.00	18.30	29.7	-0.07
MW-27/20	OK	6/21/2016 11:07	0.00	0.00	18.30	29.7	-0.07
MW-27/40	OK	6/21/2016 11:08	0.00	0.00	18.40	29.7	-0.28
MW-27/60	OK	6/21/2016 11:10	0.00	0.00	18.40	29.7	-0.24

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 84°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
C-01	OK	6/21/2016 12:24	0.00	0.00	18.40	29.6	-1.36
C-02	OK	6/21/2016 12:22	0.00	0.30	18.10	29.6	-0.76
C-03	OK	6/21/2016 12:18	0.00	0.00	18.40	29.6	-1.45
C-04	OK	6/21/2016 12:14	0.00	0.00	18.40	29.6	-1.34
C-05	OK	6/21/2016 12:11	0.00	0.00	18.40	29.6	-1.33
C-06	OK	6/21/2016 12:09	0.00	0.00	18.40	29.6	-1.01
C-07	OK	6/21/2016 12:05	0.00	0.00	18.40	29.6	-1.24
C-08	OK	6/21/2016 12:04	0.00	0.00	18.40	29.6	-1.39
C-09	OK	6/21/2016 12:00	0.00	0.30	18.20	29.7	-0.65
C-10	OK	6/21/2016 11:59	0.00	0.00	18.30	29.7	-1.31
C-11	OK	6/21/2016 11:55	0.00	0.00	18.30	29.7	-2.55
C-12	OK	6/21/2016 11:51	0.00	0.20	18.20	29.7	-2.40
C-13	OK	6/21/2016 11:49	0.00	0.00	18.30	29.7	-1.01
C-14	OK	6/21/2016 11:45	0.00	0.00	18.30	29.7	-0.60
C-15	OK	6/21/2016 11:38	0.00	0.00	18.40	29.7	-1.04
C-16	OK	6/21/2016 11:36	0.00	0.00	18.40	29.7	-1.01
C-17	OK	6/21/2016 12:32	0.00	3.70	15.20	29.6	-1.90
BLOWER C	N/A	6/21/2016 10:42	0.70	2.70	15.80	29.7	3.14

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 84°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-19/20	OK	6/21/2016 12:53	0.00	0.30	18.00	29.6	-0.25
MW-19/40	OK	6/21/2016 12:55	0.00	0.20	18.20	29.6	-0.07
MW-19/60	OK	6/21/2016 12:56	0.00	0.30	18.20	29.6	-0.03
MW-23/20	OK	6/21/2016 12:46	0.00	0.40	17.90	29.6	0.00
MW-23/40	OK	6/21/2016 12:47	0.00	0.30	18.10	29.6	-0.02
MW-23/60	OK	6/21/2016 12:49	0.00	0.20	18.10	29.6	-0.03

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 84°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-50	OK	6/21/2016 10:18	0.00	0.00	18.20	29.6	-0.13
MW-51	OK	6/6/2016 13:12	0.00	0.00	18.20	29.5	-0.12
MW-52	OK	6/6/2016 11:44	0.00	0.20	18.40	29.4	-0.04
MW-53	OK	6/6/2016 12:49	0.00	0.00	18.50	29.5	-0.03
MW-54	OK	6/6/2016 12:52	0.00	0.40	18.00	29.5	-0.05
MW-56	OK	6/21/2016 11:29	0.00	0.00	18.50	29.7	-0.10
MW-57	OK	6/21/2016 11:34	0.00	0.00	18.40	29.7	-0.10
MW-58	OK	6/21/2016 13:04	0.00	0.00	18.60	29.6	0.00
MW-59	OK	6/21/2016 11:41	0.00	0.00	18.30	29.7	-0.01
MW-60	OK	6/21/2016 11:47	0.00	0.00	18.30	29.7	-0.14
MW-61	OK	6/21/2016 11:53	0.00	0.00	18.30	29.7	-0.36
MW-62	OK	6/21/2016 13:00	0.00	0.00	18.70	29.6	-0.01
MW-63	OK	6/21/2016 12:59	0.00	0.00	18.60	29.6	0.00
MW-64	OK	6/21/2016 12:13	0.00	0.00	18.40	29.6	-0.29
MW-65	OK	6/21/2016 12:20	0.00	0.00	18.40	29.6	-0.12

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather: 6/6/2016 - Overcast, 81°F 6/21/2016 - Partly Cloudy, 84°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - Closed MSW Landfill

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure	Well Head Vacuum
MSW-01	*	NS	NS	NS	NS	NS	NS	NS
MSW-03	OK	6/13/2016 10:25	26.40	31.50	1.10	29.5	-0.62	-3.50
MSW-04	OK	6/13/2016 10:31	13.50	25.50	3.40	29.6	-3.27	-4.07
MSW-05	OK	6/13/2016 10:34	42.40	49.70	0.30	29.5	-2.07	-3.27
MSW-06	OK	6/13/2016 10:38	24.90	36.10	0.30	29.5	-1.85	-2.41
MSW-07	OK	6/13/2016 10:42	17.50	16.50	2.30	29.5	-1.39	-2.39
MSW-09	OK	6/13/2016 10:46	20.20	33.60	0.90	29.5	-1.54	-2.21
MSW-10	OK	6/13/2016 10:51	43.90	55.60	0.40	29.5	-1.28	-
MSW-11	OK	6/13/2016 10:55	28.50	40.70	0.30	29.5	-2.05	-2.45
MSW-12	OK	6/13/2016 11:00	29.50	41.30	0.20	29.5	-1.94	-2.26
MSW-13	OK	6/13/2016 11:07	45.00	56.00	3.40	29.5	-0.66	-
MSW-14	OK	6/13/2016 11:11	43.30	59.60	0.30	29.5	2.05	-
MSW-15	OK	6/13/2016 11:13	42.50	57.70	1.00	29.5	-1.22	-2.74
MSW-16	OK	6/13/2016 11:17	24.90	37.70	0.30	29.5	-2.42	-3.15
MSW-17	OK	6/13/2016 10:29	24.00	34.30	3.90	29.5	-0.96	-
MSW-18	OK	6/13/2016 11:26	38.90	47.10	0.50	29.5	-1.37	-
MSW-19	OK	6/13/2016 11:20	43.80	54.20	1.90	29.5	-1.10	-1.12

Notes:

- = No well head vacuum sample port present.
CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
NS - Not Sampled
Weather - Partly Cloudy, 76°F

***MSW-01 - Well under repair**

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

CLOSED MSW LANDFILL

Location ID	Date	Time	CH_4	CO_2	O_2	Temp.	Well Head Pressure	Atmospheric Pressure	Valve Position
N. Valve Structure									
V-200	6/21/2016	9:18	31.70	33.30	4.10	90	-3.19	29.6	1/2 open
V-203		9:20	4.50	11.60	8.70	90	-3.64	29.6	1/4 open
Dog House									
Phase IV Vertical	6/21/2016	9:25	26.70	34.60	1.90	96	-5.18	29.6	open
Phase II Horizontal		9:27	0.00	7.80	11.70	98	-0.72	29.6	closed
Small Dog House	6/21/2016								
Phase II Horizontal		9:37	7.90	15.50	7.40	98	-4.23	29.6	1/2 open
Phase II Valve Pit									
E-Horizontal	6/21/2016	9:31	36.60	49.80	0.30	92	-5.81	29.6	1/2 open
W-Horizontal		9:33	28.10	43.30	0.30	90	-5.94	29.6	1/2 open
CF Phase II-Vertical**									NS
Flare Compound									
*MP-01 Gas Analyzer	6/21/2016	9:42	0.00	0.10	17.80	92	-8.79	29.6	N/A
CF Phase I**		NS	NS	NS	NS	NS	NS	NS	NS

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Temperature measured in degrees Farenheit.
Blower status - On
Weather - Partly Cloudy, 84°F
* = Analyzer combined
** = Offline
N/A = Not Applicable
NS = Not Sampled

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Location ID	Date	Location Description	VOCs
AMBIENT 1	6/21/2016	Northeastern portion of landfill property, just west of well C-13	0.0
AMBIENT 2	6/21/2016	Southeastern portion of landfill property, just west of well MW-D10	0.0
AMBIENT 3	6/21/2016	Northwestern portion of landfill property, just southeast of well A-17	0.0
AMBIENT 4	6/21/2016	Southwestern portion of landfill property, just east of well MW-2C	0.0

Notes:

VOCs reported as parts per million, as measured by a calibrated photoionization detector.
Weather - Partly Cloudy, 84°F

PART III

BLYDENBURGH ROAD M.S.W. LANDFILL

AND FORMER

ASH MONOFILL GAS MONITORING

REPORTS FROM

JULY 2016 THROUGH DECEMBER 2016

PREPARED BY F.P.M. GROUP

FPM Group, Ltd.
FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

August 3, 2016

CORPORATE HEADQUARTERS
909 Marconi Avenue
Ronkonkoma, NY 11779
631/737-6200
Fax 631/737-2410

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

Re: **Blydenburgh Road Landfill**
July 2016 Landfill Gas and VOC Gas Monitoring Results
FPM File No. 631-16-29

Dear Mr. Varrichio:

On July 6, 13, and 20, 2016, FPM Group (FPM) performed landfill gas and volatile organic compound (VOC) gas monitoring at the above-referenced site. Monitoring of landfill gas was performed with a Landtec GEM 2000 Gas Analyzer. Monitoring for VOCs in ambient air was performed with a Photovac photoionization detector (PID), model 2020 Pro Plus. Ambient air VOC monitoring was conducted to address the provision for this measure in the Record of Decision (ROD) for this facility and was performed at four locations near the landfill perimeter, including one location downwind from the flare system.

For the Landtec GEM 2000 Gas Analyzer, oxygen (O_2) gas and methane (CH_4) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH_4 and 15% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. The Photovac PID was zeroed with ambient air prior to arrival at the landfill property, and calibrated with 100 parts per million (ppm) isobutylene prior to sampling in accordance with the manufacturer's recommendations.

The landfill gas monitoring results are provided in Tables 1 through 11 and the ambient air VOC monitoring results are provided in Table 12. CH_4 was not detected in any of the landfill monitoring wells this month and VOCs were not detected in the ambient air. An elevated level of O_2 was detected in well MSW-04. This issue is being addressed.

The next landfill gas monitoring event will begin on August 5, 2016. Jim Jahnke will be notified several days in advance of the sampling event.

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 242.

Sincerely,

Chris Linkletter
Hydrogeologist

CL:tac
Attachments

cc: Jim Jahnke (via email)
Fazil Rahaman (via email)

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BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
A-01	OK	7/6/2016 11:03	0.00	0.20	17.50	29.6	-0.35
A-02	OK	7/6/2016 11:05	0.00	0.00	17.80	29.6	-0.46
A-03	OK	7/6/2016 11:10	0.00	0.00	17.90	29.6	-0.57
A-04	OK	7/6/2016 11:12	0.00	0.20	17.80	29.6	-0.44
A-05	OK	7/6/2016 11:15	0.00	0.00	18.00	29.6	-0.36
A-06	OK	7/6/2016 11:20	0.00	0.00	17.90	29.6	-1.54
A-07	OK	7/6/2016 11:21	0.00	0.00	17.90	29.6	-0.39
A-08	OK	7/6/2016 11:26	0.00	0.00	17.90	29.6	-0.93
A-09	OK	7/6/2016 11:29	0.00	0.00	17.90	29.6	-0.87
A-10	OK	7/6/2016 11:31	0.00	0.30	17.80	29.6	-0.62
A-11	OK	7/6/2016 11:38	0.00	0.00	18.00	29.7	-3.61
A-12	OK	7/6/2016 11:40	0.00	0.00	18.10	29.6	-0.45
A-13	OK	7/6/2016 11:43	0.00	0.00	18.00	29.6	-0.49
A-14	OK	7/6/2016 11:47	0.00	1.10	16.90	29.6	-0.38
A-15	OK	7/6/2016 11:49	0.00	1.40	16.40	29.6	-0.31
A-16	OK	7/6/2016 12:23	0.00	0.00	16.40	29.6	-0.83
A-17	OK	7/6/2016 12:25	0.00	0.00	16.40	29.7	-0.53
A-18	OK	7/6/2016 12:27	0.00	0.00	16.20	29.7	-1.53
BLOWER A	N/A	7/6/2016 12:43	0.00	1.90	13.80	29.7	25.14
BLOWER B	N/A	7/6/2016 12:44	0.00	0.10	15.40	29.7	-0.02

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Scattered Clouds, 88°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-07/20	OK	7/6/2016 13:09	0.00	0.00	16.40	29.6	-0.13
MW-07/40	OK	7/6/2016 13:11	0.00	0.00	16.40	29.6	-0.22
MW-07/60	OK	7/6/2016 13:13	0.00	0.00	16.50	29.6	-0.25
MW-08/20	OK	7/6/2016 13:15	0.00	0.00	16.60	29.6	-0.11
MW-08/40	OK	7/6/2016 13:16	0.00	0.00	16.80	29.6	-0.15
MW-08/60	OK	7/6/2016 13:17	0.00	0.00	16.80	29.6	-0.16
MW-11/20	OK	7/6/2016 13:02	0.00	0.00	16.00	29.6	-0.08
MW-11/40	OK	7/6/2016 13:04	0.00	0.00	15.90	29.6	-0.14
MW-11/60	OK	7/6/2016 13:06	0.00	0.00	16.00	29.6	-0.15
MW-13/20	OK	7/6/2016 13:19	0.00	0.10	16.60	29.6	-0.02

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Scattered Clouds, 88°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
B-04	OK	7/20/2016 10:20	0.00	0.10	18.60	30.0	-0.88
B-05	OK	7/20/2016 10:21	0.00	0.10	18.60	30.0	-0.16
B-06	OK	7/20/2016 10:28	0.00	0.10	18.50	30.0	-0.67
B-07	OK	7/20/2016 10:30	0.00	0.10	18.40	30.0	-2.59
B-08	OK	7/20/2016 10:33	0.00	0.10	18.40	30.0	-0.81
B-09	OK	7/20/2016 10:40	0.00	0.10	18.30	30.0	-3.91
B-10	OK	7/20/2016 10:42	0.00	0.10	18.30	30.1	-0.76
B-11	OK	7/20/2016 10:45	0.00	0.40	18.10	30.1	-1.27
B-12	OK	7/20/2016 10:47	0.00	0.10	18.30	30.1	-5.45
B-13	OK	7/20/2016 10:48	0.00	0.10	18.40	30.1	-20.03
B-14	OK	7/20/2016 10:50	0.00	0.20	18.20	30.1	-2.85
B-15	OK	7/20/2016 10:53	0.00	0.10	18.40	30.1	-6.86
BLOWER B	N/A	7/20/2016 10:38	0.00	0.30	18.10	30.0	0.03
BLOWER C	N/A	7/20/2016 11:18	0.60	3.20	15.60	30.1	5.11

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Scattered Clouds, 82°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-01/20	OK	7/20/2016 10:15	0.00	0.10	18.70	30.0	-0.27
MW-01/40	OK	7/20/2016 10:17	0.00	0.10	18.70	30.0	-0.21
MW-01/60	OK	7/20/2016 10:18	0.00	0.10	18.70	30.0	-0.23
MW-02/20	OK	7/20/2016 10:23	0.00	0.10	18.50	30.0	-0.16
MW-02/40	OK	7/20/2016 10:25	0.00	0.10	18.50	30.0	-0.24
MW-02/60	OK	7/20/2016 10:26	0.00	0.10	18.50	30.0	-0.23
MW-25/20	OK	7/20/2016 11:11	0.00	0.20	18.20	30.1	-0.08
MW-25/40	OK	7/20/2016 11:13	0.00	0.00	18.50	30.1	-0.11
MW-25/60	OK	7/20/2016 11:15	0.00	0.20	18.10	30.1	-0.27
MW-26/20	OK	7/20/2016 11:06	0.00	0.00	18.50	30.1	-0.11
MW-26/40	OK	7/20/2016 11:08	0.00	0.00	18.50	30.1	-0.16
MW-26/60	OK	7/20/2016 11:10	0.00	0.00	18.50	30.1	-0.01
MW-27/20	OK	7/20/2016 11:00	0.00	0.00	18.30	30.1	-0.01
MW-27/40	OK	7/20/2016 11:02	0.00	0.00	18.40	30.1	-0.19
MW-27/60	OK	7/20/2016 11:03	0.00	0.00	18.40	30.1	-0.17

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Scattered Clouds, 82°F

FPM

LANDFILL GAS MONITORING RESULTS

BLYDENBURGH ROAD LANDFILL

ISLIP, NEW YORK

Extraction Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
C-01	OK	7/20/2016 13:13	0.00	0.00	18.60	30.0	-3.88
C-02	OK	7/20/2016 13:11	0.00	0.00	18.60	30.0	-1.42
C-03	OK	7/20/2016 13:07	0.00	0.00	18.60	30.0	-3.16
C-04	OK	7/20/2016 13:05	0.00	0.00	18.60	30.0	-3.00
C-05	OK	7/20/2016 13:01	0.00	0.00	18.60	30.0	-2.30
C-06	OK	7/20/2016 12:59	0.00	0.00	18.60	30.0	-2.05
C-07	OK	7/20/2016 12:57	0.00	0.00	18.50	30.0	-2.82
C-08	OK	7/20/2016 12:54	0.00	0.00	18.50	30.0	-3.34
C-09	OK	7/20/2016 12:51	0.00	0.00	18.50	30.0	-1.92
C-10	OK	7/20/2016 12:49	0.00	0.00	18.50	30.1	-5.17
C-11	OK	7/20/2016 12:47	0.00	0.00	18.60	30.1	-5.34
C-12	OK	7/20/2016 12:43	0.00	0.00	18.60	30.1	-4.33
C-13	OK	7/20/2016 12:41	0.00	0.00	18.70	30.1	-1.91
C-14	OK	7/20/2016 12:37	0.00	0.00	18.70	30.1	-1.15
C-15	OK	7/20/2016 12:33	0.00	0.00	18.80	30.1	-2.56
C-16	OK	7/20/2016 12:32	0.00	0.00	18.80	30.1	-1.68
C-17	OK	7/20/2016 13:16	0.00	2.60	16.50	30.0	-4.40
BLOWER C	N/A	7/20/2016 11:18	0.60	3.20	15.60	30.1	5.11

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Scattered Clouds, 82°F

FPM

LANDFILL GAS MONITORING RESULTS

BLYDENBURGH ROAD LANDFILL

ISLIP, NEW YORK

Monitoring Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-19/20	OK	7/20/2016 13:53	0.00	0.30	18.00	30.0	-0.41
MW-19/40	OK	7/20/2016 13:54	0.00	0.30	18.20	30.0	-0.10
MW-19/60	OK	7/20/2016 13:56	0.00	0.30	18.10	30.0	-0.05
MW-23/20	OK	7/20/2016 13:45	0.00	0.10	18.20	30.0	-0.01
MW-23/40	OK	7/20/2016 13:46	0.00	0.10	18.20	30.0	0.02
MW-23/60	OK	7/20/2016 13:48	0.00	0.10	18.30	30.0	0.03

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Scattered Clouds, 82°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-50	OK	7/20/2016 10:32	0.00	0.10	18.40	30.0	-0.11
MW-51	OK	7/6/2016 13:00	0.00	0.00	15.90	29.7	-0.20
MW-52	OK	7/6/2016 11:33	0.00	0.10	17.90	29.6	-0.06
MW-53	OK	7/6/2016 12:37	0.00	0.00	15.40	29.7	-0.07
MW-54	OK	7/6/2016 12:39	0.00	0.40	15.00	29.7	-0.08
MW-56	OK	7/20/2016 12:26	0.00	0.00	18.90	30.1	-0.04
MW-57	OK	7/20/2016 12:29	0.00	0.00	18.80	30.1	-0.11
MW-58	OK	7/20/2016 14:15	0.00	0.20	18.20	30.0	-0.01
MW-59	OK	7/20/2016 12:35	0.00	0.00	18.70	30.1	-0.02
MW-60	OK	7/20/2016 12:39	0.00	0.00	18.70	30.1	-0.29
MW-61	OK	7/20/2016 12:44	0.00	0.00	18.60	30.1	-0.69
MW-62	OK	7/20/2016 14:01	0.00	0.00	18.60	30.0	-0.16
MW-63	OK	7/20/2016 13:59	0.00	0.00	18.60	30.0	-0.43
MW-64	OK	7/20/2016 13:03	0.00	0.00	18.60	30.0	-0.55
MW-65	OK	7/20/2016 13:09	0.00	0.00	18.60	30.0	-0.24

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather: 7/6/2016 - Scattered Clouds, 88°F 7/20/2016 - Scattered Clouds, 82°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - Closed MSW Landfill

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure	Well Head Vacuum
MSW-01	*	NS	NS	NS	NS	NS	NS	NS
MSW-03	OK	7/13/2016 11:00	22.80	31.00	1.40	29.8	-0.60	-4.61
MSW-04	OK	7/13/2016 11:06	11.10	24.90	3.50	29.8	-4.00	-5.25
MSW-05	OK	7/13/2016 11:10	38.10	49.50	0.30	29.8	-2.44	-3.73
MSW-06	OK	7/13/2016 11:13	23.10	35.90	0.30	29.8	-2.16	-3.29
MSW-07	OK	7/13/2016 11:17	15.80	16.20	2.20	29.8	-1.81	-3.19
MSW-09	OK	7/13/2016 11:20	16.50	30.10	2.60	29.8	-1.94	-2.89
MSW-10	OK	7/13/2016 11:24	45.20	54.00	0.60	29.8	-1.56	-
MSW-11	OK	7/13/2016 11:29	24.50	39.50	0.40	29.8	-2.73	-3.17
MSW-12	OK	7/13/2016 11:33	25.80	40.30	0.30	29.8	-2.74	-3.15
MSW-13	OK	7/13/2016 11:36	41.70	57.80	0.60	29.8	-0.97	-
MSW-14	OK	7/13/2016 11:39	42.70	58.70	0.60	29.8	1.85	-
MSW-15	OK	7/13/2016 11:41	43.70	55.60	0.60	29.8	-1.71	-4.00
MSW-16	OK	7/13/2016 11:45	21.00	36.20	0.30	29.8	-3.02	-4.10
MSW-17	OK	7/13/2016 11:04	22.40	37.40	2.00	29.8	-1.02	-
MSW-18	OK	7/13/2016 11:56	30.90	43.20	0.50	29.8	-2.25	-
MSW-19	OK	7/13/2016 11:52	42.30	57.10	0.80	29.8	-1.65	-1.50

Notes:

- = No well head vacuum sample port present.
CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
NS - Not Sampled
Weather - Partly Cloudy, 81°F

***MSW-01 - Well under repair**

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

CLOSED MSW LANDFILL

Location ID	Date	Time	CH_4	CO_2	O_2	Temp.	Well Head Pressure	Atmospheric Pressure	Valve Position
N. Valve Structure	7/13/2016								
V-200		9:48	40.50	43.50	1.80	92	-3.21	29.9	1/2 open
V-203		9:51	3.40	12.00	8.90	90	-3.74	29.9	1/4 open
Dog House	7/13/2016								
Phase IV Vertical		9:55	22.90	34.00	1.60	90	-5.90	29.9	open
Phase II Horizontal		9:57	0.00	7.00	13.00	92	-0.81	29.8	closed
Small Dog House	7/13/2016								
Phase II Horizontal		9:59	3.90	11.10	10.10	94	-5.82	29.8	1/2 open
Phase II Valve Pit	7/13/2016								
E-Horizontal		10:02	31.60	48.10	0.40	96	-7.45	29.8	1/2 open
W-Horizontal		10:04	24.10	41.90	0.30	90	-7.64	29.9	1/2 open
CF Phase II-Vertical**									NS
Flare Compound	7/13/2016								
*MP-01 Gas Analyzer		10:08	0.00	0.10	17.80	92	-11.57	29.9	N/A
CF Phase I**		NS	NS	NS	NS	NS	NS	NS	NS

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Temperature measured in degrees Farenheit.
Blower status - On
Weather - Partly Cloudy, 81°F
* = Analyzer combined
** = Offline
N/A = Not Applicable
NS = Not Sampled

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Location ID	Date	Location Description	VOCs
AMBIENT 1	7/20/2016	Northern portion of landfill property, just south of well MW-26/40	0.0
AMBIENT 2	7/20/2016	Southern portion of landfill property, just north of MW-D4/40	0.0
AMBIENT 3	7/20/2016	Western portion of landfill property, just east of B-04	0.0
AMBIENT 4	7/20/2016	Eastern portion of landfill property, just west of C-04	0.0

Notes:

VOCs reported as parts per million, as measured by a calibrated photoionization detector.
Weather - Scattered Clouds, 82°F

FPM

FPM Group, Ltd.
FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

September 2, 2016

CORPORATE HEADQUARTERS
909 Marconi Avenue
Ronkonkoma, NY 11779
631/737-6200
Fax 631/737-2410

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

Re: **Blydenburgh Road Landfill**
August 2016 Landfill Gas and VOC Gas Monitoring Results
FPM File No. 631-16-29

Dear Mr. Varrichio:

On August 5, 8, and 26, 2016, FPM Group (FPM) performed landfill gas and volatile organic compound (VOC) gas monitoring at the above-referenced site. Monitoring of landfill gas was performed with a Landtec GEM 2000 Gas Analyzer. Monitoring for VOCs in ambient air was performed with a Photovac photoionization detector (PID), model 2020 Pro Plus. Ambient air VOC monitoring was conducted to address the provision for this measure in the Record of Decision (ROD) for this facility and was performed at four locations near the landfill perimeter, including one location downwind from the flare system.

For the Landtec GEM 2000 Gas Analyzer, oxygen (O_2) gas and methane (CH_4) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH_4 and 15% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. The Photovac PID was zeroed with ambient air prior to arrival at the landfill property, and calibrated with 100 parts per million (ppm) isobutylene prior to sampling in accordance with the manufacturer's recommendations.

The landfill gas monitoring results are provided in Tables 1 through 11 and the ambient air VOC monitoring results are provided in Table 12. CH_4 was not detected in any of the landfill monitoring wells this month and VOCs were not detected in the ambient air. An elevated level of O_2 was detected in wells MSW-04 and MSW-09. This issue is being addressed.

The next landfill gas monitoring event will begin on September 9, 2016. Jim Jahnke will be notified several days in advance of the sampling event.

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 242.

Sincerely,

Chris Linkletter
Hydrogeologist

CL:tac
Attachments

cc: Jim Jahnke (via email)
Fazil Rahaman (via email)

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BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
A-01	OK	8/5/2016 11:15	0.00	0.40	17.70	29.8	-0.36
A-02	OK	8/5/2016 11:17	0.00	0.00	18.10	29.8	-0.62
A-03	OK	8/5/2016 11:19	0.00	0.00	18.10	29.8	-0.62
A-04	OK	8/5/2016 11:21	0.00	0.20	18.00	29.8	-0.50
A-05	OK	8/5/2016 11:24	0.00	0.00	18.10	29.8	-0.39
A-06	OK	8/5/2016 11:28	0.00	0.00	18.20	29.8	-1.91
A-07	OK	8/5/2016 11:30	0.00	0.00	18.20	29.8	-0.45
A-08	OK	8/5/2016 11:32	0.00	0.00	18.30	29.8	-1.08
A-09	OK	8/5/2016 11:34	0.00	0.00	18.30	29.8	-1.08
A-10	OK	8/5/2016 11:37	0.00	0.00	18.30	29.8	-0.82
A-11	OK	8/5/2016 11:42	0.00	0.00	18.30	29.8	-5.79
A-12	OK	8/5/2016 11:44	0.00	0.00	18.30	29.8	-0.58
A-13	OK	8/5/2016 11:47	0.00	0.00	18.30	29.8	-0.58
A-14	OK	8/5/2016 11:51	0.00	1.20	17.20	29.8	-0.42
A-15	OK	8/5/2016 11:54	0.00	0.50	17.80	29.8	-0.35
A-16	OK	8/5/2016 12:32	0.00	0.00	18.10	29.8	-1.02
A-17	OK	8/5/2016 12:34	0.00	0.00	18.10	29.8	-0.53
A-18	OK	8/5/2016 12:36	0.00	0.00	18.10	29.8	-1.89
BLOWER A	N/A	8/5/2016 12:59	0.00	0.00	18.10	29.8	0.00
BLOWER B	N/A	8/5/2016 13:01	0.20	2.10	16.00	29.8	9.20

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Scattered Clouds, 82°F

FPM

LANDFILL GAS MONITORING RESULTS

BLYDENBURGH ROAD LANDFILL

ISLIP, NEW YORK

Monitoring Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-07/20	OK	8/5/2016 13:28	0.00	0.00	18.30	29.8	-0.11
MW-07/40	OK	8/5/2016 13:29	0.00	0.00	18.30	29.7	-0.17
MW-07/60	OK	8/5/2016 13:31	0.00	0.00	18.40	29.8	-0.22
MW-08/20	OK	8/5/2016 13:33	0.00	0.00	18.20	29.8	-0.10
MW-08/40	OK	8/5/2016 13:35	0.00	0.00	18.40	29.8	-0.13
MW-08/60	OK	8/5/2016 13:36	0.00	0.00	18.40	29.8	-0.16
MW-11/20	OK	8/5/2016 13:22	0.00	0.00	18.20	29.8	-0.08
MW-11/40	OK	8/5/2016 13:23	0.00	0.00	18.00	29.8	-0.11
MW-11/60	OK	8/5/2016 13:25	0.00	0.00	18.10	29.8	-0.15
MW-13/20	OK	8/5/2016 13:38	0.00	0.30	18.10	29.8	-0.04

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Scattered Clouds, 82°F

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
B-04	OK	8/26/2016 10:29	0.00	0.10	18.00	29.7	-0.68
B-05	OK	8/26/2016 10:32	0.00	0.10	18.00	29.7	-0.81
B-06	OK	8/26/2016 10:39	0.00	0.10	18.00	29.7	-0.58
B-07	OK	8/26/2016 10:42	0.00	0.00	18.00	29.7	-2.49
B-08	OK	8/26/2016 10:45	0.00	0.00	18.00	29.7	-0.83
B-09	OK	8/26/2016 10:54	0.00	0.00	18.10	29.8	-3.12
B-10	OK	8/26/2016 10:57	0.00	0.00	18.10	29.8	-0.69
B-11	OK	8/26/2016 10:59	0.00	0.30	18.10	29.8	-0.81
B-12	OK	8/26/2016 11:01	0.00	0.00	18.10	29.8	-5.05
B-13	OK	8/26/2016 11:05	0.00	0.00	18.10	29.8	-17.87
B-14	OK	8/26/2016 11:06	0.00	0.00	18.10	29.8	-2.62
B-15	OK	8/26/2016 11:08	0.00	0.00	18.10	29.8	-6.79
BLOWER B	N/A	8/26/2016 10:48	0.00	0.10	18.00	29.7	0.02
BLOWER C	N/A	8/26/2016 11:02	0.60	3.50	15.20	29.8	5.31

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Scattered Clouds, 92°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-01/20	OK	8/26/2016 10:24	0.00	0.10	18.00	29.8	-0.15
MW-01/40	OK	8/26/2016 10:25	0.00	0.10	18.00	29.7	-0.11
MW-01/60	OK	8/26/2016 10:27	0.00	0.10	18.00	29.7	-0.13
MW-02/20	OK	8/26/2016 10:33	0.00	0.10	18.00	29.7	-0.11
MW-02/40	OK	8/26/2016 10:34	0.00	0.10	18.00	29.7	-0.16
MW-02/60	OK	8/26/2016 10:36	0.00	0.10	18.00	29.7	-0.16
MW-25/20	OK	8/26/2016 11:42	0.00	0.10	17.90	29.8	-0.07
MW-25/40	OK	8/26/2016 11:44	0.00	0.00	18.20	29.8	-0.11
MW-25/60	OK	8/26/2016 11:46	0.00	0.00	17.90	29.8	-0.24
MW-26/20	OK	8/26/2016 11:34	0.00	0.00	18.10	29.8	-0.11
MW-26/40	OK	8/26/2016 11:36	0.00	0.00	18.10	29.8	-0.14
MW-26/60	OK	8/26/2016 11:38	0.00	0.00	18.10	29.8	0.00
MW-27/20	OK	8/26/2016 11:27	0.00	0.00	18.10	29.8	-0.02
MW-27/40	OK	8/26/2016 11:29	0.00	0.00	18.10	29.8	-0.15
MW-27/60	OK	8/26/2016 11:31	0.00	0.00	18.10	29.8	-0.11

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Scattered Clouds, 92°F

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
C-01	OK	8/26/2016 13:16	0.00	0.00	18.10	29.8	-3.78
C-02	OK	8/26/2016 13:14	0.00	0.00	18.10	29.8	-1.40
C-03	OK	8/26/2016 13:10	0.00	0.00	18.10	29.8	-3.02
C-04	OK	8/26/2016 13:06	0.00	0.00	18.10	29.8	-2.81
C-05	OK	8/26/2016 13:02	0.00	0.00	18.10	29.8	-2.40
C-06	OK	8/26/2016 12:59	0.00	0.00	18.20	29.8	-2.33
C-07	OK	8/26/2016 12:57	0.00	0.00	18.20	29.8	-2.85
C-08	OK	8/26/2016 12:54	0.00	0.00	18.20	29.8	-3.28
C-09	OK	8/26/2016 12:52	0.00	0.00	18.20	29.8	-1.91
C-10	OK	8/26/2016 12:50	0.00	0.00	18.20	29.8	-4.95
C-11	OK	8/26/2016 12:48	0.00	0.00	18.20	29.8	-5.36
C-12	OK	8/26/2016 12:45	0.00	0.00	18.20	29.8	-4.08
C-13	OK	8/26/2016 12:43	0.00	0.00	18.10	29.8	-1.65
C-14	OK	8/26/2016 12:39	0.00	0.00	18.10	29.8	-0.75
C-15	OK	8/26/2016 12:34	0.00	0.00	18.10	29.8	-2.57
C-16	OK	8/26/2016 12:32	0.00	0.00	18.10	29.8	-1.62
C-17	OK	8/26/2016 13:20	0.00	3.30	15.30	29.8	-4.54
BLOWER C	N/A	8/26/2016 11:02	0.60	3.50	15.20	29.8	5.31

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Scattered Clouds, 92°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-19/20	OK	8/26/2016 13:52	0.00	0.20	17.10	29.8	-0.45
MW-19/40	OK	8/26/2016 13:54	0.00	0.40	17.00	29.8	-0.10
MW-19/60	OK	8/26/2016 13:55	0.00	0.20	17.20	29.8	-0.05
MW-23/20	OK	8/26/2016 13:45	0.00	0.10	17.40	29.8	-0.01
MW-23/40	OK	8/26/2016 13:46	0.00	0.10	17.40	29.8	-0.07
MW-23/60	OK	8/26/2016 13:48	0.00	0.00	17.50	29.8	-0.07

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Scattered Clouds, 92°F

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-50	OK	8/26/2016 10:43	0.00	0.00	18.00	29.7	-0.08
MW-51	OK	8/5/2016 13:18	0.00	0.00	17.90	29.8	-0.21
MW-52	OK	8/5/2016 11:38	0.00	0.10	18.30	29.8	-0.06
MW-53	OK	8/5/2016 12:39	0.00	0.00	18.10	29.8	-0.07
MW-54	OK	8/5/2016 12:42	0.00	0.30	17.70	29.8	-0.07
MW-56	OK	8/26/2016 12:17	0.00	0.00	18.20	29.8	-0.03
MW-57	OK	8/26/2016 12:21	0.00	0.00	18.20	29.8	-0.08
MW-58	OK	8/26/2016 14:12	0.00	0.00	17.60	29.8	-0.03
MW-59	OK	8/26/2016 12:36	0.00	0.00	18.10	29.8	-0.01
MW-60	OK	8/26/2016 12:41	0.00	0.00	18.10	29.8	-0.29
MW-61	OK	8/26/2016 12:46	0.00	0.00	18.10	29.8	-0.66
MW-62	OK	8/26/2016 14:01	0.00	0.00	17.60	29.8	-0.19
MW-63	OK	8/26/2016 13:59	0.00	0.00	17.70	29.8	-0.31
MW-64	OK	8/26/2016 13:04	0.00	0.00	18.10	29.8	-0.59
MW-65	OK	8/26/2016 13:11	0.00	0.00	18.10	29.8	-0.34

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather: 8/5/2016 - Scattered Clouds, 82°F 8/26/2016 - Scattered Clouds, 92°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - Closed MSW Landfill

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure	Well Head Vacuum
MSW-01	*	NS	NS	NS	NS	NS	NS	NS
MSW-03	OK	8/8/2016 11:01	23.20	31.00	1.20	29.8	-0.84	-3.62
MSW-04	OK	8/8/2016 11:06	11.80	24.50	3.50	29.8	-3.64	-4.30
MSW-05	OK	8/8/2016 11:10	38.30	49.40	0.30	29.8	-2.33	-3.32
MSW-06	OK	8/8/2016 11:15	22.20	35.90	0.20	29.8	-1.96	-2.62
MSW-07	OK	8/8/2016 11:18	15.80	17.10	2.10	29.8	-1.63	-2.85
MSW-09	OK	8/8/2016 11:23	14.00	26.50	3.70	29.8	-1.69	-2.45
MSW-10	OK	8/8/2016 11:29	45.50	53.40	0.90	29.8	-1.41	-
MSW-11	OK	8/8/2016 11:33	25.20	40.20	0.30	29.8	-2.44	-2.61
MSW-12	OK	8/8/2016 11:38	26.20	40.60	0.30	29.8	-2.25	-2.64
MSW-13	OK	8/8/2016 11:44	41.30	58.30	0.60	29.8	-0.85	-
MSW-14	OK	8/8/2016 11:47	44.30	59.20	0.30	29.8	1.62	-
MSW-15	OK	8/8/2016 11:59	44.10	53.00	0.60	29.8	-1.48	-3.12
MSW-16	OK	8/8/2016 12:02	22.10	36.80	0.30	29.8	-2.68	-3.33
MSW-17	OK	8/8/2016 11:05	23.80	38.60	1.50	29.8	-1.09	-
MSW-18	OK	8/8/2016 12:06	34.60	44.60	1.20	29.8	-1.64	-
MSW-19	OK	8/8/2016 11:55	45.10	52.90	1.90	29.8	-1.39	-1.46

Notes:

- = No well head vacuum sample port present.
CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
NS - Not Sampled
Weather - Partly Cloudy, 83°F

***MSW-01 - Well under repair**

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

CLOSED MSW LANDFILL

Location ID	Date	Time	CH_4	CO_2	O_2	Temp.	Well Head Pressure	Atmospheric Pressure	Valve Position
N. Valve Structure									
V-200	8/26/2016	9:47	25.00	29.00	3.90	92	-2.74	29.9	1/2 open
V-203		9:49	4.40	12.70	8.10	90	-2.91	29.9	1/4 open
Dog House									
Phase IV Vertical	8/26/2016	9:54	26.10	36.10	1.50	94	-4.68	29.9	open
Phase II Horizontal		9:55	0.00	14.90	6.90	94	-0.56	29.8	closed
Small Dog House	8/26/2016								
Phase II Horizontal		9:57	9.10	20.10	5.20	94	-4.43	29.8	1/2 open
Phase II Valve Pit									
E-Horizontal	8/26/2016	10:02	32.00	47.50	0.30	94	-5.99	29.8	1/2 open
W-Horizontal		10:04	29.10	44.60	0.30	92	-5.92	29.9	1/2 open
CF Phase II-Vertical**									NS
Flare Compound									
*MP-01 Gas Analyzer	8/26/2016	10:07	0.00	0.10	17.50	90	-9.14	29.9	N/A
CF Phase I**		NS	NS	NS	NS	NS	NS	NS	NS

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Temperature measured in degrees Farenheit.
Blower status - On
Weather - Scattered Clouds, 92°F
* = Analyzer combined
** = Offline
N/A = Not Applicable
NS = Not Sampled

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Location ID	Date	Location Description	VOCs
AMBIENT 1	8/26/2016	Northeastern portion of landfill property, just west of well C-13	0.0
AMBIENT 2	8/26/2016	Southeastern portion of landfill property, just west of well MW-D10	0.0
AMBIENT 3	8/26/2016	Northwestern portion of landfill property, just southeast of well A-17	0.0
AMBIENT 4	8/26/2016	Southwestern portion of landfill property, just east of well MW-2C	0.0

Notes:

VOCs reported as parts per million, as measured by a calibrated photoionization detector.
Weather - Scattered Clouds, 92°F

FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

909 Marconi Avenue
Ronkonkoma, NY 11779
631/737-6200
Fax 631/737-2410

October 3, 2016

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

Re: **Blydenburgh Road Landfill**
September 2016 Landfill Gas and VOC Gas Monitoring Results
FPM File No. 631-16-29

Dear Mr. Varrichio:

On September 9, 14, and 21, 2016, FPM Group (FPM) performed landfill gas and volatile organic compound (VOC) gas monitoring at the above-referenced site. Monitoring of landfill gas was performed with a Landtec GEM 2000 Gas Analyzer. Monitoring for VOCs in ambient air was performed with a Photovac photoionization detector (PID), model 2020 Pro Plus. Ambient air VOC monitoring was conducted to address the provision for this measure in the Record of Decision (ROD) for this facility and was performed at four locations near the landfill perimeter, including one location downwind from the flare system.

For the Landtec GEM 2000 Gas Analyzer, oxygen (O_2) gas and methane (CH_4) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH_4 and 15% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. The Photovac PID was zeroed with ambient air prior to arrival at the landfill property, and calibrated with 100 parts per million (ppm) isobutylene prior to sampling in accordance with the manufacturer's recommendations.

The landfill gas monitoring results are provided in Tables 1 through 11 and the ambient air VOC monitoring results are provided in Table 12. CH_4 was not detected in any of the landfill monitoring wells this month and VOCs were not detected in the ambient air. An elevated level of O_2 was detected in well MSW-15. This issue is being addressed.

The next landfill gas monitoring event will begin on October 7, 2016. Jim Jahnke will be notified several days in advance of the sampling event.

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 242.

Sincerely,

Chris Linkletter
Hydrogeologist

CL:tac
Attachments

cc: Jim Jahnke (via email)
Fazil Rahaman (via email)

S:\Islip RRA\Reports\2016-Ltrs\Sept Blydenburgh Docx

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
A-01	OK	9/9/2016 11:22	0.00	0.40	17.50	29.6	-0.48
A-02	OK	9/9/2016 11:25	0.00	0.00	17.80	29.7	-0.62
A-03	OK	9/9/2016 11:27	0.00	0.00	17.90	29.7	-0.71
A-04	OK	9/9/2016 11:29	0.00	0.20	17.80	29.7	-0.54
A-05	OK	9/9/2016 11:31	0.00	0.00	18.00	29.7	-0.43
A-06	OK	9/9/2016 11:36	0.00	0.00	18.00	29.7	-1.85
A-07	OK	9/9/2016 11:38	0.00	0.00	18.00	29.7	-0.42
A-08	OK	9/9/2016 11:41	0.00	0.00	18.00	29.7	-0.93
A-09	OK	9/9/2016 11:43	0.00	0.00	18.00	29.7	-1.00
A-10	OK	9/9/2016 11:47	0.00	0.00	18.10	29.7	-0.82
A-11	OK	9/9/2016 11:53	0.00	0.00	18.10	29.7	-5.56
A-12	OK	9/9/2016 11:56	0.00	0.00	18.20	29.7	-0.53
A-13	OK	9/9/2016 12:00	0.00	0.00	18.20	29.7	-0.62
A-14	OK	9/9/2016 12:03	0.00	1.00	17.20	29.7	-0.44
A-15	OK	9/9/2016 12:06	0.00	1.70	16.50	29.7	-0.35
A-16	OK	9/9/2016 12:12	0.00	0.00	18.10	29.7	-1.00
A-17	OK	9/9/2016 12:17	0.00	0.00	18.10	29.7	-0.51
A-18	OK	9/9/2016 12:19	0.00	0.00	18.10	29.7	-1.72
BLOWER A	N/A	9/9/2016 12:33	0.00	0.00	18.00	29.7	-0.01
BLOWER B	N/A	9/9/2016 12:35	0.00	2.20	16.00	29.7	8.73

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 90°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-07/20	OK	9/9/2016 13:01	0.00	0.00	18.10	29.7	-0.16
MW-07/40	OK	9/9/2016 13:03	0.00	0.00	18.10	29.7	-0.26
MW-07/60	OK	9/9/2016 13:05	0.00	0.00	18.20	29.7	-0.29
MW-08/20	OK	9/9/2016 13:06	0.00	0.30	18.00	29.7	-0.12
MW-08/40	OK	9/9/2016 13:08	0.00	0.00	18.20	29.7	-0.15
MW-08/60	OK	9/9/2016 13:11	0.00	0.00	18.30	29.7	-0.21
MW-11/20	OK	9/9/2016 12:55	0.00	0.00	18.10	29.7	-0.10
MW-11/40	OK	9/9/2016 12:57	0.00	0.00	17.90	29.7	-0.15
MW-11/60	OK	9/9/2016 12:59	0.00	0.00	17.90	29.7	-0.18
MW-13/20	OK	9/9/2016 13:13	0.00	0.30	17.90	29.7	-0.04

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 90°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
B-04	OK	9/21/2016 10:52	0.00	0.10	18.50	29.9	-0.65
B-05	OK	9/21/2016 10:55	0.00	0.10	18.50	29.9	-0.63
B-06	OK	9/21/2016 11:03	0.00	0.00	18.50	29.9	-0.70
B-07	OK	9/21/2016 11:06	0.00	0.00	18.50	29.9	-2.56
B-08	OK	9/21/2016 11:10	0.00	0.00	18.60	29.9	-0.42
B-09	OK	9/21/2016 11:19	0.00	0.30	18.30	30.0	-2.80
B-10	OK	9/21/2016 11:21	0.00	0.00	18.50	30.0	-0.67
B-11	OK	9/21/2016 11:23	0.00	0.30	18.50	30.0	-0.76
B-12	OK	9/21/2016 11:26	0.00	0.00	18.40	30.0	-4.77
B-13	OK	9/21/2016 11:29	0.00	0.00	18.40	30.0	-18.38
B-14	OK	9/21/2016 11:31	0.00	0.00	18.50	30.0	-2.53
B-15	OK	9/21/2016 11:33	0.00	0.00	18.50	30.0	-5.54
BLOWER B	N/A	9/21/2016 11:17	0.00	0.20	18.50	29.9	0.01
BLOWER C	N/A	9/21/2016 12:34	0.70	3.30	15.30	30.0	5.19

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 82°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-01/20	OK	9/21/2016 10:47	0.00	0.10	18.50	29.9	-0.26
MW-01/40	OK	9/21/2016 10:49	0.00	0.10	18.50	29.9	-0.19
MW-01/60	OK	9/21/2016 10:51	0.00	0.10	18.50	29.9	-0.20
MW-02/20	OK	9/21/2016 10:57	0.00	0.10	18.50	29.9	-0.16
MW-02/40	OK	9/21/2016 10:59	0.00	0.00	18.50	29.9	-0.26
MW-02/60	OK	9/21/2016 11:01	0.00	0.00	18.50	29.9	-0.23
MW-25/20	OK	9/21/2016 11:57	0.00	0.00	18.50	30.0	-0.02
MW-25/40	OK	9/21/2016 11:59	0.00	0.00	18.40	30.0	-0.05
MW-25/60	OK	9/21/2016 12:01	0.00	0.00	18.60	30.0	-0.33
MW-26/20	OK	9/21/2016 11:50	0.00	0.00	18.60	30.0	-0.10
MW-26/40	OK	9/21/2016 11:52	0.00	0.00	18.60	30.0	-0.15
MW-26/60	OK	9/21/2016 11:54	0.00	0.00	18.60	30.0	0.00
MW-27/20	OK	9/21/2016 11:44	0.00	0.00	18.40	30.0	-0.04
MW-27/40	OK	9/21/2016 11:46	0.00	0.10	18.40	30.0	-0.16
MW-27/60	OK	9/21/2016 11:48	0.00	0.00	18.50	30.0	-0.10

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 82°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
C-01	OK	9/21/2016 13:36	0.00	0.00	18.80	29.9	-4.03
C-02	OK	9/21/2016 13:33	0.00	0.00	18.80	29.9	-1.41
C-03	OK	9/21/2016 13:28	0.00	0.00	18.70	30.0	-3.17
C-04	OK	9/21/2016 13:24	0.00	0.00	18.80	30.0	-3.40
C-05	OK	9/21/2016 13:21	0.00	0.00	18.80	30.0	-2.52
C-06	OK	9/21/2016 13:19	0.00	0.00	18.70	30.0	-2.22
C-07	OK	9/21/2016 13:16	0.00	0.00	18.80	30.0	-2.69
C-08	OK	9/21/2016 13:14	0.00	0.00	18.70	30.0	-3.22
C-09	OK	9/21/2016 13:12	0.00	0.00	18.70	30.0	-1.91
C-10	OK	9/21/2016 13:09	0.00	0.00	18.70	30.0	-4.78
C-11	OK	9/21/2016 13:07	0.00	0.00	18.70	30.0	-5.27
C-12	OK	9/21/2016 13:03	0.00	0.00	18.60	30.0	-3.86
C-13	OK	9/21/2016 13:01	0.00	0.00	18.50	30.0	-1.54
C-14	OK	9/21/2016 12:58	0.00	0.00	18.50	30.0	-0.88
C-15	OK	9/21/2016 12:52	0.00	0.00	18.40	30.0	-2.19
C-16	OK	9/21/2016 12:50	0.00	0.00	18.40	30.0	-1.65
C-17	OK	9/21/2016 13:40	0.00	2.90	16.30	29.9	-4.43
BLOWER C	N/A	9/21/2016 12:34	0.70	3.30	15.30	30.0	5.19

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 82°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-19/20	OK	9/21/2016 14:04	0.00	0.30	18.20	29.9	-0.48
MW-19/40	OK	9/21/2016 14:06	0.00	0.60	18.00	30.0	-0.13
MW-19/60	OK	9/21/2016 14:08	0.00	0.40	18.10	30.0	-0.07
MW-23/20	OK	9/21/2016 13:56	0.00	0.10	18.50	29.9	-0.01
MW-23/40	OK	9/21/2016 13:57	0.00	0.10	18.50	29.9	-0.01
MW-23/60	OK	9/21/2016 13:59	0.00	0.00	18.60	29.9	-0.04

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 82°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-50	OK	9/21/2016 11:08	0.00	0.00	18.50	29.9	-0.11
MW-51	OK	9/9/2016 12:54	0.00	0.00	18.00	29.7	-0.26
MW-52	OK	9/9/2016 11:50	0.00	0.10	18.00	29.7	-0.06
MW-53	OK	9/9/2016 12:22	0.00	0.10	18.30	29.7	0.00
MW-54	OK	9/9/2016 12:24	0.00	0.10	18.30	29.7	0.03
MW-56	OK	9/21/2016 12:47	0.00	0.00	18.30	30.0	-0.03
MW-57	OK	9/21/2016 12:49	0.00	0.00	18.30	30.0	-0.11
MW-58	OK	9/21/2016 14:23	0.00	0.10	18.60	30.0	-0.03
MW-59	OK	9/21/2016 12:56	0.00	0.00	18.40	30.0	-0.01
MW-60	OK	9/21/2016 12:59	0.00	0.00	18.50	30.0	-0.29
MW-61	OK	9/21/2016 13:05	0.00	0.00	18.60	30.0	-0.68
MW-62	OK	9/21/2016 14:13	0.00	0.00	18.70	30.0	-0.17
MW-63	OK	9/21/2016 14:11	0.00	0.00	18.70	30.0	-0.31
MW-64	OK	9/21/2016 13:23	0.00	0.00	18.70	30.0	-0.58
MW-65	OK	9/21/2016 13:29	0.00	0.00	18.70	30.0	-0.40

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather: 9/9/2016 - Partly Cloudy, 90°F 9/21/2016 - Partly Cloudy, 82°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - Closed MSW Landfill

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure	Well Head Vacuum
MSW-01	*	NS	NS	NS	NS	NS	NS	NS
MSW-03	OK	9/14/2016 10:26	28.10	34.50	0.70	29.8	0.33	0.17
MSW-04	OK	9/14/2016 10:31	15.00	27.50	2.30	29.8	0.16	0.41
MSW-05	OK	9/14/2016 10:36	45.50	54.00	0.30	29.8	0.18	0.20
MSW-06	OK	9/14/2016 10:40	41.20	58.80	0.50	29.8	0.42	0.30
MSW-07	OK	9/14/2016 10:44	40.40	59.60	0.40	29.8	0.21	0.29
MSW-09	OK	9/14/2016 10:51	41.00	59.00	0.30	29.8	0.34	0.36
MSW-10	OK	9/14/2016 10:58	49.50	58.90	0.50	29.8	0.31	-
MSW-11	OK	9/14/2016 11:03	46.30	59.40	0.40	29.8	0.28	0.27
MSW-12	OK	9/14/2016 11:09	47.70	59.40	1.40	29.8	0.28	0.28
MSW-13	OK	9/14/2016 11:15	46.80	59.80	1.10	29.8	0.79	-
MSW-14	OK	9/14/2016 11:20	43.50	59.20	0.90	29.8	3.71	-
MSW-15	OK	9/14/2016 11:22	47.00	51.50	6.50	29.8	0.31	0.26
MSW-16	OK	9/14/2016 11:25	44.60	49.70	1.50	29.8	0.28	0.23
MSW-17	OK	9/14/2016 10:29	35.40	46.40	0.30	29.8	0.16	-
MSW-18	OK	9/14/2016 11:35	42.70	56.90	0.30	29.8	0.34	-
MSW-19	OK	9/14/2016 11:31	44.90	59.50	0.60	29.8	0.35	0.37

Notes:

- = No well head vacuum sample port present.
CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
NS - Not Sampled
Weather - Clear, 84°F

***MSW-01 - Well under repair**

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

CLOSED MSW LANDFILL

Location ID	Date	Time	CH_4	CO_2	O_2	Temp.	Well Head Pressure	Atmospheric Pressure	Valve Position
N. Valve Structure	9/21/2016								
V-200		10:08	17.20	21.40	5.50	84	-2.98	30.0	1/2 open
V-203		10:11	3.80	11.50	8.90	82	-2.90	30.0	1/4 open
Dog House	9/21/2016								
Phase IV Vertical		10:17	25.30	35.00	1.80	86	-4.43	30.0	open
Phase II Horizontal		10:19	0.00	16.30	4.70	84	-0.69	29.9	closed
Small Dog House	9/21/2016								
Phase II Horizontal		10:21	10.30	23.20	3.60	86	-4.19	29.9	1/2 open
Phase II Valve Pit	9/21/2016								
E-Horizontal		10:25	27.40	45.70	0.30	86	-5.18	29.9	1/2 open
W-Horizontal		10:28	31.80	47.60	0.30	84	-5.28	30.0	1/2 open
CF Phase II-Vertical**									NS
Flare Compound	9/21/2016								
*MP-01 Gas Analyzer		10:32	0.00	0.10	18.30	84	-7.73	30.0	N/A
CF Phase I**		NS	NS	NS	NS	NS	NS	NS	NS

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Temperature measured in degrees Farenheit.
Blower status - On
Weather - Partly Cloudy, 82°F
* = Analyzer combined
** = Offline
N/A = Not Applicable
NS = Not Sampled

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Location ID	Date	Location Description	VOCs
AMBIENT 1	9/21/2016	Northern portion of landfill property, just south of well MW-26/40	0.0
AMBIENT 2	9/21/2016	Southern portion of landfill property, just north of MW-D4/40	0.0
AMBIENT 3	9/21/2016	Western portion of landfill property, just east of B-04	0.0
AMBIENT 4	9/21/2016	Eastern portion of landfill property, just west of C-04	0.0

Notes:

VOCs reported as parts per million, as measured by a calibrated photoionization detector.
Weather - Partly Cloudy, 82°F

FPM

FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

909 Marconi Avenue
Ronkonkoma, NY 11779
631/737-6200
Fax 631/737-2410

November 1, 2016

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

Re: **Blydenburgh Road Landfill**
October 2016 Landfill Gas and VOC Gas Monitoring Results
FPM File No. 631-16-29

Dear Mr. Varrichio:

On October 7, 12, and 17, 2016, FPM Group (FPM) performed landfill gas and volatile organic compound (VOC) gas monitoring at the above-referenced site. Monitoring of landfill gas was performed with a Landtec GEM 2000 Gas Analyzer. Monitoring for VOCs in ambient air was performed with a Photovac photoionization detector (PID), model 2020 Pro Plus. Ambient air VOC monitoring was conducted to address the provision for this measure in the Record of Decision (ROD) for this facility and was performed at four locations near the landfill perimeter, including one location downwind from the flare system.

For the Landtec GEM 2000 Gas Analyzer, oxygen (O_2) gas and methane (CH_4) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH_4 and 15% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. The Photovac PID was zeroed with ambient air prior to arrival at the landfill property, and calibrated with 100 parts per million (ppm) isobutylene prior to sampling in accordance with the manufacturer's recommendations.

The landfill gas monitoring results are provided in Tables 1 through 11 and the ambient air VOC monitoring results are provided in Table 12. CH_4 was not detected in any of the landfill monitoring wells this month and VOCs were not detected in the ambient air. An elevated level of O_2 was detected in well MSW-4. This issue is being addressed.

The next landfill gas monitoring event will begin on November 4, 2016. Jim Jahnke will be notified several days in advance of the sampling event.

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 242.

Sincerely,

Chris Linkletter
Hydrogeologist

CL:tac
Attachments

cc: Jim Jahnke (via email)
Fazil Rahaman (via email)

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BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
A-01	OK	10/7/2016 11:27	0.00	0.10	18.10	30.0	-0.40
A-02	OK	10/7/2016 11:30	0.00	0.10	18.30	30.0	-0.60
A-03	OK	10/7/2016 11:33	0.00	0.10	18.30	30.0	-0.81
A-04	OK	10/7/2016 11:38	0.00	0.30	18.20	30.1	-0.50
A-05	OK	10/7/2016 11:41	0.00	0.00	18.50	30.0	-0.42
A-06	OK	10/7/2016 11:45	0.00	0.00	18.50	30.0	-1.71
A-07	OK	10/7/2016 11:47	0.00	0.00	18.50	30.1	-0.44
A-08	OK	10/7/2016 11:49	0.00	0.00	18.60	30.1	-0.88
A-09	OK	10/7/2016 11:52	0.00	0.00	18.60	30.1	-1.01
A-10	OK	10/7/2016 11:55	0.00	0.00	18.60	30.0	-0.80
A-11	OK	10/7/2016 12:00	0.00	0.00	18.60	30.1	-5.91
A-12	OK	10/7/2016 12:02	0.00	0.00	18.60	30.0	-0.57
A-13	OK	10/7/2016 12:04	0.00	0.00	18.70	30.1	-0.61
A-14	OK	10/7/2016 12:07	0.00	1.60	17.10	30.0	-0.40
A-15	OK	10/7/2016 12:09	0.00	1.40	17.30	30.1	-0.29
A-16	OK	10/7/2016 12:19	0.00	0.00	18.50	30.1	-0.86
A-17	OK	10/7/2016 12:21	0.00	0.00	18.50	30.1	-0.53
A-18	OK	10/7/2016 12:23	0.00	0.00	18.40	30.1	-1.68
BLOWER A	N/A	10/7/2016 12:37	0.00	0.00	18.60	30.1	-0.02
BLOWER B	N/A	10/7/2016 12:39	0.20	2.50	16.30	30.1	9.02

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 73°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-07/20	OK	10/7/2016 13:12	0.00	0.00	18.80	30.0	-0.08
MW-07/40	OK	10/7/2016 13:15	0.00	0.00	18.70	30.0	-0.11
MW-07/60	OK	10/7/2016 13:16	0.00	0.00	18.90	30.0	-0.15
MW-08/20	OK	10/7/2016 13:18	0.00	0.00	18.80	30.0	-0.06
MW-08/40	OK	10/7/2016 13:20	0.00	0.00	18.80	30.0	-0.08
MW-08/60	OK	10/7/2016 13:22	0.00	0.00	18.80	30.0	-0.10
MW-11/20	OK	10/7/2016 13:05	0.00	0.00	18.70	30.0	-0.05
MW-11/40	OK	10/7/2016 13:07	0.00	0.00	18.60	30.0	-0.07
MW-11/60	OK	10/7/2016 13:09	0.00	0.00	18.60	30.0	-0.08
MW-13/20	OK	10/7/2016 13:24	0.00	0.50	18.40	30.0	-0.02

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 73°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
B-04	OK	10/17/2016 10:48	0.00	0.10	18.10	29.7	-0.59
B-05	OK	10/17/2016 10:50	0.00	0.10	18.20	29.7	-0.67
B-06	OK	10/17/2016 10:58	0.00	0.10	18.10	29.7	-0.59
B-07	OK	10/17/2016 11:00	0.00	0.10	18.20	29.7	-2.47
B-08	OK	10/17/2016 11:04	0.00	0.10	18.30	29.7	-0.75
B-09	OK	10/17/2016 11:10	0.00	0.00	18.40	29.8	-3.83
B-10	OK	10/17/2016 11:12	0.00	0.00	18.40	29.8	-0.82
B-11	OK	10/17/2016 11:14	0.00	0.30	18.30	29.8	-0.96
B-12	OK	10/17/2016 11:16	0.00	0.00	18.50	29.8	-5.85
B-13	OK	10/17/2016 11:19	0.00	0.00	18.50	29.8	-22.88
B-14	OK	10/17/2016 11:21	0.00	0.00	18.60	29.8	-3.01
B-15	OK	10/17/2016 11:22	0.00	0.00	18.60	29.8	-6.30
BLOWER B	N/A	10/17/2016 11:08	0.00	0.40	18.10	29.7	0.01
BLOWER C	N/A	10/17/2016 11:57	0.40	3.70	14.90	29.8	3.53

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Scattered Clouds, 62°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-01/20	OK	10/17/2016 10:43	0.00	0.10	18.10	29.7	-0.13
MW-01/40	OK	10/17/2016 10:45	0.00	0.10	18.10	29.7	-0.08
MW-01/60	OK	10/17/2016 10:47	0.00	0.10	18.10	29.7	-0.09
MW-02/20	OK	10/17/2016 10:52	0.00	0.10	18.20	29.7	-0.09
MW-02/40	OK	10/17/2016 10:54	0.00	0.10	18.20	29.7	-0.14
MW-02/60	OK	10/17/2016 10:55	0.00	0.10	18.20	29.7	-0.11
MW-25/20	OK	10/17/2016 11:42	0.00	0.20	18.20	29.8	-0.10
MW-25/40	OK	10/17/2016 11:44	0.00	0.00	18.30	29.8	-0.10
MW-25/60	OK	10/17/2016 11:46	0.00	0.30	18.10	29.8	-0.36
MW-26/20	OK	10/17/2016 11:37	0.00	0.00	18.50	29.8	-0.11
MW-26/40	OK	10/17/2016 11:38	0.00	0.00	18.50	29.8	-0.15
MW-26/60	OK	10/17/2016 11:40	0.00	0.00	18.50	29.8	-0.01
MW-27/20	OK	10/17/2016 11:30	0.00	0.00	18.40	29.8	-0.04
MW-27/40	OK	10/17/2016 11:32	0.00	0.20	18.30	29.8	-0.16
MW-27/60	OK	10/17/2016 11:33	0.00	0.00	18.50	29.8	-0.09

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Scattered Clouds, 62°F

FPM

LANDFILL GAS MONITORING RESULTS

BLYDENBURGH ROAD LANDFILL

ISLIP, NEW YORK

Extraction Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
C-01	OK	10/17/2016 13:04	0.00	0.00	18.70	29.7	-2.46
C-02	OK	10/17/2016 13:02	0.00	0.10	18.50	29.7	-0.82
C-03	OK	10/17/2016 12:58	0.00	0.00	18.70	29.7	-1.81
C-04	OK	10/17/2016 12:56	0.00	0.00	18.60	29.7	-2.03
C-05	OK	10/17/2016 12:52	0.00	0.00	18.60	29.7	-1.30
C-06	OK	10/17/2016 12:50	0.00	0.00	18.50	29.7	-1.23
C-07	OK	10/17/2016 12:48	0.00	0.00	18.50	29.7	-1.52
C-08	OK	10/17/2016 12:46	0.00	0.00	18.50	29.8	-1.67
C-09	OK	10/17/2016 12:44	0.00	0.00	18.50	29.8	-1.12
C-10	OK	10/17/2016 12:42	0.00	0.00	18.40	29.8	-2.90
C-11	OK	10/17/2016 12:37	0.00	0.00	18.40	29.8	-2.60
C-12	OK	10/17/2016 12:34	0.00	0.00	18.30	29.8	-1.94
C-13	OK	10/17/2016 12:31	0.00	0.00	18.30	29.8	-0.94
C-14	OK	10/17/2016 12:28	0.00	0.00	18.20	29.8	-0.50
C-15	OK	10/17/2016 12:22	0.00	0.00	18.10	29.8	-1.56
C-16	OK	10/17/2016 12:21	0.00	0.00	18.00	29.8	-0.90
C-17	OK	10/17/2016 13:07	0.00	4.20	14.70	29.7	-2.64
BLOWER C	N/A	10/17/2016 11:57	0.40	3.70	14.90	29.8	3.53

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Scattered Clouds, 62°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-19/20	OK	10/17/2016 13:36	0.00	0.40	18.00	29.7	-0.01
MW-19/40	OK	10/17/2016 13:38	0.00	0.60	18.00	29.7	-0.03
MW-19/60	OK	10/17/2016 13:39	0.00	0.50	18.00	29.7	-0.11
MW-23/20	OK	10/17/2016 13:28	0.00	1.70	16.20	29.7	0.00
MW-23/40	OK	10/17/2016 13:30	0.00	1.70	17.10	29.7	-0.01
MW-23/60	OK	10/17/2016 13:32	0.00	1.30	17.20	29.7	0.24

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Scattered Clouds, 62°F

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-50	OK	10/17/2016 11:02	0.00	0.00	18.20	29.7	-0.01
MW-51	OK	10/7/2016 13:04	0.00	0.00	18.50	30.1	-0.17
MW-52	OK	10/7/2016 11:58	0.00	0.20	18.40	30.0	-0.05
MW-53	OK	10/7/2016 12:26	0.00	0.00	18.40	30.1	-0.07
MW-54	OK	10/7/2016 12:29	0.00	0.30	18.20	30.1	-0.06
MW-56	OK	10/17/2016 12:16	0.00	2.20	15.30	29.8	0.01
MW-57	OK	10/17/2016 12:19	0.00	0.10	17.70	29.8	0.00
MW-58	OK	10/17/2016 13:53	0.00	0.60	18.00	29.7	0.00
MW-59	OK	10/17/2016 12:26	0.00	0.50	17.40	29.8	0.00
MW-60	OK	10/17/2016 12:29	0.00	0.00	18.20	29.8	-0.12
MW-61	OK	10/17/2016 12:35	0.00	0.00	18.30	29.8	-0.34
MW-62	OK	10/17/2016 13:44	0.00	0.30	18.30	29.7	-0.01
MW-63	OK	9/21/2016 14:11	0.00	0.00	18.70	30.0	-0.31
MW-64	OK	10/17/2016 12:54	0.00	0.00	18.60	29.7	-0.26
MW-65	OK	10/17/2016 13:00	0.00	0.00	18.70	29.7	-0.17

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather: 10/7/2016 - Partly Cloudy, 73°F 10/17/2016 - Scattered Clouds, 62°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - Closed MSW Landfill

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure	Well Head Vacuum
MSW-01	*	NS	NS	NS	NS	NS	NS	NS
MSW-03	OK	10/12/2016 11:17	27.00	33.60	0.90	30.0	-0.11	-2.76
MSW-04	OK	10/12/2016 11:25	14.80	26.60	3.00	30.1	-2.41	-2.93
MSW-05	OK	10/12/2016 11:28	43.60	52.10	0.20	30.0	-1.36	-1.99
MSW-06	OK	10/12/2016 11:32	27.60	40.10	0.20	30.0	-1.34	-1.69
MSW-07	OK	10/12/2016 11:36	16.30	19.40	1.60	30.0	-0.84	-1.40
MSW-09	OK	10/12/2016 11:40	20.20	37.10	0.60	30.0	-0.97	-1.52
MSW-10	OK	10/12/2016 11:46	42.30	58.30	0.70	30.0	-0.68	-
MSW-11	OK	10/12/2016 11:52	29.70	45.70	0.20	30.1	-1.30	-1.30
MSW-12	OK	10/12/2016 11:57	30.40	45.70	0.20	30.0	-1.32	-1.58
MSW-13	OK	10/12/2016 12:03	44.30	59.90	1.50	30.0	-0.16	-
MSW-14	OK	10/12/2016 12:07	43.10	60.80	0.40	30.1	2.61	-
MSW-15	OK	10/12/2016 12:12	42.50	55.50	1.90	30.0	-0.76	-2.21
MSW-16	OK	10/12/2016 12:16	25.70	41.80	0.30	30.0	-1.75	-2.17
MSW-17	OK	10/12/2016 11:23	28.20	42.40	1.10	30.0	-0.41	-
MSW-18	OK	10/12/2016 12:21	44.50	54.90	0.40	30.0	-0.77	-
MSW-19	OK	10/12/2016 12:09	40.80	57.30	1.70	30.0	-0.67	-1.37

Notes:

- = No well head vacuum sample port present.
CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
NS - Not Sampled
Weather - Partly Cloudy, 64°F

***MSW-01 - Well under repair**

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

CLOSED MSW LANDFILL

Location ID	Date	Time	CH_4	CO_2	O_2	Temp.	Well Head Pressure	Atmospheric Pressure	Valve Position
N. Valve Structure									
V-200	10/17/2016	10:12	20.90	23.20	5.00	88	-2.75	29.8	1/2 open
V-203		10:14	4.60	12.50	8.10	86	-2.77	29.8	1/4 open
Dog House									
Phase IV Vertical	10/17/2016	10:18	28.70	38.10	1.30	92	-3.43	29.8	open
Phase II Horizontal		10:20	0.00	15.40	6.10	90	-0.40	29.7	closed
Small Dog House	10/17/2016								
Phase II Horizontal		10:22	13.60	25.90	2.60	92	-3.14	29.7	1/2 open
Phase II Valve Pit									
E-Horizontal	10/17/2016	10:25	27.80	46.20	0.30	90	-4.41	29.7	1/2 open
W-Horizontal		10:27	33.40	48.60	0.30	88	-4.40	29.7	1/2 open
CF Phase II-Vertical**									NS
Flare Compound									
*MP-01 Gas Analyzer	10/17/2016	10:31	0.00	0.10	18.10	88	-6.73	29.7	N/A
CF Phase I**		NS	NS	NS	NS	NS	NS	NS	NS

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Temperature measured in degrees Farenheit.
Blower status - On
Weather - Scattered Clouds, 62°F
* = Analyzer combined
** = Offline
N/A = Not Applicable
NS = Not Sampled

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Location ID	Date	Location Description	VOCs
AMBIENT 1	10/17/2016	Northeastern portion of landfill property, just west of well C-13	0.0
AMBIENT 2	10/17/2016	Southeastern portion of landfill property, just west of well MW-D10	0.0
AMBIENT 3	10/17/2016	Northwestern portion of landfill property, just southeast of well A-17	0.0
AMBIENT 4	10/17/2016	Southwestern portion of landfill property, just east of well MW-2C	0.0

Notes:

VOCs reported as parts per million, as measured by a calibrated photoionization detector.
Weather - Scattered Clouds, 62°F

FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

November 30, 2016

909 Marconi Avenue
Ronkonkoma, NY 11779
631/737-6200
Fax 631/737-2410

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

Re: **Blydenburgh Road Landfill**
November 2016 Landfill Gas and VOC Gas Monitoring Results
FPM File No. 631-16-29

Dear Mr. Varrichio:

On November 2, and 9, 2016, FPM Group (FPM) performed landfill gas and volatile organic compound (VOC) gas monitoring at the above-referenced site. Monitoring of landfill gas was performed with a Landtec GEM 2000 Gas Analyzer. Monitoring for VOCs in ambient air was performed with a Photovac photoionization detector (PID), model 2020 Pro Plus. Ambient air VOC monitoring was conducted to address the provision for this measure in the Record of Decision (ROD) for this facility and was performed at four locations near the landfill perimeter, including one location downwind from the flare system.

For the Landtec GEM 2000 Gas Analyzer, oxygen (O_2) gas and methane (CH_4) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH_4 and 15% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. The Photovac PID was zeroed with ambient air prior to arrival at the landfill property, and calibrated with 100 parts per million (ppm) isobutylene prior to sampling in accordance with the manufacturer's recommendations.

The landfill gas monitoring results are provided in Tables 1 through 11 and the ambient air VOC monitoring results are provided in Table 12. CH_4 was not detected in any of the landfill monitoring wells this month and VOCs were not detected in the ambient air. An elevated level of O_2 was detected in wells MSW-15 and MSW-19. This issue is being addressed.

The next landfill gas monitoring event will begin on December 9, 2016. Jim Jahnke will be notified several days in advance of the sampling event.

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 242.

Sincerely,

Chris Linkletter
Hydrogeologist

CL:tac
Attachments

cc: Jim Jahnke (via email)
Fazil Rahaman (via email)

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BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
A-01	OK	11/2/2016 10:51	0.00	0.60	18.00	30.0	-0.27
A-02	OK	11/2/2016 10:53	0.00	0.10	18.40	30.0	-0.23
A-03	OK	11/2/2016 10:55	0.00	0.10	18.50	30.0	-0.49
A-04	OK	11/2/2016 10:58	0.00	0.50	18.20	30.0	-0.36
A-05	OK	11/2/2016 11:02	0.00	0.10	18.60	30.0	-0.31
A-06	OK	11/2/2016 11:04	0.00	0.10	18.60	30.0	-1.24
A-07	OK	11/2/2016 11:07	0.00	0.10	18.60	30.0	-2.52
A-08	OK	11/2/2016 11:10	0.00	0.10	18.60	30.0	-0.61
A-09	OK	11/2/2016 11:13	0.00	0.10	18.60	30.0	-0.69
A-10	OK	11/2/2016 11:16	0.00	0.60	18.20	30.0	-0.54
A-11	OK	11/2/2016 11:21	0.00	0.10	18.60	30.0	-3.76
A-12	OK	11/2/2016 11:23	0.00	0.10	18.70	30.0	-0.47
A-13	OK	11/2/2016 11:26	0.00	0.10	18.70	30.0	-0.45
A-14	OK	11/2/2016 11:29	0.00	1.30	17.50	30.0	-0.27
A-15	OK	11/2/2016 11:31	0.00	1.80	17.00	30.0	-0.21
A-16	OK	11/2/2016 11:34	0.00	0.10	18.60	30.0	-0.61
A-17	OK	11/2/2016 11:37	0.00	0.10	18.60	30.0	-0.39
A-18	OK	11/2/2016 11:38	0.00	0.10	18.60	30.0	-1.21
BLOWER A	N/A	11/2/2016 11:54	0.20	2.90	16.20	30.0	26.02
BLOWER B	N/A	11/2/2016 11:56	0.00	0.20	18.80	30.0	-0.01

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 60°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-07/20	OK	11/2/2016 14:24	0.00	0.10	18.40	29.9	-0.04
MW-07/40	OK	11/2/2016 14:26	0.00	0.10	18.40	29.9	-0.06
MW-07/60	OK	11/2/2016 14:27	0.00	0.10	18.50	29.9	-0.05
MW-08/20	OK	11/2/2016 14:29	0.00	0.10	18.40	29.9	-0.02
MW-08/40	OK	11/2/2016 14:31	0.00	0.10	18.50	29.9	-0.05
MW-08/60	OK	11/2/2016 14:32	0.00	0.10	18.50	29.9	-0.04
MW-11/20	OK	11/2/2016 14:35	0.00	0.10	18.70	29.9	-0.02
MW-11/40	OK	11/2/2016 14:37	0.00	0.10	18.60	29.9	-0.04
MW-11/60	OK	11/2/2016 14:41	0.00	0.10	18.70	29.9	-0.02
MW-13/20	OK	11/2/2016 14:49	0.00	0.40	18.60	29.9	0.00

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 60°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
B-04	OK	11/9/2016 10:05	0.00	0.10	18.80	29.6	-0.66
B-05	OK	11/9/2016 10:06	0.00	0.10	18.80	29.6	-0.68
B-06	OK	11/9/2016 10:14	0.00	0.10	18.80	29.6	-0.47
B-07	OK	11/9/2016 10:16	0.00	0.10	18.80	29.6	-1.95
B-08	OK	11/9/2016 10:23	0.00	0.10	18.70	29.6	-0.75
B-09	OK	11/9/2016 10:33	0.00	0.10	18.70	29.7	-4.14
B-10	OK	11/9/2016 10:36	0.00	0.10	18.70	29.7	-0.92
B-11	OK	11/9/2016 10:38	0.00	0.30	18.50	29.7	-1.15
B-12	OK	11/9/2016 10:40	0.00	0.10	18.70	29.7	-7.53
B-13	OK	11/9/2016 10:42	0.00	0.10	18.60	29.7	-46.85
B-14	OK	11/9/2016 10:46	0.00	0.10	18.70	29.7	-3.45
B-15	OK	11/9/2016 10:47	0.00	0.10	18.70	29.7	-5.18
BLOWER B	N/A	11/9/2016 10:28	0.00	0.10	18.60	29.6	0.00
BLOWER C	N/A	11/9/2016 11:36	0.00	3.60	15.40	29.7	2.63

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Overcast, 55°F

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-01/20	OK	11/9/2016 10:00	0.00	0.20	18.80	29.6	-0.19
MW-01/40	OK	11/9/2016 10:01	0.00	0.10	18.80	29.6	-0.14
MW-01/60	OK	11/9/2016 10:03	0.00	0.10	18.80	29.6	-0.12
MW-02/20	OK	11/9/2016 10:08	0.00	0.10	18.80	29.6	-0.17
MW-02/40	OK	11/9/2016 10:09	0.00	0.10	18.80	29.6	-0.23
MW-02/60	OK	11/9/2016 10:11	0.00	0.10	18.80	29.6	-0.21
MW-25/20	OK	11/9/2016 11:13	0.00	0.20	18.50	29.7	-0.14
MW-25/40	OK	11/9/2016 11:15	0.00	0.10	18.60	29.7	-0.15
MW-25/60	OK	11/9/2016 11:17	0.00	0.20	18.60	29.7	-0.45
MW-26/20	OK	11/9/2016 11:04	0.00	0.10	18.60	29.7	-0.12
MW-26/40	OK	11/9/2016 11:06	0.00	0.10	18.70	29.7	-0.21
MW-26/60	OK	11/9/2016 11:07	0.00	0.10	18.60	29.7	-0.02
MW-27/20	OK	11/9/2016 10:57	0.00	0.10	18.60	29.7	-0.08
MW-27/40	OK	11/9/2016 10:58	0.00	0.10	18.60	29.7	-0.20
MW-27/60	OK	11/9/2016 11:00	0.00	0.10	18.60	29.7	-0.16

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Overcast, 55°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
C-01	OK	11/9/2016 12:41	0.00	0.10	19.00	29.6	-1.13
C-02	OK	11/9/2016 12:39	0.00	1.50	17.50	29.6	-0.62
C-03	OK	11/9/2016 12:32	0.00	0.10	19.00	29.6	-0.01
C-04	OK	11/9/2016 12:30	0.00	0.10	19.00	29.6	-0.85
C-05	OK	11/9/2016 12:26	0.00	0.10	19.00	29.6	-0.88
C-06	OK	11/9/2016 12:23	0.00	0.10	18.90	29.6	-0.71
C-07	OK	11/9/2016 12:21	0.00	0.10	18.90	29.6	-0.99
C-08	OK	11/9/2016 12:19	0.00	0.10	18.90	29.7	-1.00
C-09	OK	11/9/2016 12:16	0.00	0.50	18.40	29.7	-0.73
C-10	OK	11/9/2016 12:14	0.00	0.10	18.60	29.7	-1.43
C-11	OK	11/9/2016 12:12	0.00	0.20	18.40	29.7	-1.20
C-12	OK	11/9/2016 12:08	0.00	0.40	18.10	29.7	-0.40
C-13	OK	11/9/2016 12:05	0.00	0.20	18.50	29.7	-0.51
C-14	OK	11/9/2016 12:02	0.00	0.10	18.50	29.7	-0.31
C-15	OK	11/9/2016 11:58	0.00	0.10	18.50	29.7	-0.81
C-16	OK	11/9/2016 11:56	0.00	0.10	18.40	29.7	-0.46
C-17	OK	11/9/2016 12:49	0.00	6.30	13.60	29.6	-1.07
BLOWER C	N/A	11/9/2016 11:36	0.00	3.60	15.40	29.7	2.63

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Overcast, 55°F

FPM

LANDFILL GAS MONITORING RESULTS

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-19/20	OK	11/9/2016 13:21	0.00	0.50	18.30	29.6	-0.03
MW-19/40	OK	11/9/2016 13:23	0.00	0.80	18.20	29.6	-0.06
MW-19/60	OK	11/9/2016 13:25	0.00	0.80	18.10	29.6	-0.17
MW-23/20	OK	11/9/2016 13:13	0.00	0.20	18.60	29.6	-0.01
MW-23/40	OK	11/9/2016 13:15	0.00	0.20	18.60	29.6	-0.01
MW-23/60	OK	11/9/2016 13:16	0.00	0.20	18.60	29.6	-0.02

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Overcast, 55°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-50	OK	11/9/2016 10:21	0.00	0.10	18.70	29.6	-0.06
MW-51	OK	11/2/2016 14:44	0.00	0.10	18.80	29.9	-0.08
MW-52	OK	11/2/2016 11:18	0.00	0.60	18.30	30.0	0.00
MW-53	OK	11/2/2016 11:42	0.00	0.10	18.60	30.0	-0.05
MW-54	OK	11/2/2016 11:45	0.00	0.40	18.40	30.0	-0.05
MW-56	OK	11/9/2016 11:40	0.00	0.10	18.40	29.7	-0.01
MW-57	OK	11/9/2016 11:53	0.00	0.40	18.10	29.7	-0.01
MW-58	OK	11/9/2016 13:34	0.00	0.10	18.70	29.7	-0.02
MW-59	OK	11/9/2016 12:00	0.00	0.30	18.30	29.7	0.00
MW-60	OK	11/9/2016 12:03	0.00	0.10	18.50	29.7	-0.06
MW-61	OK	11/9/2016 12:10	0.00	0.10	18.60	29.7	-0.18
MW-62	OK	11/9/2016 13:30	0.00	0.10	18.60	29.6	-0.07
MW-63	OK	11/9/2016 13:28	0.00	0.10	18.60	29.6	-0.16
MW-64	OK	11/9/2016 12:27	0.00	0.10	19.00	29.6	-0.13
MW-65	OK	11/9/2016 12:35	0.00	0.10	19.00	29.6	-0.12

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather: 11/2/2016 - Partly Cloudy, 60°F 11/9/2016 - Overcast, 55°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - Closed MSW Landfill

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure	Well Head Vacuum
MSW-01	*	NS	NS	NS	NS	NS	NS	NS
MSW-03	OK	11/2/2016 12:28	29.00	33.70	0.70	30.0	0.31	-2.61
MSW-04	OK	11/2/2016 12:34	16.40	26.60	2.70	29.9	-2.31	-2.99
MSW-05	OK	11/2/2016 12:37	43.90	52.00	0.30	29.9	-1.08	-2.24
MSW-06	OK	11/2/2016 12:42	28.20	39.90	0.30	29.9	-0.89	-1.47
MSW-07	OK	11/2/2016 12:46	20.90	19.40	1.50	29.9	-0.53	-1.41
MSW-09	OK	11/2/2016 12:50	22.40	34.40	2.00	29.9	-0.59	-1.21
MSW-10	OK	11/2/2016 12:54	44.20	55.80	2.60	29.9	-0.31	-
MSW-11	OK	11/2/2016 12:58	31.90	45.30	0.30	29.9	-1.11	-1.58
MSW-12	OK	11/2/2016 13:02	33.00	45.60	0.20	29.9	-0.96	-1.23
MSW-13	OK	11/2/2016 13:07	42.80	60.40	0.30	29.9	0.21	-
MSW-14	OK	11/2/2016 13:14	45.60	60.70	0.40	29.9	3.25	-
MSW-15	OK	11/2/2016 13:21	35.90	40.00	6.40	29.9	-0.51	-2.08
MSW-16	OK	11/2/2016 13:26	28.40	41.70	0.40	29.9	-1.57	-2.11
MSW-17	OK	11/2/2016 12:32	30.50	44.60	0.40	29.9	-0.14	-
MSW-18	OK	11/2/2016 13:30	43.80	55.70	0.40	29.9	-0.61	-
MSW-19	OK	11/2/2016 13:17	0.30	0.50	18.50	29.9	-0.46	-0.44

Notes:

- = No well head vacuum sample port present.
CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
NS - Not Sampled
Weather - Partly Cloudy, 60°F

***MSW-01 - Well under repair**

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

CLOSED MSW LANDFILL

Location ID	Date	Time	CH_4	CO_2	O_2	Temp.	Well Head Pressure	Atmospheric Pressure	Valve Position
N. Valve Structure									
V-200	11/9/2016	8:00	19.70	22.10	5.60	58	-3.18	29.7	1/2 open
V-203		8:02	4.80	12.20	8.70	60	-2.87	29.7	1/4 open
Dog House									
Phase IV Vertical	11/9/2016	8:07	29.00	38.40	1.50	58	-4.03	29.7	open
Phase II Horizontal		8:09	0.10	14.80	7.30	60	-0.59	29.6	closed
Small Dog House	11/9/2016								
Phase II Horizontal		8:11	12.60	23.80	4.10	58	-3.85	29.6	1/2 open
Phase II Valve Pit									
E-Horizontal	11/9/2016	8:14	27.10	46.90	0.40	60	-5.21	29.6	1/2 open
W-Horizontal		8:17	33.30	49.80	0.30	60	-5.13	29.6	1/2 open
CF Phase II-Vertical**									NS
Flare Compound									
*MP-01 Gas Analyzer	11/9/2016	8:21	0.00	0.20	18.80	60	-8.35	29.6	N/A
CF Phase I**		NS	NS	NS	NS	NS	NS	NS	NS

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Temperature measured in degrees Farenheit.
Blower status - On
Weather - Overcast, 55°F
* = Analyzer combined
** = Offline
N/A = Not Applicable
NS = Not Sampled

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Location ID	Date	Location Description	VOCs
AMBIENT 1	11/9/2016	Northern portion of landfill property, just south of MW-26/40	0.0
AMBIENT 2	11/9/2016	Southern portion of landfill property, just north of MW-D4/40	0.0
AMBIENT 3	11/9/2016	Western portion of landfill property, just east of B-04	0.0
AMBIENT 4	11/9/2016	Eastern portion of landfill property, just west of C-04	0.0

Notes:

VOCs reported as parts per million, as measured by a calibrated photoionization detector.
Weather - Overcast, 55°F

FPM

FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

909 Marconi Avenue
Ronkonkoma, NY 11779
631/737-6200
Fax 631/737-2410

December 30, 2016

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

Re: **Blydenburgh Road Landfill**
December 2016 Landfill Gas and VOC Gas Monitoring Results
FPM File No. 631-16-29

Dear Mr. Varrichio:

On December 7, 16, and 22, 2016, FPM Group (FPM) performed landfill gas and volatile organic compound (VOC) gas monitoring at the above-referenced site. Monitoring of landfill gas was performed with a Landtec GEM 2000 Gas Analyzer. Monitoring for VOCs in ambient air was performed with a Photovac photoionization detector (PID), model 2020 Pro Plus. Ambient air VOC monitoring was conducted to address the provision for this measure in the Record of Decision (ROD) for this facility and was performed at four locations near the landfill perimeter, including one location downwind from the flare system.

For the Landtec GEM 2000 Gas Analyzer, oxygen (O_2) gas and methane (CH_4) gas were zeroed according to the manufacturer's specifications. The gas analyzer was calibrated with 15 percent (%) CH_4 and 15% carbon dioxide (CO_2) with the balance nitrogen (N_2) gas, and 4% O_2 with the balance N_2 gas according to the manufacturer's recommendation prior to sampling. The Photovac PID was zeroed with ambient air prior to arrival at the landfill property, and calibrated with 100 parts per million (ppm) isobutylene prior to sampling in accordance with the manufacturer's recommendations.

The landfill gas monitoring results are provided in Tables 1 through 11 and the ambient air VOC monitoring results are provided in Table 12. CH_4 was not detected in any of the landfill monitoring wells this month and VOCs were not detected in the ambient air. An elevated level of O_2 was detected in wells MSW-04, MSW-07 and MSW-15. This issue is being addressed.

The next landfill gas monitoring event will begin on January 5, 2017. Jim Jahnke will be notified several days in advance of the sampling event.

Should you have any questions, please do not hesitate to call me at (631) 737-6200, ext. 242.

Sincerely,

Chris Linkletter
Hydrogeologist

CL:tac
Attachments

cc: Jim Jahnke (via email)
Fazil Rahaman (via email)

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BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
A-01	OK	12/7/2016 11:29	0.00	0.70	18.30	29.7	-0.32
A-02	OK	12/7/2016 11:32	0.00	0.10	18.80	29.7	-0.38
A-03	OK	12/7/2016 11:34	0.00	0.10	18.80	29.7	-0.43
A-04	OK	12/7/2016 11:38	0.00	0.40	18.70	29.7	-0.35
A-05	OK	12/7/2016 11:42	0.00	0.10	18.90	29.7	-0.16
A-06	OK	12/7/2016 11:45	0.00	0.10	18.90	29.7	-1.24
A-07	OK	12/7/2016 11:48	0.00	0.10	18.90	29.7	-3.37
A-08	OK	12/7/2016 11:51	0.00	0.10	18.90	29.7	-0.62
A-09	OK	12/7/2016 11:55	0.00	0.10	18.90	29.7	-0.73
A-10	OK	12/7/2016 11:59	0.00	0.50	18.70	29.7	-0.63
A-11	OK	12/7/2016 12:09	0.00	0.10	18.90	29.7	-4.16
A-12	OK	12/7/2016 12:11	0.00	0.10	18.90	29.7	-0.40
A-13	OK	12/7/2016 12:14	0.00	0.10	18.90	29.7	-0.30
A-14	OK	12/7/2016 12:17	0.00	2.30	17.10	29.7	-0.36
A-15	OK	12/7/2016 12:21	0.00	1.70	17.50	29.7	-0.27
A-16	OK	12/7/2016 12:27	0.00	0.10	18.90	29.7	-0.62
A-17	OK	12/7/2016 12:29	0.00	0.10	18.90	29.7	-0.45
A-18	OK	12/7/2016 12:32	0.00	0.10	18.90	29.7	-1.11
BLOWER A	N/A	12/7/2016 12:49	0.20	3.00	16.70	29.8	26.03
BLOWER B	N/A	12/7/2016 12:50	0.00	0.10	19.10	29.7	-0.01

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Clear, 46°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System A

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-07/20	OK	12/7/2016 13:06	0.00	0.10	18.70	29.7	-0.10
MW-07/40	OK	12/7/2016 13:08	0.00	0.10	18.80	29.7	-0.16
MW-07/60	OK	12/7/2016 13:10	0.00	0.10	18.80	29.7	-0.19
MW-08/20	OK	12/7/2016 13:12	0.00	0.60	18.50	29.7	-0.09
MW-08/40	OK	12/7/2016 13:14	0.00	0.20	18.90	29.7	-0.13
MW-08/60	OK	12/7/2016 13:16	0.00	0.10	19.00	29.7	-0.16
MW-11/20	OK	12/7/2016 13:19	0.00	0.10	19.10	29.7	-0.07
MW-11/40	OK	12/7/2016 13:21	0.00	0.10	19.10	29.7	-0.14
MW-11/60	OK	12/7/2016 13:22	0.00	0.10	19.10	29.7	-0.01
MW-13/20	OK	12/7/2016 13:26	0.00	0.30	19.10	29.7	-0.06

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Clear, 46°F

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
B-04	OK	12/22/2016 11:01	0.00	0.10	18.60	29.7	-0.79
B-05	OK	12/22/2016 11:03	0.00	0.10	18.60	29.7	-0.81
B-06	OK	12/22/2016 11:11	0.00	0.10	18.70	29.7	-0.63
B-07	OK	12/22/2016 11:14	0.00	0.10	18.70	29.7	-4.34
B-08	OK	12/22/2016 11:18	0.00	0.10	18.80	29.7	-0.76
B-09	OK	12/22/2016 11:28	0.00	0.10	18.80	29.7	-4.18
B-10	OK	12/22/2016 11:30	0.00	0.10	18.80	29.7	-0.88
B-11	OK	12/22/2016 11:32	0.00	0.30	18.60	29.7	-1.47
B-12	OK	12/22/2016 11:35	0.00	0.10	18.80	29.7	-6.57
B-13	OK	12/22/2016 11:40	0.00	0.10	18.90	29.7	-42.92
B-14	OK	12/22/2016 11:43	0.00	0.10	18.90	29.7	-3.31
B-15	OK	12/22/2016 11:45	0.00	0.10	18.90	29.7	-4.94
BLOWER B	N/A	12/22/2016 11:25	0.00	3.30	16.20	29.7	9.24
BLOWER C	N/A	12/22/2016 12:37	0.30	3.50	15.20	29.7	2.79

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 45°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System B

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-01/20	OK	12/22/2016 10:45	0.00	0.10	18.50	29.7	-0.07
MW-01/40	OK	12/22/2016 10:47	0.00	0.10	18.60	29.7	-0.05
MW-01/60	OK	12/22/2016 10:49	0.00	0.10	18.60	29.7	-0.08
MW-02/20	OK	12/22/2016 11:05	0.00	0.10	18.60	29.7	-0.11
MW-02/40	OK	12/22/2016 11:07	0.00	0.10	18.60	29.7	-0.15
MW-02/60	OK	12/22/2016 11:09	0.00	0.10	18.70	29.7	-0.15
MW-25/20	OK	12/22/2016 12:01	0.00	0.10	18.90	29.7	-0.11
MW-25/40	OK	12/22/2016 12:03	0.00	0.10	18.90	29.7	-0.14
MW-25/60	OK	12/22/2016 12:05	0.00	0.10	18.90	29.7	-0.46
MW-26/20	OK	12/22/2016 11:54	0.00	0.10	19.00	29.8	-0.10
MW-26/40	OK	12/22/2016 11:56	0.00	0.10	19.00	29.7	-0.16
MW-26/60	OK	12/22/2016 11:58	0.00	0.10	19.00	29.7	-0.01
MW-27/20	OK	12/22/2016 11:48	0.00	0.10	18.90	29.8	-0.06
MW-27/40	OK	12/22/2016 11:49	0.00	0.10	18.90	29.8	-0.10
MW-27/60	OK	12/22/2016 11:51	0.00	0.10	18.90	29.8	-0.04

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 45°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
C-01	OK	12/22/2016 13:41	0.00	0.10	19.00	29.7	-1.33
C-02	OK	12/22/2016 13:38	0.00	2.00	17.00	29.7	-0.45
C-03	OK	12/22/2016 13:33	0.00	0.10	19.00	29.7	-0.92
C-04	OK	12/22/2016 13:31	0.00	0.10	18.90	29.7	-0.98
C-05	OK	12/22/2016 13:26	0.00	0.10	18.90	29.7	-0.72
C-06	OK	12/22/2016 13:23	0.00	0.10	18.90	29.7	-0.64
C-07	OK	12/22/2016 13:20	0.00	0.10	18.90	29.7	-0.85
C-08	OK	12/22/2016 13:16	0.00	0.20	18.90	29.7	-1.34
C-09	OK	12/22/2016 13:13	0.00	0.60	18.50	29.7	-0.64
C-10	OK	12/22/2016 13:10	0.00	0.20	18.90	29.7	-1.23
C-11	OK	12/22/2016 13:08	0.00	0.40	18.70	29.7	-1.79
C-12	OK	12/22/2016 13:03	0.00	0.40	18.50	29.7	-1.22
C-13	OK	12/22/2016 13:00	0.00	0.10	18.70	29.7	-0.72
C-14	OK	12/22/2016 12:57	0.00	0.10	18.60	29.8	-0.49
C-15	OK	12/22/2016 12:51	0.00	0.10	18.50	29.8	-0.95
C-16	OK	12/22/2016 12:49	0.00	0.10	18.40	29.8	-0.49
C-17	OK	12/22/2016 13:44	0.00	6.70	13.10	29.7	-1.32
BLOWER C	N/A	12/22/2016 12:37	0.30	3.50	15.20	29.7	2.79

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
N/A - Not Applicable
Weather - Partly Cloudy, 45°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells - System C

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-19/20	OK	12/22/2016 14:13	0.00	0.90	18.20	29.7	-0.08
MW-19/40	OK	12/22/2016 14:15	0.00	0.50	18.60	29.7	-0.05
MW-19/60	OK	12/22/2016 14:17	0.00	0.40	18.70	29.7	-0.02
MW-23/20	OK	12/22/2016 14:07	0.00	7.90	8.50	29.7	0.00
MW-23/40	OK	12/22/2016 14:08	0.00	2.80	15.40	29.7	-0.01
MW-23/60	OK	12/22/2016 14:10	0.00	2.20	16.90	29.7	0.12

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather - Partly Cloudy, 45°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Monitoring Wells

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure
MW-50	OK	12/22/2016 11:16	0.00	0.20	18.70	29.7	0.00
MW-51	OK	12/7/2016 13:24	0.00	0.10	19.20	29.7	-0.22
MW-52	OK	12/7/2016 12:04	0.00	0.20	18.80	29.7	-0.06
MW-53	OK	12/7/2016 12:36	0.00	0.10	19.00	29.7	-0.07
MW-54	OK	12/7/2016 12:38	0.00	0.30	18.90	29.8	-0.07
MW-56	OK	12/22/2016 12:40	0.00	2.50	15.80	29.7	0.08
MW-57	OK	12/22/2016 12:44	0.00	2.70	15.70	29.7	0.12
MW-58	OK	12/22/2016 14:29	0.00	0.10	19.10	29.7	-0.02
MW-59	OK	12/22/2016 12:54	0.00	1.10	17.80	29.8	0.01
MW-60	OK	12/22/2016 12:58	0.00	0.50	18.20	29.7	0.03
MW-61	OK	12/22/2016 13:05	0.00	0.10	18.80	29.7	-0.06
MW-62	OK	12/22/2016 14:23	0.00	0.10	19.00	29.7	-0.05
MW-63	OK	12/22/2016 14:21	0.00	0.10	18.90	29.7	-0.01
MW-64	OK	12/22/2016 13:28	0.00	0.10	18.80	29.7	-0.06
MW-65	OK	12/22/2016 13:35	0.00	0.10	18.90	29.7	-0.08

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
Weather: 12/7/2016 - Clear, 46°F 12/22/2016 - Partly Cloudy, 45°F

FPM

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Extraction Wells - Closed MSW Landfill

Location ID	Well Condition	Time & Date	CH_4	CO_2	O_2	Atmospheric Pressure	Relative Pressure	Well Head Vacuum
MSW-01	*	NS	NS	NS	NS	NS	NS	NS
MSW-03	OK	12/16/2016 10:43	27.40	34.70	1.20	30.2	-1.28	-4.34
MSW-04	OK	12/16/2016 12:01	13.00	27.90	3.50	30.1	-3.17	-3.86
MSW-05	OK	12/16/2016 10:53	43.00	52.60	1.00	30.1	-2.75	-3.71
MSW-06	OK	12/16/2016 11:53	20.80	38.00	1.20	30.1	-1.97	-2.53
MSW-07	OK	12/16/2016 11:02	19.30	19.30	3.00	30.1	-1.97	-3.10
MSW-09	OK	12/16/2016 11:08	25.90	37.10	1.90	30.1	-2.10	-2.34
MSW-10	OK	12/16/2016 11:14	41.60	56.40	1.90	30.1	-1.74	-
MSW-11	OK	12/16/2016 11:20	23.70	40.70	1.10	30.1	-2.66	-2.91
MSW-12	OK	12/16/2016 11:24	26.20	42.50	1.10	30.1	-2.44	-2.70
MSW-13	OK	12/16/2016 11:29	42.90	61.80	1.10	30.1	-1.14	-
MSW-14	OK	12/16/2016 11:34	43.80	61.70	1.00	30.1	0.57	-
MSW-15	OK	12/16/2016 11:36	7.40	9.70	16.40	30.1	-1.59	-3.26
MSW-16	OK	12/16/2016 11:39	20.60	40.00	1.20	30.1	-2.67	-3.04
MSW-17	OK	12/16/2016 10:46	25.00	40.70	2.30	30.1	-1.50	-
MSW-18	OK	12/16/2016 11:49	40.00	54.00	1.00	30.1	-1.58	-
MSW-19	OK	12/16/2016 11:44	40.50	57.50	1.90	30.1	-1.43	-1.45

Notes:

- = No well head vacuum sample port present.
CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Blower status - On
NS - Not Sampled
Weather - Clear, 34°F

***MSW-01 - Well under repair**

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

CLOSED MSW LANDFILL

Location ID	Date	Time	CH_4	CO_2	O_2	Temp.	Well Head Pressure	Atmospheric Pressure	Valve Position
N. Valve Structure									
V-200	12/22/2016	9:54	15.30	20.30	5.80	50	-2.41	29.8	1/2 open
V-203		9:57	5.60	13.60	7.90	48	-2.50	29.8	1/4 open
Dog House									
Phase IV Vertical	12/22/2016	10:01	29.60	39.10	1.30	48	-3.45	29.8	open
Phase II Horizontal		10:03	0.00	9.70	10.10	50	-0.13	29.7	closed
Small Dog House	12/22/2016								
Phase II Horizontal		10:05	13.90	26.20	2.50	50	-3.21	29.7	1/2 open
Phase II Valve Pit									
E-Horizontal	12/22/2016	10:10	24.90	45.10	0.60	52	-4.70	29.6	1/2 open
W-Horizontal		10:12	31.20	49.00	0.60	50	-4.85	29.6	1/2 open
CF Phase II-Vertical**									NS
Flare Compound									
*MP-01 Gas Analyzer	12/22/2016	10:16	0.00	0.20	19.30	52	-8.09	29.6	N/A
CF Phase I**		NS	NS	NS	NS	NS	NS	NS	NS

Notes:

CH_4, CO_2, and O_2 are reported in percent gas.
Relative well head pressure is reported in inches of water.
Atmospheric pressure is reported in inches of mercury.
Temperature measured in degrees Farenheit.
Blower status - On
Weather - Partly Cloudy, 45°F
* = Analyzer combined
** = Offline
N/A = Not Applicable
NS = Not Sampled

BLYDENBURGH ROAD LANDFILL
ISLIP, NEW YORK

Location ID	Date	Location Description	VOCs
AMBIENT 1	12/22/2016	Northeastern portion of landfill property, just west of well C-13	0.0
AMBIENT 2	12/22/2016	Southeastern portion of landfill property, just west of well MW-D10	0.0
AMBIENT 3	12/22/2016	Northwestern portion of landfill property, just southeast of well A-17	0.0
AMBIENT 4	12/22/2016	Southwestern portion of landfill property, just east of well MW-2C	0.0

Notes:

VOCs reported as parts per million, as measured by a calibrated photoionization detector.
Weather - Partly Cloudy, 45°F

APPENDIX F

INSPECTION FORMS

MEMO

TO: Anthony J. Varrichio, P.E., Chief Engineer

FROM: Fazil Rahaman, Acting Ground Water Treatment Plant Operator

DATE: August 3, 2016

RE: **Blydenburgh Rd. L.F. 2016 1st Half Semi-Annual Post Closure Monitoring and Maintenance Report**

Attached is the 2016, 1st Half Semi-Annual Post Closure Monitoring and Maintenance Report for the M.S.W. Landfill, Ash Monofill, and Groundwater Remediation Facility for your review and comments.

CC: James Jahnke, Sanitation Site Crew Leader

POST CLOSURE MONITORING AND MAINTENANCE REPORT

FOR THE BLYDENBURGH ROAD M.S.W. LANDFILL

FORMER ASH MONOFILL

AND GROUNDWATER REMEDIATION

TABLE of CONTENTS

PART I

BLYDENBURGH ROAD M.S.W. LANDFILL

AND FORMER

ASH MONOFILL INSPECTION REPORT TABLES

Table 2
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 1 FOR
MSW LANDFILL/ ASH MONOFILL COVERS AND SURFACE WATER MANAGEMENT SYSTEM

7/16 WEATHER: Sunny, Sunny.

zil Rahaman INSPECTION (Check One): QUARTERLY ☐ SEMI-ANNUAL ☒ OTHER _____

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
MONOFILL COVER	*See Notes 1 and 2*		
id Waste (MSW) Landfill			
ition of Vegetated Cover	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ition of Conc. Revetment	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Re: Section 1.2
odents/Animal Burrows	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	
ocal Distressed Vegetation	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	
ly Vegetation (Trees)	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	
ition of Roads on Cover	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ocal Settlement	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	
eachate Seeps	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	
r cracks in cover	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Not inspected, Due to obvious reasons.
e erosion	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	
scribe to right)	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
it on MSW Landfill			
ope	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Movement all mat location`s, Will be addressed in closure of C&D.
slope	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Movement all mat location`s, Same.
lope	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Minimal movement all mat location`s, Same.
tion of Vegetated Cover	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Solar farm occupies approximately 15,000 sq. ft..
dents/Animal Burrows	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	
stressed Vegetation	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	

Table 2
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 1 FOR
MSW LANDFILL/ ASH MONOFILL COVERS AND SURFACE WATER MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
/ONOFILL COVER (Cont'd)			
l (Cont'd)			
dy Vegetation (Trees)	ADEQUATE ☐ YES ☒	NEEDS ATTENTION ☐ NO ☐	
dition of Roads on Cover	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	
ocal Settlement	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	
eachate Seeps	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	
r cracks in cover	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☐	Not inspected, Due to obvious reasons.
e erosion	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	
scribe to right)	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☐	
;	*See Note 3*		
ales			
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Excess vegetation/settlement/Subsidence.

Table 2
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 1 FOR
MSW LANDFILL/ ASH MONOFILL COVERS AND SURFACE WATER MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
; (Cont'd)			
vales (Cont'd)			
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Excess vegetation/settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Excess vegetation/settlement/Subsidence.
;			
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Eriosion,Will be addressed in closure of C&D, Photo attached.
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
annels			
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Cracking/spalling,etc. just north of downchute #1, Photo attached.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Cracking/spalling,etc.Will be addressed in closure of C&D, Photo att
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

Table 2
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 1 FOR
MSW LANDFILL/ ASH MONOFILL COVERS AND SURFACE WATER MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
TURES	*See Note 4*		
ɔation Structure No. 1	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ɔation Structure No. 2	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ture No. 1	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ture No. 2	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ture No. 3	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
re-grade inspection)	*See Note 5*		
ı. CMP (Access Way)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
:MP (Access Way & MH)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
: Pipe (Headwall)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ⅵP @ Down Chute No. 5	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Back pitched -Will be addressed in closure of C&D.
ɴS AND	*See Note 6*		
ʂ			
in No. 1			
CMP Outfall	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
P Outfall	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Pipe Outfall	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
deslopes	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Erosion concerns, resulting from cleaning. Photo attached.
ɔttom	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	Under water.

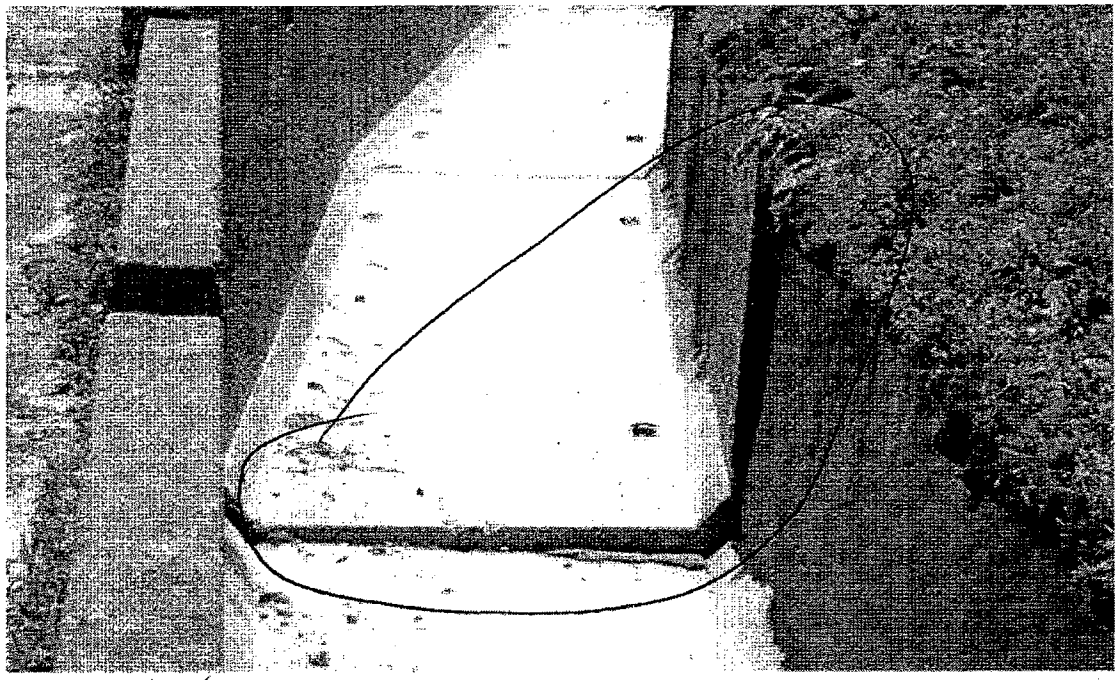
Table 2
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 1 FOR
MSW LANDFILL/ ASH MONOFILL COVERS AND SURFACE WATER MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
IS AND S (CONT'D)			
ain No. 2	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
P Outfall	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Excess vegetation, 2Photo attached.
ile AR-2 Outfall	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Excess vegetation/settlement.
ile AF-3 Outfall	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Excess vegetation/settlement.
deslopes	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Excess woody vegetation.
ottom	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Excess woody vegetation.

form along with Figure 4 – Landfill Cover and Surface Water Management System Plan by Golder Associates.
) – Landfill and Monofill Covers, an example of local distressed vegetation is grass having a brown or black color, and characteristics typical of a leachate seep are own/black liquid or stain possibly with a strong odor.
s to be alert for and possibly noted relating to Item 2.0 – Open Channels: general condition, flow capability, settlement/subsidence, erosion, blockages/debris, animal burrowing, etc.
s to be alert for and possibly noted relating to Item 3.0 – Control Structures: general condition, flow capability, settlement/subsidence, blockages/debris, , cracking/spalling, etc.
s to be alert for and possible noted relating to Item 4.0 – Culverts (Above-grade inspection): condition of exterior of access way/manhole structures, condition of et and outlet, etc.
s to be alert for and possibly noted relating to Item 5.0 – Recharge Basins and Appurtenances: general condition, storage capability, sliding/soughing of burrowing, sediment accumulation, integrity of outfall structures, undermining of culvert barrel, etc.

6/7/16 DOWN CHUTE #1



6/7/16 BASIN #1 SIDE SLOPES

6/6/16 42-IN. DIA CMP OUTFALL

Table 3
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 2 FOR WEEKLY FIELD INSPECTION OF LEACHATE MANAGEMENT SYSTEM

/7/16

WEATHER: Sunnv. Sunnv.

zil Rahaman

INSPECTION (Check One): QUARTERLY ☐ SEMI-ANNUAL ☒ OTHER _____

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
IP MANHOLE			
sure - PSIG	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
ntake Filter Condition	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
oolant/ Oil Level	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
ondensate Drainage	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
pply Filter Condition	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
pply Pressure – PSIG	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
Operation	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
	Based upon engineering consulting firm, investigation and report		
	dated 6/30/03 Attached. The use of this system has been determined		
	unnecessary.		
AGE TANKS			
ank No. 1 Level/Condition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	1Foot.
ank No. 2 Level/Condition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	1Foot.
ank No. 3 Level/Condition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	1Foot.
ank No. 4 Level/Condition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	1Foot.
n System Operation	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Not inspected. Due to product containment.
ontainment Area	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	
ıp Manhole	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	On going monitoring/pump out.
ıp Station	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	On going monitoring/pump out.

Table 3
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 2 FOR WEEKLY FIELD INSPECTION
OF LEACHATE MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
MANHOLE NO. 1 – CONTROL PANEL			
·ating Hours	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	New Meter (1.2 hrs.), Previous Meter (11,955 hrs).
ıntaneous Flow Rate - GPM	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	322 GPM
·ating Hours	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	10,978 hrs.
ıntaneous Flow Rate - GPM	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	184 GPM.
;	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	
ıity Test	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Not working, Being addressed.
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Generator	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	Pump #2 (lag) served by generator,Pump #1 (lead) not served.
·izer Reading - Gallons	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	6,210,959 gal.
ONTROL PANEL			
Hours	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	10,615 hrs.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	
uity Test	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Not working, Being addressed.
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Sump pump, pump`s to recharge basin however unable to pump up riser pipe to tank.(UNDER INVESTIGATION) As per Jim J. L.F. Site crew leader			

Table 3

Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 2 FOR WEEKLY FIELD INSPECTION
OF LEACHATE MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
NERATOR			
vel	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
nt Level	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ivel	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	3/8 full.
hecks:	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	
rformance	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Oil Pressure	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	49 PSI.
Motor Temperature	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	180 Degree Fahrenheit, (RAN FOR 30 MINUTES).
Voltage (underload)	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	240 Volts.
Amperage (underload)	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	12 Amps.
Hertz (underload)	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	57 Herts.
	Generator operable in auto & hand mode.		
	(Mike P., Landfill Personell Present for inspection).		
PUMP STATION			
	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	
	Ash Collection Chamber Readings January through June 2016 Attached.		
	Prepared by Jim J L.F. Site crew leader, being monitored and pumped.		

Friday	1	na	
Saturday	2	na	
Sunday	3	na	
Monday	4	4'	pumped
Tuesday	5	3'3"	
Wednesday	6	3'3"	
Thursday	7	3'3"	pumped
Friday	8	2'8"	
Saturday	9	na	
Sunday	10	na	
Monday	11	3'4"	
Tuesday	12	3'5"	
Wednesday	13	3'5"	
Thursday	14	3'6"	
Friday	15	3'7"	
Saturday	16	na	
Sunday	17	na	
Monday	18	na	
Tuesday	19	4'	
Wednesday	20	4'	
Thursday	21	4'	
Friday	22	4'	
Saturday	23	na	
Sunday	24	na	
Monday	25	na	
Tuesday	26	na	
Wednesday	27	3'10"	
Thursday	28	3'11"	
Friday	29	4'	
Saturday	30	na	
Sunday	31	na	

MSW South Slope Pump Chamber

Date:	*7-Jan-16*
Level:	*24"*

Friday	*1*	*na*	
Saturday	*2*	*na*	
Sunday	*3*	*na*	
Monday	*4*	*4'*	*pumped*
Tuesday	*5*	*3'3"*	
Wednesday	*6*	*3'3"*	
Thursday	*7*	*3'3"*	*pumped*
Friday	*8*	*2'8"*	
Saturday	*9*	*na*	
Sunday	*10*	*na*	
Monday	*11*	*3'4"*	
Tuesday	*12*	*3'5"*	
Wednesday	*13*	*3'5"*	
Thursday	*14*	*3'6"*	
Friday	*15*	*3'7"*	
Saturday	*16*	*na*	
Sunday	*17*	*na*	
Monday	*18*	*na*	
Tuesday	*19*	*4'*	
Wednesday	*20*	*4'*	
Thursday	*21*	*4'*	
Friday	*22*	*4'*	
Saturday	*23*	*na*	
Sunday	*24*	*na*	
Monday	*25*	*na*	
Tuesday	*26*	*na*	
Wednesday	*27*	*3'10"*	
Thursday	*28*	*3'11"*	
Friday	*29*	*4'*	
Saturday	*30*	*na*	
Sunday	*31*	*na*	

MSW South Slope Pump Chamber

Date: *7-Jan-16*

Level: *24"*

Tuesday	*1*	*4'3"*	
Wednesday	*2*	*4'3"*	
Thursday	*3*	*4'3"*	
Friday	*4*	*4'6"*	*pumped*
Saturday	*5*	*na*	
Sunday	*6*	*na*	
Monday	*7*	*2'7"*	
Tuesday	*8*	*2'7"*	
Wednesday	*9*	*na*	
Thursday	*10*	*2'9"*	
Friday	*11*	*na*	
Saturday	*12*	*na*	
Sunday	*13*	*na*	
Monday	*14*	*4'6"*	*pumped*
Tuesday	*15*	*3'8"*	*pumped*
Wednesday	*16*	*4'*	*pumped*
Thursday	*17*	*4'2"*	*pumped*
Friday	*18*	*3'11*	*pumped*
Saturday	*19*	*na*	
Sunday	*20*	*na*	
Monday	*21*	*4'*	*pumped*
Tuesday	*22*	*3'5"*	*pumped*
Wednesday	*23*	*3'6"*	*pumped*
Thursday	*24*	*3'*	*pumped*
Friday	*25*	*2'9"*	
Saturday	*26*	*na*	
Sunday	*27*	*na*	
Monday	*28*	*3'*	
Tuesday	*29*	*3'10"*	
Wednesday	*30*	*3'6"*	
Thursday	*31*	*3'6"*	*pumped*

MSW South Slope Pump Chamber

Date:	*2-Mar-16*
Level:	*31.1"*

Friday	1	3'3"	
Saturday	2		
Sunday	3		
Monday	4	3'9"	
Tuesday	5	3'9"	
Wednesday	6	3'6"	
Thursday	7	3'3"	pumped
Friday	8	3'5"	pumped
Saturday	9		
Sunday	10		
Monday	11	3'3"	
Tuesday	12	3'	
Wednesday	13	3'	
Thursday	14	3'1"	
Friday	15	3'6"	
Saturday	16		
Sunday	17		
Monday	18	3'6"	
Tuesday	19	3'10"	
Wednesday	20	3'6"	
Thursday	21	4'	
Friday	22	3'6"	
Saturday	23		
Sunday	24		
Monday	25	3'6"	
Tuesday	26	na	
Wednesday	27	3'	
Thursday	28	3'3"	
Friday	29	3'10"	
Saturday	30		

MSW South Slope Pump Chamber

Date:	***6-Apr-16***
Level:	***26"***

Sunday	1	na	
Monday	2	3'8"	
Tuesday	3	3'8"	
Wednesday	4	4'	
Thursday	5	na	
Friday	6	4'	
Saturday	7	na	
Sunday	8	na	
Monday	9	3'6"	
Tuesday	10	3'7"	
Wednesday	11	3'7"	
Thursday	12	na	
Friday	13	3'6"	
Saturday	14	na	
Sunday	15	na	
Monday	16	4'4"	pumped
Tuesday	17	3'3"	
Wednesday	18	3'7"	
Thursday	19	3'8"	pumped
Friday	20	3'6"	
Saturday	21	na	
Sunday	22	na	
Monday	23	3'6"	
Tuesday	24	3'7"	
Wednesday	25	3'1"	
Thursday	26	3'6"	
Friday	27	na	
Saturday	28	na	
Sunday	29	na	
Monday	30	na	
Tuesday	31	3'	

MSW South Slope Pump Chamber

Date:	*16-May-16*
Level:	*28.3*

Wednesday	*1*	*na*	
Thursday	*2*	*3'3"*	
Friday	*3*	*na*	
Saturday	*4*	*na*	
Sunday	*5*	*na*	
Monday	*6*	*4'3"*	*pumped*
Tuesday	*7*	*na*	
Wednesday	*8*	*4'4"*	*pumped*
Thursday	*9*	*3'6"*	
Friday	*10*	*na*	
Saturday	*11*	*na*	
Sunday	*12*	*na*	
Monday	*13*	*na*	
Tuesday	*14*	*3'6"*	
Wednesday	*15*	*3'6"*	*pumped*
Thursday	*16*	*3'4"*	
Friday	*17*	*3'5"*	
Saturday	*18*		
Sunday	*19*		
Monday	*20*	*3'9"*	*pumped*
Tuesday	*21*	*3'3"*	
Wednesday	*22*	*3'6"*	
Thursday	*23*	*3'9"*	
Friday	*24*	*3'9"*	
Saturday	*25*	*na*	
Sunday	*26*	*na*	
Monday	*27*	*4'1"*	
Tuesday	*28*	*4'1"*	
Wednesday	*29*	*na*	
Thursday	*30*	*4'1"*	

MSW South Slope Pump Chamber

Date:	*15-Jun-16*
Level:	*37"*

Table 3A
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION OF CONDENSATE COLLECTION SYSTEM FOR GAS SYSTEMS

/21/16

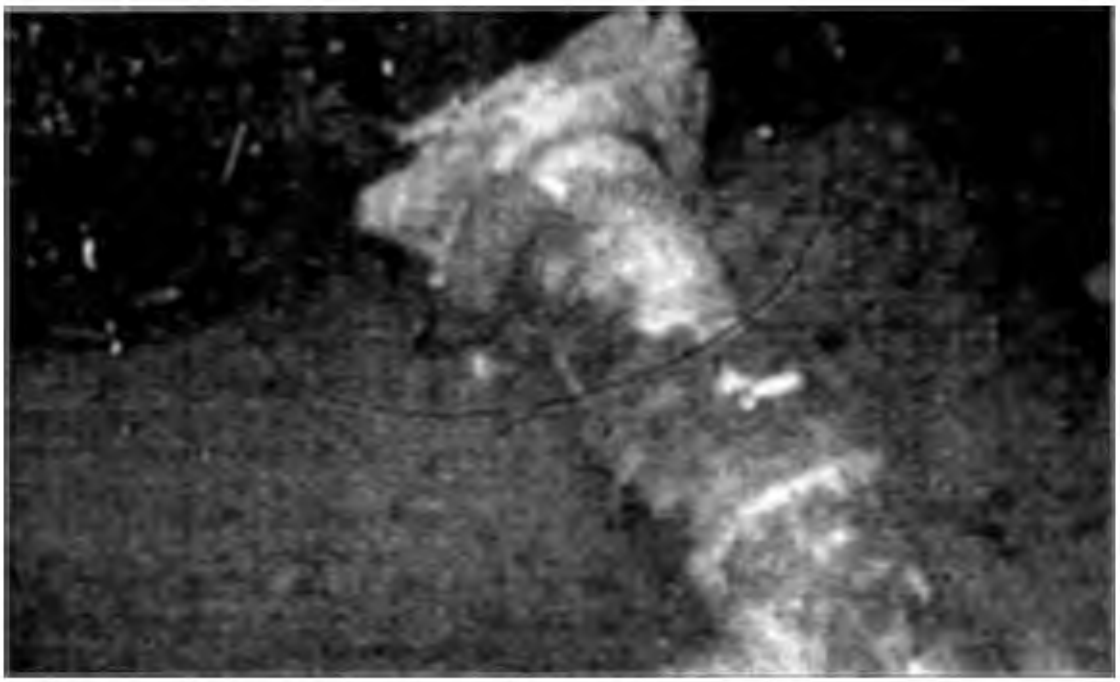
WEATHER: Sunny. Sunny.

zil Rahaman

INSPECTION (Check One): QUARTERLY ☐ SEMI-ANNUAL ☒ OTHER _____

ITEM	ADEQUATE (or YES)	REQUIRES MAINTENANCE	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
'ARD AND COMPONENTS			
'ucture	ADEQUATE ☒ YES ☐	REQUIRES MAINTENANCE ☐	
ı Valves	ADEQUATE ☒ YES ☐	REQUIRES MAINTENANCE ☐	
ıg	ADEQUATE ☒ YES ☐	REQUIRES MAINTENANCE ☐	
ıg Manhole "A"	ADEQUATE ☐ YES ☐	REQUIRES MAINTENANCE ☒	Around pipeing, Photo attached.
ıg Manhole "B"	ADEQUATE ☒ YES ☐	REQUIRES MAINTENANCE ☐	

Craig D., Landfill Personell Present for inspection of N.V.Structure.



1 OF 1

Table 4
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 3 FOR QUARTERLY FIELD INSPECTION OF LEACHATE MANAGEMENT SYSTEM

/6, 7/20/16 **WEATHER:** Sunnv. Sunnv. Sunnv.

zil Rahaman **INSPECTION (Check One):** QUARTERLY ☐ SEMI-ANNUAL ☒ OTHER _____

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
ID WASTE LANDFILL			
np Manhole/Air Ejector Pump			
dition	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Re: Table 4 Section 1.2,Chamber readings january to June 2016 Att.
ejector Pump	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0 Attached to table 3
Bio-Filter	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
mp Operation	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
ing Connections	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
or	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
/ Filter	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
or Shed	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
or Controls/Electrical			
on	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
Western Leachate Detection Manhole			
ate Detection Manhole	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Re: Engineering consulting firm examination report 9/20/2013 att.
ate Detection Vent -Filter	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Vent piping part of M.S.W. Gas collection system.
chate Detection Manhole	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
chate Detection Vent -filter	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Vent piping part of M.S.W. Gas collection system.

Table 4
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 3 FOR QUARTERLY FIELD INSPECTION
OF LEACHATE MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
D WASTE LANDFILL (Cont'd)			
ıd Piping (both primary and secondary systems)			
ɔ. 2 Condition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ɔ. 3 Condition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ɔ. 4 Condition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ɔ. 5 Condition	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Lable and Reconnect band clamp, Photo attached.
ɔ. 6 Condition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ɔ. 7 Condition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ɔ. 8 Condition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
n – Manhole No. 1			
ndition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
2 pipes)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ping	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
No. 1 and Wires	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
No. 2 and Wires	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
(4) and Wires	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ıtem	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
and Chain	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ıconnect Switches	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ring Vault			
ion	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
alves	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
and Wires	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

Table 4
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 3 FOR QUARTERLY FIELD INSPECTION OF LEACHATE MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
\GE AREA			
ırage Tanks			
Assoc. Pipe/Fitting/Valves	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Valves exercised 1x per. wk. and lubed Monthly.
Assoc. Pipe/Fitting/Valves	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Valves exercised 1x per. wk. and lubed Monthly.
Assoc. Pipe/Fitting/Valves	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Valves exercised 1x per. wk. and lubed Monthly.
Assoc. Pipe/Fitting/Valves	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Valves exercised 1x per. wk. and lubed Monthly.
Concrete Apron	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ver Sump in N.W. Corner	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Pits in N.W. Corner	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
t Sump and Pump			
:ion	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
and Wires	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Re: Table 3 Section 4.0
and Wires	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
:tem	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Not equipped.

Table 4
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 3 FOR QUARTERLY FIELD INSPECTION
OF LEACHATE MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
NERATOR BUILDING			
ın Manhole No. 1 Control Panel			
ion	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ights	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Re: Table 3 Section 3.0
onduit	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Control Panel			
tion	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Lights	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Re: Table 3 Section 4.0
Conduit	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
tion	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Lights	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Conduit	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Diesel Generator			
ondition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 5.0
‹	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
tch	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
:k	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Conduit	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
us			
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
: Sign	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ıter	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
iping, Valves & Disconnects	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
sher	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

Table 4

Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 3 FOR QUARTERLY FIELD INSPECTION OF LEACHATE MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
l Pump Station Manhole No. 9			
ıdition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
/el	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Re: Table 3 Section 6.0
l Leachate Detection Manhole No. 10			
ndition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ondary Collection System	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 6.0
ıd Piping			
. 11	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
. 12	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Repair Vent.Will be addressed in closure of C&D, Photo attached.
. 13	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
. 14	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
. 15	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

ı form along with Figure 5 – Leachate Management System Plan and Figure 6 – Leachate Storage Tank Flow Diagram by Golder Associates.
; listed under 1.0 – Leachate Conveyance require the inspector to enter a confined space.
:s to inspect for related to the concrete apron listed under 2.0 – Leachate Management: collect debris, structural integrity, cracking/spalling, signs of leachate

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

September 20, 2013

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

Re: Blydenburgh Road Landfill
MSW Phase II Leachate Collection
D&B No. 3103

Dear Mr. Varrichio

On May 9, 2013, the Islip Resource Recovery Agency performed an examination of the East Leachate Structure associated with the Phase II area of the capped and closed MSW Landfill. The video examination was performed by Precision Industrial Maintenance, Inc. using a closed circuit camera. The examination was observed by representatives of the Islip Resource Recovery Agency (IRRA), the New York State Department of Environmental Conservation (NYSDEC) and Dvirka and Bartilucci (D&B).

The East Leachate Structure is an eight foot diameter precast concrete chimney that extends from the top of the capped landfill down to the base of the lined, Phase II landfill area. The structure is reported to be approximately 145 to 150 feet deep. The chimney was constructed in segments to keep pace with the filling of the landfill. The base section was installed in the early 1980's as part of the construction of the landfill bottom liner system and connects to an influent pipe which introduces liquid to the structure from the leachate collection system. The chimney, above the base, was constructed by stacking additional precast sections on top of the lower segments. The precast segments have butt ends (flat ends) that sit on the adjacent section rather than tongue and groove joints.

During the operation of the landfill, the IRRA utilized the leachate structure to access the base of the landfill and remove leachate from the leachate collection

system. Over time, the ability to lower a pump down the entire depth of the 8 foot diameter structure became more difficult. In an effort to address these concerns, the IRRA had a video inspection of the structure performed in February 1988 to assess the ability to continue lowering pumping equipment to the bottom of the structure. The video examination revealed that the chimney structure was still continuous but that the overall structure was not plumb and that some misalignment of the concrete segments was being experienced. The 1988 video examination confirmed that the conditions in the structure would make it more difficult to lower a pump assembly to the bottom of the structure without becoming hung up on the ledges created at the segment misalignments.

The 1988 video shows the entrance of the leachate influent pipe entering the lower portion of the structure. The influent pipe is positioned such that there is a sump or wet well volume located below the elevation of the influent pipe. The height of the influent pipe above the structure invert is difficult to quantify but appears to be on the order of several feet.

In order to preserve the continued function of the leachate structure, a length of 6 inch steel pipe was inserted into the structure for its full depth in 1994 to create a riser pipe. The lowest portion of the riser pipe was fitted with a screen section. The pipe sections are joined by threaded and coupled joints. The bottom of the pipe column rests on the floor slab of the leachate structure. The pipe column extends up through the height of the precast structure but is not fastened to the structure. The pipe column terminates near the underside of the top slab.

The IRRA utilized the 6 inch riser pipe to facilitate the installation of a submersible pump at the bottom of the structure to allow the leachate to be pumped to grade for off-site disposal. In the period of March 1994 October 1994, a total of 910,000 gallons of leachate was removed from the structure. The operation of the pump was discontinued after a period of time where it was found that the structure was essentially dry and the pump could not encounter enough liquid to operate.

In October 2002, an examination of the east structure was performed as part of an effort to determine whether there was sufficient liquid in the structure to allow for the operation of a pumping system. The examination was performed using a closed circuit camera lowered into both the precast structure and the 6 inch riser pipe. The examination was performed by Pengat Construction and was observed by representatives from D&B.

The results of the October 2002 examination are presented in a letter report dated June 30, 2003. The October 2002 examination found the precast structure and the steel riser pipe to be competent and sufficient to allow pumping equipment to be lowered to the base of the structure. The examination also indicated that there was only a nominal accumulation of liquid in the base

of the structure and the depth of the liquid was confined to the limits of the sump area of the structure. The depth of liquid was not sufficient to allow for the operation of a submersible pump. This condition documented the site personnel's observations from 1994 that the submersible pump was no longer operational because there was no liquid available to be pumped.

The examination of the East Structure in May 2013 noted that there has been some shifting of the precast chimney since the October 2002 examination. In October 2002, the top of the 6 inch riser pipe was visible and accessible from a 16 inch diameter opening in the top slab of the structure. During the May 2013 examination, the top of the 6 inch riser pipe was not visible or accessible from the 16 inch diameter opening. In an effort to proceed with the work, the technicians were able to insert the camera into the top of the riser pipe by reaching through a smaller opening in the top slab and feeling for the top of the 6 inch pipe. However, this arrangement produced an S curve in the fiberglass push rod used to advance the camera. While the camera was able to be raised and lowered in the riser pipe, the flex in the push rod negated the accuracy and linearity of the distance counter on the camera assembly.

The camera was advanced down the 6 inch riser pipe for its entire length. The riser pipe shows signs of corrosion on the inside of the pipe as would be expected from a steel pipe in a moist environment. The degree of corrosion appears to be consistent with the corrosion observed in the October 2002 examination. The riser pipe appears to be in serviceable condition, with tight joints and no signs that would suggest that the integrity of the riser pipe is compromised. The camera was able to be advanced to the bottom of the riser pipe without difficulty.

Due to the nature of the camera equipment being pushed down the riser pipe on a flexible rod, it is difficult to assess if there is any slope or inclination to the riser pipe and whether the slope is consistent throughout the height of the riser pipe. However, as noted above, the camera was able to be advanced the length of the riser pipe without incident and would suggest that any pumping equipment required could also be installed without issue.

Using the distance counter associated with the camera, the riser pipe was found to be approximately 144 feet in length. The last, lowest section of the riser pipe is a screen section estimated to be approximately 5 feet in length. The liquid level was found to be at a depth of approximately 137 feet, suggesting a liquid depth of approximately 7 feet, however, the depth of liquid was difficult to judge due to the reduced control over the camera movements.

A second examination of the riser pipe (on the same day) found the length of the riser pipe to be approximately 148 feet with the liquid level encountered at approximately 141 feet. In both instances, the liquid level was found to suggest a depth of approximately 7 feet. Given the difficulties gaining access to the top of the pipe, the difference in the two overall length readings

was not considered significant. As noted, the depth of liquid was suggested to be on the order of 7 feet as indicated by the camera distance counter, but this suggested liquid depth appears to be inconsistent with the visual image provided by the camera. As viewed by the camera, the top of the screened interval was visible prior to the camera encountering the liquid surface. If the screen length is 5 feet, as previously reported, then the standing liquid depth must be less than 5 feet, rather than the 7 feet suggested by the camera distance counter.

Following the examination of the riser pipe, an attempt was made to examine the precast structure using the camera. The camera and its lighting were not as well suited for the increased size of the structure as compared to the riser pipe. The image was generally dark and impacted by condensation forming on the lens, rendering an image of limited value. Consequently, the camera served more as a probe or plumb bob rather than providing a visual examination of the precast structure. The camera was lowered to a depth of 127 feet but was not able to be advanced beyond that depth. It is assumed that the camera became hung up on a ledge formed between two precast sections. Given that the structure is not plumb and there are limited opportunities to access the structure through the top slab, the likelihood is high that a weight hanging plumb will encounter the wall of the structure. When the camera (weight) encounters a ledge, it is difficult to maneuver the camera to clear the obstruction.

The inability to reach the bottom of the precast structure is the specific concern that prompted the IRRA to install the 6 inch riser pipe in the first place. In light of the fact that the riser pipe is intact and serviceable, there is limited concern that the precast structure is not fully accessible.

As of this writing, the IRRA has had a new penetration core drilled through the top slab of the leachate structure in order to provide access to the top of the 6 inch riser pipe. The new opening allows for ready access to the top of the 6 inch riser pipe.

In contrast to the conditions experienced while using the camera to define the depth of the structure and the depth of the liquid, the new opening in the slab allows for direct readings to be taken. The overall depth of the 6 inch riser pipe has now been measured using a weighted tape and it has been determined that the depth from the bottom of the 6 inch riser pipe to the top of concrete of the top slab is 141 feet. Efforts to use a water level meter to measure the depth to the water surface were not definitive due the fact that the 6 inch riser pipe is not plumb and the tape has a tendency to adhere to the moist walls of the riser pipe.

Efforts to retrieve a water sample for the purpose of analysis were performed on August 14, 2013. The first baler had a minimal amount of liquid and it was discarded as a matter of routine. The second, third and fourth baler runs showed signs of sediment on the leading edge and provided no retrieved liquid, suggesting that the liquid depth was minimal. No sample could be obtained for the purpose of analysis.

The bubbler tubing was installed in the East Leachate Structure by landfill personnel on Thursday, August 15. D&B personnel were present at the site.

On August 15, a bubbler system was installed in the 6 inch riser pipe to allow the depth of liquid in the riser pipe and structure to be measured directly. The bubbler system consists of two bubbler tubes (3/8 inch O.D., ¼ inch I.D. polyethylene tubing) which were secured to the outside of a 1 inch diameter PVC, flush joint pipe. The depth of the 6 inch steel pipe was measured to be 141 feet from the bottom of the 6 inch pipe to the top of concrete on the top slab. The bubbler assembly is approximately 145 feet in length. The PVC pipe, bubbler tubes and a retrieval rope were installed in the 6 inch steel riser pipe and were confirmed to be resting on the bottom of the riser pipe (bottom of the structure).

The bubbler tubes were fastened to the PVC pipe with the tubing tip starting12 inches above (behind) the leading edge of the PVC pipe to keep the bubbler tubes above any sediment at the base of the 6 inch steel riser pipe. This 12 inch dimension will be added to any measurement obtained with the bubbler in order to provide a measure of the overall depth of liquid in the structure. The PVC pipe was set at the bottom of the 6 inch steel pipe by raising and lowering the bubbler assembly to ensure it was set at the bottom.

The bubbler was operated by Town and D&B personnel and was successfully used to measure a depth of submergence of 3 to 4 inches above the tip of the bubbler tube. This measurement indicates that the depth of liquid at the bottom of the structure is approximately 15 to 16 inches. This measurement should be considered as a reliable and repeatable measurement and should be used as reference for future readings.

The measured liquid depth of 15 to 16 inches is comparable to the depth of liquid that was observed in the October 2002 investigation of this chamber. At that time, the depth of liquid was estimated to be nominal, with insufficient depth to allow for pumping of the liquid. The current depth of liquid is also considered as nominal and it is clear that there is no source of inflow to the structure.

If it is assumed that the depth of liquid in the structure has increased by one foot over the duration of an 11 year period (October 2002 to August 2013) and one foot of depth in an 8 foot diameter structure is equivalent to a volume of 376 gallons, then liquid has been accumulating at a rate of approximately 34 gallons per year. Clearly, this rate of accumulation is not indicative of a landfill which is actively generating leachate. This nominal rate of accumulation should serve to document the adequacy of the existing landfill capping system.

The limited depth of leachate present in the East Leachate Structure (15 – 16 inches) will not allow for the pumping of the leachate with a pump suitable for the purpose. If the liquid depth

were found to be deeper, a pump such as a QED LDAP4+T would be appropriate for this service. The QED pump is pneumatically driven using compressed air, making it suitable for landfill/leachate applications. The pump is available in either a top loading or a bottom loading configuration. In either case, the pump is only capable of lowering the liquid level to a depth of approximately 28 inches. In this case, if the pump were installed in the 6 inch riser pipe, the operation of the pump would not be initiated since the liquid level is below the threshold depth.

In light of the fact that over a 10+ year period, the volume of accumulated liquid is not sufficient to allow for the operation of an application suitable pump, it should be concluded that pumping from the East Leachate Structure under the current conditions is not warranted.

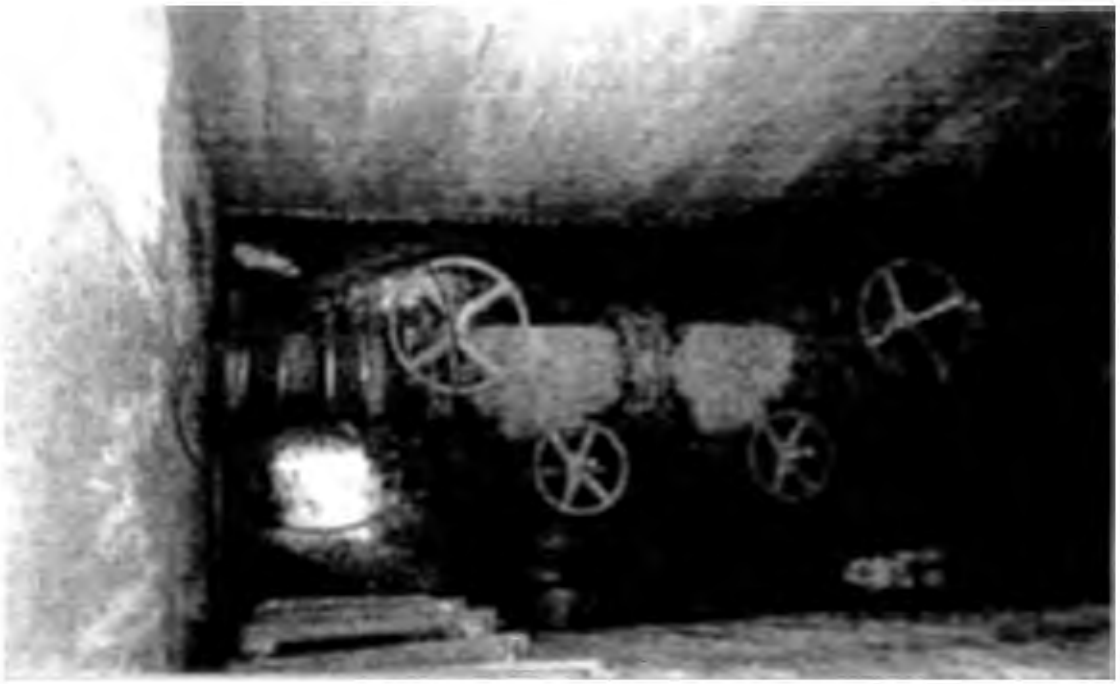
The installed bubbler system is proposed to remain in place to allow for future measurements of the liquid depth. Going forward, it is recommended that the Town of Islip take measurements of the liquid depth in the East Leachate Structure on a quarterly basis. The depth of liquid should be measured in the units of inches of water. The reported value should include the addition of twelve inches to the measured value to present the overall depth of liquid in the structure. A chronological record should be maintained to track if any increases in depth occur which may warrant or allow for pumping to be performed.

We trust the above is sufficient for your needs. Should you have any questions or comments regarding this matter, please feel free to contact this office.

Very truly yours,

Edward J. Reilly
Associate

EJR/nc
cc: A. Sanchez (IRRA)
R. Walka (D&B)
T. Fox (D&B)
K. Robins (D&B)
♦3103\EJR092013_AV



6/6/16 MANHOLE #12

Table 5
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 4 FOR QUARTERLY INSPECTION OF LANDFILL GAS (LFG) MANAGEMENT SYSTEM

, 7/20/16

WEATHER: Sunny, Sunny.

azil Rahaman

INSPECTION (Check One): QUARTERLY ☐ SEMI-ANNUAL ☒ OTHER _____

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
ve-grade)	*See Notes 1 & 2*		
/ell Head Assemblies			
ell A-01	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part III, Landfill Gas, VOC Monitoring Results,
ell A-02	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	and Well Condition Prepared by FPM Engineering Group, P.C.
ell A-03	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-04	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-05	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-06	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Tilted northeast (monitoring).
ell A-07	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-08	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-09	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-10	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-11	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-12	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-13	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-14	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-15	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Tilted east (monitoring).
ell A-16	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-17	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-18	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Headers			
: of "A" and "B" Blowers	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

Table 5
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 4 FOR QUARTERLY INSPECTION OF LANDFILL GAS (LFG) MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
ve-grade) cont.			
ion			
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ɔt (Water Separator)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
:er(s)	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Not inspected,System used for venting only.
Tank	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
lechanical	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
lding	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
ɜr	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
echanical	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
ng Wells			
ɜt	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part III, Landfill Gas, VOC Monitoring Results,
ɜt	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	and Well Condition Prepared by FPM Engineering Group, P.C.
ɜt	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ɜ	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
e-grade)			
ell Head Assemblies			
ell B-01	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Abandoned.
ell B-02	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Abandoned.
ell B-03	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Abandoned.
ell B-04	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part III, Landfill Gas, VOC Monitoring Results,
ell B-05	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	and Well Condition Prepared by FPM Engineering Group, P.C.
ell B-06	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

Table 5
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 4 FOR QUARTERLY INSPECTION OF
LANDFILL GAS (LFG) MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
ıve-grade)			
Well Head Assemblies (cont.)			
Well B-07	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-08	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-09	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-10	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-11	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-12	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-13	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-14	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-15	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ıe Headers			
: B-13 to B-15	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
: B-09 to B-13	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ader near B-09	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ader near B-14	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ader at Network West Blower Stations	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ion			
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
:er(s)	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Not inspected,System used for venting only.
ɔt (Water Separator)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Tank	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Mechanical	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
lding	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

Table 5
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 4 FOR QUARTERLY INSPECTION OF LANDFILL GAS (LFG) MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
bove-grade) cont.			
p	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
affle	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
rrester	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
l / Mechanical	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
itoring Wells			
riplet	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part III, Landfill Gas, VOC Monitoring Results,
riplet	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	and Well Condition Prepared by FPM Engineering Group,P.C
riplet	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
riplet	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
riplet	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
riplet	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Abandoned.
riplet	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Abandoned.
)ove-grade)			
l Well Head Assemblies			
Well C-01	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part III, Landfill Gas, VOC Monitoring Results,
Well C-02	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	and Well Condition Prepared by FPM Engineering Group,P.C
Well C-03	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-04	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-05	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-06	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-07	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-08	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-09	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-10	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-11	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-12	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

Table 5
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 4 FOR QUARTERLY INSPECTION OF LANDFILL GAS (LFG) MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
Above-grade)			
on Well Head Assemblies (cont.)			
on Well C-13	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
on Well C-14	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
on Well C-15	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
on Well C-16	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
irade Headers			
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Not equipped.
Station			
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
(s)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ut Pot (Water Separator)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
sate Tank	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
l / Mechanical	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
/ Building	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ip	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
affle	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
rrester	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
l / Mechanical	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.

Table 5
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 4 FOR QUARTERLY INSPECTION OF LANDFILL GAS (LFG) MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
ve-grade) cont.			
ring Wells			
let	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
let	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Cover bolts not secured due to daily inspection.
EMS			
tection at Red House	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Serviced 5/12/2016.
tection at Scale House	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Serviced 5/12/2016.
mping and detection			
and biofilters at south			
SW landfill	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	RE: Table 4 Section 1.2.
s	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Abandoned.
tection @ A-System			Serviced 5/12/2016.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	

personell peresent for inspection of, 1.0 A-SYSTEM Section 1.3, 1.4 , 2.0 B-SYSTEM Section 2.3, 2.4, and 3.0 C-SYSTEM Section 3.3, 3.4 .

on form along with Figure OM-5 – Single Line Diagram of Landfill Gas Management System by Golder Associates.
ction of well head assemblies, items/components to observe are extraction well casing, valve, lateral (flexible hose), etc.

Table 6
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 5 FOR GROUNDWATER MANAGEMENT SYSTEM

5/6/16 WEATHER: ?

irvika & Bartilucci. INSPECTION (Check One): QUARTERLY ☒ SEMI-ANNUAL ☐ OTHER ____

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
ıted for Quarterly Monitoring			
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part IV, first quarter well condition report`s
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	for Blydenburgh Road Landfill Complex,
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Summary of well status and deficiencies, Dated June 6, 2016.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	First quarter Phase 1 and Phase 2
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Cleanfills Landfill and Leachate Impoundment area,
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Summary of well status and deficiencies, Dated March 11, 2016.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Prepared by town consultants Dvirka & Bartilucci (D&B).
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	

Table 6
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 5 FOR GROUNDWATER MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
:ed for Quarterly Monitoring			
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part IV, first quarter well condition report`s
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	for Blydenburgh Road Landfill Complex,
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Summary of well status and deficiencies, Dated June 6, 2016.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	First quarter Phase 1 and Phase 2
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Cleanfills Landfill and Leachate Impoundment area,
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Summary of well status and deficiencies, Dated March 11, 2016.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Prepared by town consultants Dvirka & Bartilucci (D&B).
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	

Table 6
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 5 FOR GROUNDWATER MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
ted for Quarterly Monitoring			
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
o Assess Phase II Cleanfill Expansion			
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part IV, first quarter well condition report`s
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	for Blydenburgh Road Landfill Complex,
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Summary of well status and deficiencies, Dated June 6, 2016.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	First quarter Phase 1 and Phase 2
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Cleanfills Landfill and Leachate Impoundment area,
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Summary of well status and deficiencies, Dated March 11, 2016.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Prepared by town consultants Dvirka & Bartilucci (D&B)
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	

Table 7
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 6 FOR INSPECTION OF THE PERIMETER SITE SECURITY SYSTEM

64

WEATHER: Sunnv.

zil Rahaman

INSPECTION (Check One): QUARTERLY ☐ SEMI-ANNUAL ☒ OTHER _____

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
	See Notes 1 & 2		
:er	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
eter	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
:ter	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Ash monofill fence line. Awaiting Quote/Repairs.
eter	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
, CHAINS, AND LOCKS	*See Note 3*		
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Main Entrance	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Gate no longer exists.

Table 7
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 6 FOR INSPECTION OF THE PERIMETER SITE SECURITY SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
, AND LOCKS (cont.)			
;cale House	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Gate no longer exists.
k Farm	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ırner, Off Blydenburgh Rd.	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Gate no longer exists.
Hoffman Lane	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
IS	*See Note 4*		
ıneter	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
rimeter	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Readability and visibility concerns due to vegetation.
imeter	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Readability and visibility concerns due to vegetation.
rimeter	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Readability and visibility concerns due to vegetation.
:cess Gates			
ce	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
of Main Entrance	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Gate no longer exists.
of Scale House	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Gate no longer exists.
Tank Farm	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ɔrner – Blydenburgh Rd.	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Gate no longer exists.
416 Hoffman Lane	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

form along with Figure 2 – General Site Plan by Golder Associates.
ɔr the condition of posts, rails, chain-link fabric, barbed wire, animal burrows/soil erosion at bottom of fence, etc.
e condition of locks, chains and items mentioned in Note 2.
ıs for their existence and then for readability and visibility.
ld inspection form pertains to perimeter fence and warning signs; it does not include the video surveillance equipment at on-site office.

PART II

GROUNDWATER REMEDIATION

FACILITY

RELATED DOCUMENTS

GROUNDWATER REMEDIATION - POST CLOSURE MONITORING AND MAINTENANCE REPORT

SEMI-ANNUAL REPORT ENDING JUNE 2016

ATE	TOTAL EFFLUENT (gals.)	DATE	TOTAL EFFLUENT (gals.)	TOTAL PROCESSED IN TIME FRAME	AVERAGE DAILY VOLUME PROCESSED FOR TIME FRAME
1/2015	2,326,412,424	1/31/2016	2,332,920,730	6,508,306	209,945
l/2016	2,332,920,730	2/29/2016	2,339,095,903	6,175,173	212,937
)/2016	2,339,095,903	3/31/2016	2,348,807,970	9,712,067	313,292
L/2016	2,348,807,970	4/30/2016	2,358,588,625	9,780,655	326,022
)/2016	2,358,588,625	5/31/2016	2,368,479,070	9,890,445	319,047
l/2016	2,368,479,070	6/30/2016	2,377,979,770	9,500,700	316,690

:: Extraction Well #5 Repaired and back on line (OUT OF SERVICE 10/30/15 TO 3/3/16).

5/20/16 Extraction well #4 Experiencing diminishing flow concerns UNDER INVESTIGATION.

ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH LANDFILL
GROUNDWATER TREATMENT FACILITY
OPERATION AND MAINTENANCE MANUAL

FACILITY EQUIPMENT SERVICE RECORD

January through June 2016

WORK DONE

1/5, 3/28, 6/28/16	Aeration Tank Blower #1; Zerk Fittings Greased.
1/6, 4/6/16	Filter`s Air Compressor; Oil Change.
1/12/16	Filters #1 & 2 Flow Cells Assembly; Disassembled Cleaned & Reassembled.
1/13, 6/8/16	Filters #3 Flow Cells Assembly; Disassembled Cleaned & Reassembled.
/15, 2/29, 4/14, 5/31/16	Aeration Tank Blower #2; Zerk Fittings Greased.
2/8/16	Chemical Pump #2; Oil Change.
2/23, 6/1/16	Aeration Tank Blower #3; Zerk Fittings Greased.
2/26/16	Aeration Tank Blower #2; Oil Changed.
2/29/16	Chemical Pump #3; Oil Change.
3/11, 6/10/16	Blower Room Air Compressor; Oil Changed, Zerk Fittings Greased, Drive Belts Inspected.
3/18/16	Filters #1 Flow Cell Assembly; Disassembled Cleaned & Reassembled **(Inoperable).**
4/19/16	Filter Air Blower; Serviced, Change oil and lube Zerk Fittings.
4/28/16	Aeration Tank Blower #3; Oil Changed.
5/13/16	Chemical Pump #1; Oil Change.
5/13/16	Aeration Tanks Exhaust fan #1&2 Zerk Fittings Greased.
5/13/16	Aeration Tanks Blower Electric Motors #1, 2 & 3; Zerk Fittings Greased.
5/18/16	**Extraction Well`s #6 Chlorinated.**
5/23/16	Aeration Tank Blower #1; Oil Changed.
5/24/16	**Extraction Well`s #5 Chlorinated.**
6/15/16	Filters #2 Flow Cells Assembly; Disassembled Cleaned & Reassembled.

ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH LANDFILL
GROUNDWATER TREATMENT FACILITY
OPERATION AND MAINTENANCE MANUAL

FACILITY EQUIPMENT REPAIR RECORD

January through June 2016

DESCRIPTION OF REPAIRS

16	Filter Air Compressor Drive Belt Replaced With New, **DEFECTIVE.**
16	Extraction Well #5 Repaired and back on line **(OUT OF SERVICE 10/30/15 TO 3/3/16)**

PART IV

BLYDENBURGH ROAD LANDFILL COMPLEX

GROUNDWATER MONITORING REPORT SUMMARIES MARCH 11th, JUNE 6th, 2016

PREPARED BY

DVIRKA & BARTILUCCI TOWN CONSULTANTS

330 Crossways Park Drive, Woodbury, New York 11797
516-364-9890 • Fax: 516-364-9045 • www.db-eng.com

March 11, 2016

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

Re: Blydenburgh Road Landfill Complex
Phase 1 and Phase 2 Cleanfill Landfills and
Leachate Impoundment Area
Well Condition Report
D&B No. 3339-19B

Dear Mr. Varrichio:

Enclosed please find the First Quarter 2016 Well Condition Report for the Phase 1 and Phase 2 Cleanfill Landfills and Leachate Impoundment Area. This report consists of Table 1, which presents a summary of monitoring well status and deficiencies along with recommendations. In addition, individual monitoring well inspection checklists are included.

If you have any questions or require additional information, please contact me at (516) 364-9890, Ext. 3058.

Very truly yours,

Keith S. Robins

Keith S. Robins
Project Manager

KSR/nc
Enclosure
#3339KSR16_Ltr-01

Table 1

BLYDENBURGH ROAD LANDFILL COMPLEX
PHASE 1 AND PHASE 2 CLEANFILL LANDFILLS AND LEACHATE IMPOUNDMENT AREA
SUMMARY OF MONITORING WELL STATUS AND DEFICIENCIES
FIRST QUARTER 2016 SAMPLING EVENT

Surface Concrete Pad			Ponding Water Around Concrete Seal	Protective Flush-Mounted Cover/Standpipe Cover and Lock		Well Casing Alignment	Survey Measuring Point Marked	Well Labeled	Well Protected	Remarks and Recommendations
Intact	Cracked	Missing		Cover/Pipe - Intact	Lock - In Place					
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.

330 Crossways Park Drive, Woodbury, New York 11797
516-364-9890 • Fax 516-364-9045 • www.db-eng.com

June 6, 2016

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
Well Condition Report
D&B No. 3763-1B

Dear Mr. Varrichio:

Enclosed please find the First Quarter 2016 Well Condition Report for the Blydenburgh Road Landfill Complex. This report consists of Table 1, which presents a summary of monitoring well status and deficiencies along with recommendations. In addition, individual monitoring well inspection checklists are included.

If you have any questions or require additional information, please contact me.

Very truly yours,

Keith S. Robins

Keith S. Robins
Project Manager

KSR/nc
Enclosure
♦3763\KSR16_Ltr-01

Table 1

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY OF MONITORING WELL STATUS AND DEFICIENCIES
FIRST QUARTER 2016 SAMPLING EVENT

Surface Concrete Pad			Ponding of Water Around Concrete Seal	Protective Flush-Mounted Cover/Standpipe Cover and Lock		Well Casing Alignment	Survey Measuring Point Clearly Marked	Well Clearly Labeled	Well is Protected	Remarks and Recommendations
tact	Cracked	Missing		Cover/Pipe - Intact	Lock - In Place					
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Well inside vault	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Well inside vault	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	No	Straight	Yes	Yes	Yes	Well not locked. No action required. This well is not owned by the IRRA.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Yes		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.

Table 1 (continued)

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY OF MONITORING WELL STATUS AND DEFICIENCIES
FRIST QUARTER 2016 SAMPLING EVENT

Surface Concrete Pad			Ponding of Water Around Concrete Seal	Protective Flush-Mounted Cover/Standpipe Cover and Lock		Well Casing Alignment	Survey Measuring Point Clearly Marked	Well Clearly Labeled	Well is Protected	Remarks and Recommendations
act	Cracked	Missing		Cover/Pipe - Intact	Lock - In Place					
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			Yes	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			Yes	Yes	Yes	Straight	Yes	Yes	Yes	No action required.

MEMO

TO: Anthony J. Varrichio, P.E., Chief Engineer

FROM: Fazil Rahaman, Acting Ground Water Treatment Plant Operator

DATE: May 2, 2017

RE: **Blydenburgh Rd. L.F. 2016 2nd Half Semi-Annual Post Closure Monitoring and Maintenance Report**

Attached is the 2016, 2nd Half Semi-Annual Post Closure Monitoring and Maintenance Report for the M.S.W. Landfill, Ash Monofill, and Groundwater Remediation Facility for your review and comments.

CC: James Jahnke, Sanitation Site Crew Leader

POST CLOSURE MONITORING AND MAINTENANCE REPORT

FOR THE BLYDENBURGH ROAD M.S.W. LANDFILL

FORMER ASH MONOFILL

AND GROUNDWATER REMEDIATION

TABLE of CONTENTS

PART I

BLYDENBURGH ROAD M.S.W. LANDFILL

AND FORMER

ASH MONOFILL INSPECTION REPORT

TABLES

Table 2
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 1 FOR
MSW LANDFILL/ ASH MONOFILL COVERS AND SURFACE WATER MANAGEMENT SYSTEM

WEATHER: Sunny.

zil Rahaman

INSPECTION (Check One): QUARTERLY ☐ SEMI-ANNUAL ☒ OTHER _____

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
MONOFILL COVER	*See Notes 1 and 2*		
id Waste (MSW) Landfill			
ition of Vegetated Cover	ADEQUATE ☐ YES ☒	NEEDS ATTENTION ☐ NO ☐	Winter Conditions.
ition of Conc. Revetment	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Re: Section 1.2
odents/Animal Burrows	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	
ocal Distressed Vegetation	ADEQUATE ☐ YES ☒	NEEDS ATTENTION ☐ NO ☐	Winter Conditions.
y Vegetation (Trees)	ADEQUATE ☐ YES ☒	NEEDS ATTENTION ☐ NO ☐	
ition of Roads on Cover	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	
ocal Settlement	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	
eachate Seeps	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	
r cracks in cover	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☐	Not inspected, Due to obvious reasons.
e erosion	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	
cribe to right)	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☐	
t on MSW Landfill			
pe	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Movement all mat location`s, Will be addressed in closure of C&D
lope	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Movement all mat location`s, Same.
ope	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	Minimal Movement all mat location`s, Same.
ion of Vegetated Cover	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	Winter Conditions.Solar farm occupies approximately 15,000 sq. ft..
dents/Animal Burrows	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	
tressed Vegetation	ADEQUATE ☐ YES ☒	NEEDS ATTENTION ☐ NO ☐	Winter Conditions.

Table 2
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 1 FOR
MSW LANDFILL/ ASH MONOFILL COVERS AND SURFACE WATER MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
IONOFILL COVER (Cont'd)			
(Cont'd)			
dy Vegetation (Trees)	ADEQUATE ☐ YES ☒	NEEDS ATTENTION ☐ NO ☐	
lition of Roads on Cover	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	
ocal Settlement	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	
eachate Seeps	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	
r cracks in cover	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☐	Not inspected, Due to obvious reasons.
e erosion	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	
cribe to right)	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	
;	*See Note 3*		
ales			
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Settlement/Subsidence.
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Settlement/Subsidence.

Table 2
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 1 FOR
MSW LANDFILL/ ASH MONOFILL COVERS AND SURFACE WATER MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
S (Cont'd)			
vales (Cont'd)			
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Settlement/Subsidence.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Settlement/Subsidence.
s			
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Eriosion,Will be addressed in closure of C&D, 2 Photo att.
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
iannels			
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Cracking/spalling,Will be add. in closure of C &D, Photo att.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Blockage/debris. Cracking/spalling Same, 2Photo attached.
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

Table 2
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 1 FOR
MSW LANDFILL/ ASH MONOFILL COVERS AND SURFACE WATER MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
TURES	*See Note 4*		
ɔation Structure No. 1	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ɔation Structure No. 2	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ture No. 1	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ture No. 2	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ture No. 3	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
re-grade inspection)	*See Note 5*		
. CMP (Access Way)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
MP (Access Way & MH)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Pipe (Headwall)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
MP @ Down Chute No. 5	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Back pitched -Will be addressed in closure of C&D.
IS AND	*See Note 6*		
n No. 1 (#3)			
CMP Outfall	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Outfall	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Pipe Outfall	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
deslopes	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Erosion concerns, resulting from cleaning. Photo attached.
ttom	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	Under water.

Table 2
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 1 FOR
MSW LANDFILL/ ASH MONOFILL COVERS AND SURFACE WATER MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
NS AND S (CONT'D)			
sin No. 2	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
P Outfall	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ıle AR-2 Outfall	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Settlement/Subsidence.
ıle AF-3 Outfall	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Settlement/Subsidence.
deslopes	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Woody Vegetation.
ɔttom	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	Vegetation.

ı form along with Figure 4 – Landfill Cover and Surface Water Management System Plan by Golder Associates.
ɔ – Landfill and Monofill Covers, an example of local distressed vegetation is grass having a brown or black color, and characteristics typical of a leachate seep are own/black liquid or stain possibly with a strong odor.
ıs to be alert for and possibly noted relating to Item 2.0 – Open Channels: general condition, flow capability, settlement/subsidence, erosion, blockages/debris, animal burrowing, etc.
ıs to be alert for and possibly noted relating to Item 3.0 – Control Structures: general condition, flow capability, settlement/subsidence, blockages/debris, , cracking/spalling, etc.
ıs to be alert for and possible noted relating to Item 4.0 – Culverts (Above-grade inspection): condition of exterior of access way/manhole structures, condition of et and outlet, etc.
s to be alert for and possibly noted relating to Item 5.0 – Recharge Basins and Appurtenances: general condition, storage capability, sliding/soughing of burrowing, sediment accumulation, integrity of outfall structures, undermining of culvert barrel, etc.


DOWNCHUTE #1
1 OF 3


SHOT
HE CHARGE
BASIN #1

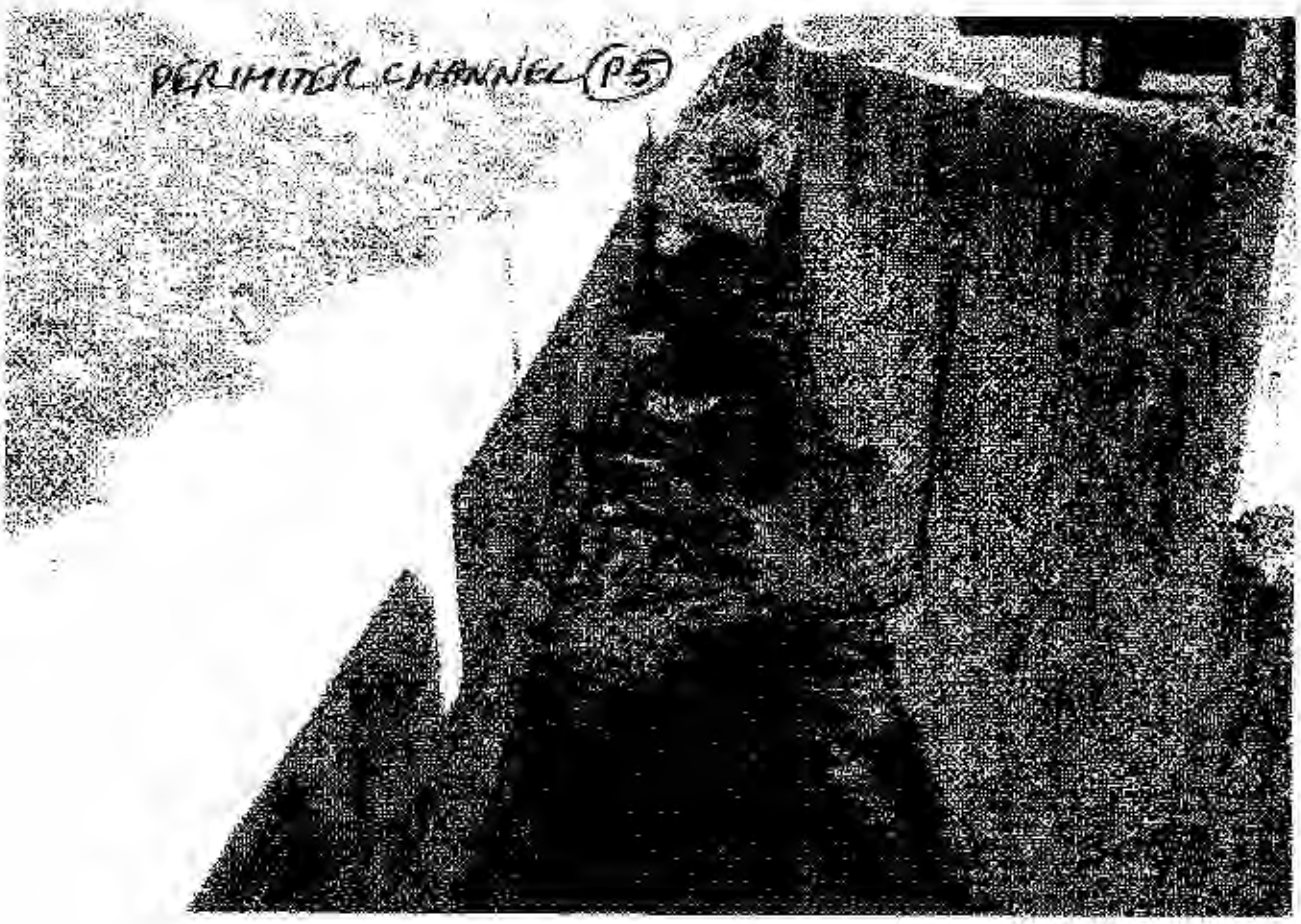

PERIMETER CHANNEL (P5)

Table 3
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 2 FOR WEEKLY FIELD INSPECTION
OF LEACHATE MANAGEMENT SYSTEM

7

WEATHER: Sunny.

zil Rahaman

INSPECTION (Check One): QUARTERLY ☐ SEMI-ANNUAL ☒ OTHER _____

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
IP MANHOLE			
sure - PSIG	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
ntake Filter Condition	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
Coolant/ Oil Level	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
Condensate Drainage	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
pply Filter Condition	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
pply Pressure – PSIG	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
Operation	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	----------
	Based upon engineering consulting firm, investigation and report		
	dated 6/30/03 Attached. The use of this system has been determined		
	unnecessary.		
AGE TANKS			
Tank No. 1 Level/Condition	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	3 1/2 Feet.
Tank No. 2 Level/Condition	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	3 1/2 Feet.
Tank No. 3 Level/Condition	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	3 1/2 Feet.
Tank No. 4 Level/Condition	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	3 1/2 Feet.
on System Operation	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Not inspected. Due to product containment.
Containment Area	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	
np Manhole	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	On going monitoring/pump out.
ıp Station	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	On going monitoring/pump out.

Table 3
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 2 FOR WEEKLY FIELD INSPECTION OF LEACHATE MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
MANHOLE NO. 1 – CONTROL PANEL			
rating Hours	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	New Meter (22.0 hrs.), Previous Meter(11,955).
antaneous Flow Rate - GPM	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	320 GPM
rating Hours	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	11,070 hrs.
antaneous Flow Rate - GPM	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	184 GPM
s	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	
uity Test	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Not Working.
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Generator	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	Pump #2 (lag) served by generator,Pump #1 (lead) not served.
lizer Reading - Gallons	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	8,427,889 gal.
CONTROL PANEL			
; Hours	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	10,690 hrs.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	
uity Test	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Not Working.
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Sump pump, pump`s to recharge basin however unable to pump up riser pipe to tank, LEAKING FROM DISCHARGE PIPE ELBOW IN CHAMBER.			

Table 3

Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 2 FOR WEEKLY FIELD INSPECTION
OF LEACHATE MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
NERATOR			
vel	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
nt Level	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
evel	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	3/8 full.
hecks:	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	
rformance	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Oil Pressure	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	50 PSI.
Motor Temperature	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	180 Degree Fahrenheit, (RAN FOR 30 MINUTES).
Voltage (underload)	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	240 Volts.
mperage (underload)	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	11 Amps.
lertz (underload)	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	61 Herts.
	Generator operable in hand mode only.TRANSFER SWITCH INOPERABLE.		
	Craig D., Landfill Personell Present for inspection.		
UMP STATION			
	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	
	ASH Collection Chamber Readings July through December 2016 Attached.		
	Prepared by Jim J. L.F. Site crew leaeder, being monitored/pumped .		

Friday	*1*	*3'6"*
Saturday	*2*	*na*
Sunday	*3*	*na*
Monday	*4*	*na*
Tuesday	*5*	*na*
Wednesday	*6*	*na*
Thursday	*7*	*3'2"*
Friday	*8*	*3'5"*
Saturday	*9*	*na*
Sunday	*10*	*na*
Monday	*11*	*3'6"*
Tuesday	*12*	*na*
Wednesday	*13*	*3'6"*
Thursday	*14*	*3'5"*
Friday	*15*	*3'8"*
Saturday	*16*	*na*
Sunday	*17*	*na*
Monday	*18*	*4'*
Tuesday	*19*	*4'*
Wednesday	*20*	*4'*
Thursday	*21*	*4'1"*
Friday	*22*	*4'2"*
Saturday	*23*	*na*
Sunday	*24*	*na*
Monday	*25*	*3'7"*
Tuesday	*26*	*3'6"*
Wednesday	*27*	*na*
Thursday	*28*	*3'5"*
Friday	*29*	*na*
Saturday	*30*	*na*
Sunday	*31*	*na*

MSW South Slope Pump Chamber

Date:

Level: ***N/A***

Monday	*1*	*4'2"*	
Tuesday	*2*	*4'*	
Wednesday	*3*	*3'10"*	*pumped*
Thursday	*4*	*3'10"*	
Friday	*5*	*4'*	
Saturday	*6*	*na*	
Sunday	*7*	*na*	
Monday	*8*	*3'6"*	
Tuesday	*9*	*3'5"*	
Wednesday	*10*	*na*	
Thursday	*11*	*na*	
Friday	*12*	*na*	
Saturday	*13*	*na*	
Sunday	*14*	*na*	
Monday	*15*	*4'3"*	
Tuesday	*16*	*4'2"*	
Wednesday	*17*	*4'2"*	
Thursday	*18*	*4'2"*	
Friday	*19*	*na*	
Saturday	*20*	*na*	
Sunday	*21*	*na*	
Monday	*22*	*3'6"*	
Tuesday	*23*	*3'5"*	
Wednesday	*24*	*4'*	
Thursday	*25*	*3'6"*	
Friday	*26*	*3'6"*	
Saturday	*27*	*na*	
Sunday	*28*	*na*	
Monday	*29*	*4'2"*	*pumped*
Tuesday	*30*	*3'10"*	
Wednesday	*31*	*4'*	

MSW South Slope Pump Chamber

Date: *4-Aug-16*

Level: *26"*

Thursday	*1*	*4'1"*	
Friday	*2*	*4'*	
Saturday	*3*	*na*	
Sunday	*4*	*na*	
Monday	*5*	*na*	
Tuesday	*6*	*4'3"*	*pumped*
Wednesday	*7*	*3'8"*	
Thursday	*8*	*4'*	
Friday	*9*	*4'*	*pumped*
Saturday	*10*	*na*	
Sunday	*11*	*na*	
Monday	*12*	*na*	
Tuesday	*13*	*na*	
Wednesday	*14*	*na*	
Thursday	*15*	*4'*	
Friday	*16*	*na*	
Saturday	*17*	*na*	
Sunday	*18*	*na*	
Monday	*19*	*4'*	
Tuesday	*20*	*4'*	
Wednesday	*21*	*4'3"*	
Thursday	*22*	*3'6"*	
Friday	*23*	*3'5"*	*pumped*
Saturday	*24*	*na*	
Sunday	*25*	*na*	
Monday	*26*	*3'6"*	
Tuesday	*27*	*3'7"*	
Wednesday	*28*	*3'6"*	
Thursday	*29*	*3'6"*	
Friday	*30*	*3'5"*	

MSW South Slope Pump Chamber

Date: *6-Sep-16*

Level: *36"*

Saturday	*1*	*na*	
Sunday	*2*	*na*	
Monday	*3*	*3'9"*	*pumped*
Tuesday	*4*	*3'3"*	*pumped*
Wednesday	*5*	*3'6"*	*pumped*
Thursday	*6*	*3'*	
Friday	*7*	*3'6"*	*pumped*
Saturday	*8*	*na*	
Sunday	*9*	*na*	
Monday	*10*	*na*	
Tuesday	*11*	*3'6"*	*pumped*
Wednesday	*12*	*3'4"*	
Thursday	*13*	*na*	
Friday	*14*	*na*	
Saturday	*15*	*na*	
Sunday	*16*	*na*	
Monday	*17*	*na*	
Tuesday	*18*	*3'6"*	*pumped*
Wednesday	*19*	*2'6"*	
Thursday	*20*	*3'*	
Friday	*21*	*2'6"*	
Saturday	*22*	*na*	
Sunday	*23*	*na*	
Monday	*24*	*3'6"*	*pumped*
Tuesday	*25*	*na*	
Wednesday	*26*	*na*	
Thursday	*27*	*na*	
Friday	*28*	*na*	
Saturday	*29*	*na*	
Sunday	*30*	*na*	
Monday	*31*	*3'6"*	*pumped*

MSW South Slope Pump Chamber

Date:	*5-Oct-16*
Level:	*34"*

Tuesday	*1*	*3'*	
Wednesday	*2*	*3'3"*	
Thursday	*3*	*3'3"*	*pumped*
Friday	*4*	*3'7"*	
Saturday	*5*	*na*	
Sunday	*6*	*na*	
Monday	*7*	*na*	
Tuesday	*8*	*na*	
Wednesday	*9*	*3'6"*	
Thursday	*10*	*na*	
Friday	*11*	*na*	
Saturday	*12*	*na*	
Sunday	*13*	*na*	
Monday	*14*	*4'*	
Tuesday	*15*	*4'*	
Wednesday	*16*	*4'*	
Thursday	*17*	*4'*	
Friday	*18*	*4'*	
Saturday	*19*	*na*	
Sunday	*20*	*na*	
Monday	*21*	*3.5*	
Tuesday	*22*	*3.5*	
Wednesday	*23*	*3.6*	
Thursday	*24*	*na*	
Friday	*25*	*na*	
Saturday	*26*	*na*	
Sunday	*27*	*na*	
Monday	*28*	*3.6*	
Tuesday	*29*	*3.8*	
Wednesday	*30*	*3.8*	*pumped*

MSW South Slope Pump Chamber

Date: *28-Nov-16*

Level: *36"*

Thursday	*1*	*3'5"*	
Friday	*2*	*na*	
Saturday	*3*	*na*	
Sunday	*4*	*na*	
Monday	*5*	*na*	
Tuesday	*6*	*4'*	
Wednesday	*7*	*3'7"*	
Thursday	*8*	*3'6"*	
Friday	*9*	*3'6"*	
Saturday	*10*	*na*	
Sunday	*11*	*na*	
Monday	*12*	*na*	
Tuesday	*13*	*3'10"*	
Wednesday	*14*	*3'10"*	
Thursday	*15*	*3'10"*	*pumped*
Friday	*16*	*4'*	
Saturday	*17*	*na*	
Sunday	*18*	*na*	
Monday	*19*	*3'10"*	
Tuesday	*20*	*3'10"*	
Wednesday	*21*	*3'5"*	
Thursday	*22*	*3'6"*	
Friday	*23*	*na*	
Saturday	*24*	*na*	
Sunday	*25*	*na*	
Monday	*26*	*na*	
Tuesday	*27*	*3'6"*	
Wednesday	*28*	*3.6*	
Thursday	*29*	*3'6"*	
Friday	*30*	*3'6"*	
Saturday	*31*	*na*	

MSW South Slope Pump Chamber

Date: ***19-Dec-16***

Level: ***32"***

Table 3A
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION OF CONDENSATE COLLECTION SYSTEM FOR GAS SYSTEMS

7

WEATHER: Sunny.

zil Rahaman

INSPECTION (Check One): QUARTERLY ☐ SEMI-ANNUAL ☒ OTHER _____

ITEM	ADEQUATE (or YES)	REQUIRES MAINTENANCE	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
ARD AND COMPONENTS			
ucture	ADEQUATE ☒ YES☐	REQUIRES MAINTENANCE ☐	
ı Valves	ADEQUATE ☒ YES☐	REQUIRES MAINTENANCE ☐	
g	ADEQUATE ☒ YES☐	REQUIRES MAINTENANCE ☐	
ıg Manhole "A"	ADEQUATE ☐ YES☐	REQUIRES MAINTENANCE ☒	Precast around Condensate Piping in chamber, Photo attached.
:g Manhole "B"	ADEQUATE ☒ YES☐	REQUIRES MAINTENANCE ☐	
	V-201 Combine Header Valve Inoperable, REQUIRES MAINTENANCE.		
	V-203 Phase 111 Field Valve Inoperable , REQUIRES MAINTENANCE.		
	Craig D., Landfill Personell Present for inspection of N.V.Structure.		

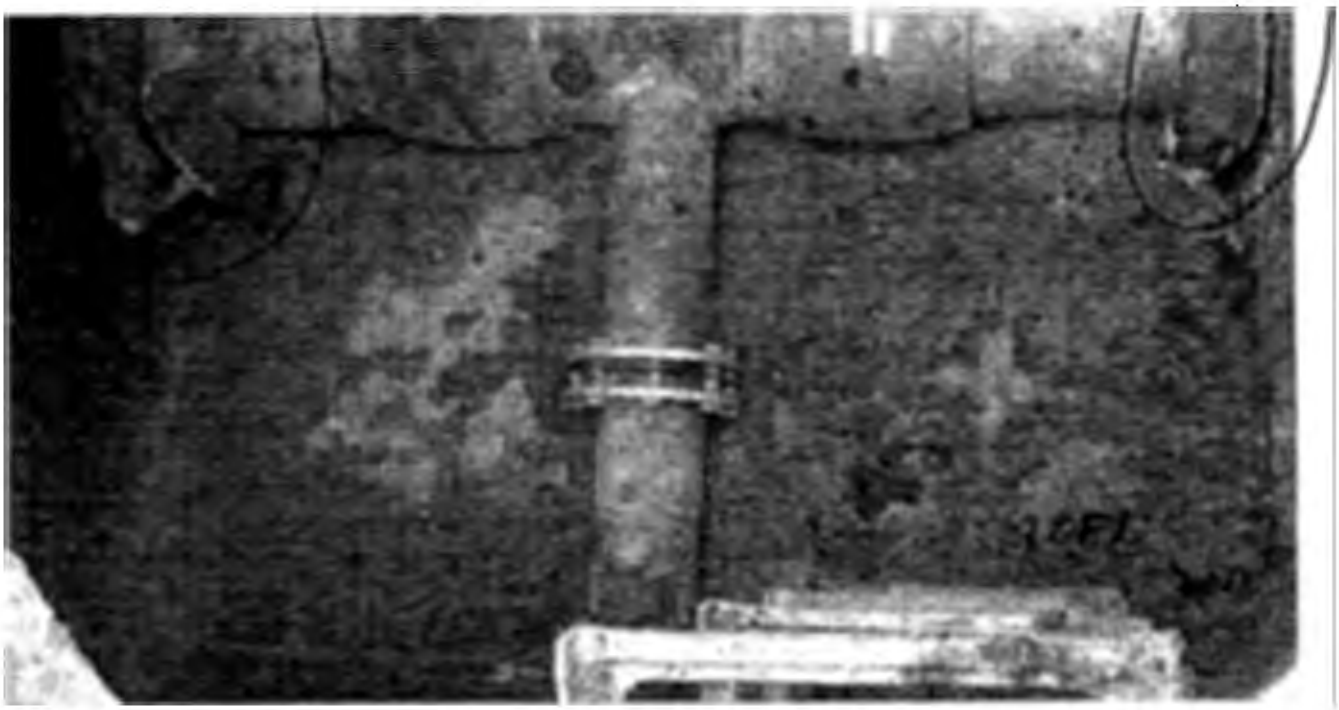


Table 4
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 3 FOR QUARTERLY FIELD INSPECTION
OF LEACHATE MANAGEMENT SYSTEM

3/22/17 WEATHER: Sunny,Sunny.

ızil Rahaman INSPECTION (Check One): QUARTERLY ☐ SEMI-ANNUAL ☒ OTHER _____

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
.ID WASTE LANDFILL			
mp Manhole/Air Ejector Pump			
ıdition	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Re: Table 4 Section 1.2, Leachate Readings July to Dec. 2016
Ejector Pump	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0 Attached to table 4
Bio-Filter	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
ımp Operation	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
›ing Connections	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
sor	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
'/ Filter	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
sor Shed	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
sor Controls/Electrical on	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
Western Leachate Detection Manhole			
hate Detection Manhole	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Engineering consulting firm examination report 9/20/2013 att.
hate Detection Vent ›-Filter	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Vent piping part of M.S.W. Gas collection system.
chate Detection Manhole	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Re: Table 3 Section 1.0
chate Detection Vent -filter	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Vent piping part of M.S.W. Gas collection system.

Table 4
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 3 FOR QUARTERLY FIELD INSPECTION
OF LEACHATE MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
D WASTE LANDFILL (Cont'd)			
ıd Piping (both primary and secondary systems)			
o. 2 Condition	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Pump out standing product. Photo attached.
o. 3 Condition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
o. 4 Condition	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Hatch hinge Rusted/Broken.
o. 5 Condition	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Pump out standing product,Reconnect band & clamp. 2 Photo att.
o. 6 Condition	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Pump out standing product, Reconnect band & clamp. 2 Photo att.
o. 7 Condition	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Pump out standing product,Reconnect band & clamp. 2 Photo att.
o. 8 Condition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ın – Manhole No. 1			
ndition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
(2 pipes)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ping	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
No. 1 and Wires	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
No. 2 and Wires	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
(4) and Wires	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
stem	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
' and Chain	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
sconnect Switches	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ring Vault			
tion	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	18 Inches standing product. Photo attached.
'alves	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
and Wires	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

Table 4
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 3 FOR QUARTERLY FIELD INSPECTION OF LEACHATE MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
AGE AREA			
rage Tanks			
Assoc. Pipe/Fitting/Valves	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	Valves exercised 1x per. wk. and lubed Bi - monthly.
Assoc. Pipe/Fitting/Valves	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	Valves exercised 1x per. wk. and lubed Bi - monthly.
Assoc. Pipe/Fitting/Valves	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	Valves exercised 1x per. wk. and lubed Bi - monthly.
Assoc. Pipe/Fitting/Valves	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	Valves exercised 1x per. wk. and lubed Bi - monthly.
Concrete Apron	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	
ver Sump in N.W. Corner	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	
Pits in N.W. Corner	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	
t Sump and Pump			
ion	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	
	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	LEAKING FROM DISCHARGE PIPE ELBOW IN CHAMBER.
and Wires	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Re: Table 3 Section 4.0
and Wires	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	
tem	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	Not equipped.

Table 4
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 3 FOR QUARTERLY FIELD INSPECTION OF LEACHATE MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
NERATOR BUILDING			
n Manhole No. 1 Control Panel			
ion	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ights	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Re: Table 3 Section 3.0
onduit	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Control Panel			
ion	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ights	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Re: Table 3 Section 4.0
onduit	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ion	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ights	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
onduit	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
iesel Generator			
ondition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ch	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Inoperable Re: Table 3 Section 5.0
k	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
onduit	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
IS			
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Sign	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
er	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ping, Valves & Disconnects	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
her	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

Table 4

Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 3 FOR QUARTERLY FIELD INSPECTION
OF LEACHATE MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
ll Pump Station Manhole No. 9			
ndition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
vel	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Re: Table 3 Section 6.0
ll Leachate Detection Manhole No. 10			
ndition	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
condary Collection System	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Re: Table 3 Section 6.0
nd Piping			
). 11	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
). 12	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Will be addressed in closure of C&D. Photo attached.
). 13	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
). 14	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
). 15	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

n form along with Figure 5 – Leachate Management System Plan and Figure 6 – Leachate Storage Tank Flow Diagram by Golder Associates.
s listed under 1.0 – Leachate Conveyance require the inspector to enter a confined space.
es to inspect for related to the concrete apron listed under 2.0 – Leachate Management: collect debris, structural integrity, cracking/spalling, signs of leachate

July		Measured	Taken	Comments
Friday	1	na		
Saturday	2	na		
Sunday	3	na		
Monday	4	na		
Tuesday	5	na		
Wednesday	6	13		
Thursday	7	15		
Friday	8	15		
Saturday	9	na		
Sunday	10	na		
Monday	11	14		
Tuesday	12	na		
Wednesday	13	14		
Thursday	14	5	Pumped to 1"	
Friday	15	14		
Saturday	16	na		
Sunday	17	na		
Monday	18	17		
Tuesday	19	18		
Wednesday	20	18		
Thursday	21	18		
Friday	22	18		
Saturday	23	na		
Sunday	24	na		
Monday	25	na		
Tuesday	26	7	Pumped to 1"	
Wednesday	27	na		
Thursday	28	6		
Friday	29	na		
Saturday	30	na		
Sunday	31	na		

Brooklyn Union Gas-Cumulative (ft3)	
6/30/2016	73,161.00
7/29/2016	73,161.00

Total Used Gas : 0.00 (ft3)

August		Measured	Taken	Comments
Monday	1	19		
Tuesday	2	18		
Wednesday	3	18		
Thursday	4	18		
Friday	5	18		
Saturday	6	na		
Sunday	7	na		
Monday	8	3	Pumped to 1"	
Tuesday	9	3		
Wednesday	10	15	Pumped to 1"	
Thursday	11	na		
Friday	12	na		
Saturday	13	na		
Sunday	14	na		
Monday	15	6		
Tuesday	16	8		
Wednesday	17	9		
Thursday	18	8		
Friday	19	11		
Saturday	20	na		
Sunday	21	na		
Monday	22	6		
Tuesday	23	6		
Wednesday	24	13		
Thursday	25	6		
Friday	26	6		
Saturday	27	na		
Sunday	28	na		
Monday	29	14		
Tuesday	30	14		
Wednesday	31	14		

Brooklyn Union Gas-Cumulative (ft3)	
7/29/2016	73,161.00
8/31/2016	73,165.00

Total Used Gas : 4.00 (ft3)

September		Measured	Taken	Comments
Thursday	1	14		
Friday	2	16		
Saturday	3	na		
Sunday	4	na		
Monday	5	na		
Tuesday	6	17		
Wednesday	7	18		
Thursday	8	18		
Friday	9	18		
Saturday	10	na		
Sunday	11	na		
Monday	12	na		
Tuesday	13	na		
Wednesday	14	na		
Thursday	15	14		
Friday	16	na		
Saturday	17	na		
Sunday	18	na		
Monday	19	18		
Tuesday	20	18		
Wednesday	21	18		
Thursday	22	18		
Friday	23	16	Pumped to 1"	
Saturday	24	na		
Sunday	25	na		
Monday	26	7		
Tuesday	27	7		
Wednesday	28	8		
Thursday	29	8		
Friday	30	8		

Brooklyn Union Gas-Cumulative (ft3)	
8/31/2016	73,165.00
9/30/2016	73,167.00

Total Used Gas : 2.00 (ft3)

October		Measured	Taken	Comments
Saturday	1	na		
Sunday	2	na		
Monday	3	16		
Tuesday	4	16		
Wednesday	5	16		
Thursday	6	16		
Friday	7	16		
Saturday	8	na		
Sunday	9	na		
Monday	10	na		
Tuesday	11	16		
Wednesday	12	14		
Thursday	13	na		
Friday	14	na		
Saturday	15	na		
Sunday	16	na		
Monday	17	na		
Tuesday	18	18		
Wednesday	19	15		
Thursday	20	17		
Friday	21	15		
Saturday	22	na		
Sunday	23	na		
Monday	24	15		
Tuesday	25	na		
Wednesday	26	na		
Thursday	27	na		
Friday	28	na		
Saturday	29	na		
Sunday	30	na		
Monday	31	16		

Brooklyn Union Gas-Cumulative (ft3)

9/30/2016	*73,167.00*
10/23/2016	*73,169.00*

Total Used Gas : ***2.00 (ft3)***

November		Measured	Taken	Comments
Tuesday	1	15		
Wednesday	2	15		
Thursday	3	15		
Friday	4	13		
Saturday	5	na		
Sunday	6	na		
Monday	7	na		
Tuesday	8	na		
Wednesday	9	14		
Thursday	10	14		
Friday	11	na		
Saturday	12	na		
Sunday	13	na		
Monday	14	11		
Tuesday	15	na		
Wednesday	16	10		
Thursday	17	15		
Friday	18	14		
Saturday	19	na		
Sunday	20	na		
Monday	21	16		
Tuesday	22	15		
Wednesday	23	15		
Thursday	24	na		
Friday	25	na		
Saturday	26	na		
Sunday	27	na		
Monday	28	14		
Tuesday	29	14		
Wednesday	30	14		

Brooklyn Union Gas-Cumulative (ft3)	
10/23/2016	73,169.00
11/28/2016	73,172.00

Total Used Gas : 3.00 (ft3)

December		Measured	Taken	Comments
Thursday	1	15		
Friday	2	na		
Saturday	3	na		
Sunday	4	na		
Monday	5	na		
Tuesday	6	14		
Wednesday	7	16		
Thursday	8	15		
Friday	9	15		
Saturday	10	na		
Sunday	11	na		
Monday	12	na		
Tuesday	13	15		
Wednesday	14	15		
Thursday	15	15		
Friday	16	na		
Saturday	17	na		
Sunday	18	na		
Monday	19	15		
Tuesday	20	15	pumped	
Wednesday	21	7		
Thursday	22	8		
Friday	23	na		
Saturday	24	na		
Sunday	25	na		
Monday	26	na		
Tuesday	27	na		
Wednesday	28	8		
Thursday	29	8		
Friday	30	13		
Saturday	31	na		

Brooklyn Union Gas-Cumulative (ft3)

11/28/2016	*73,172.00*
12/30/2016	*73,176.00*

Total Used Gas : ***4.00 (ft3)***

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

September 20, 2013

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

Re: Blydenburgh Road Landfill
MSW Phase II Leachate Collection
D&B No. 3103

Dear Mr. Varrichio

On May 9, 2013, the Islip Resource Recovery Agency performed an examination of the East Leachate Structure associated with the Phase II area of the capped and closed MSW Landfill. The video examination was performed by Precision Industrial Maintenance, Inc. using a closed circuit camera. The examination was observed by representatives of the Islip Resource Recovery Agency (IRRA), the New York State Department of Environmental Conservation (NYSDEC) and Dvirka and Bartilucci (D&B).

The East Leachate Structure is an eight foot diameter precast concrete chimney that extends from the top of the capped landfill down to the base of the lined, Phase II landfill area. The structure is reported to be approximately 145 to 150 feet deep. The chimney was constructed in segments to keep pace with the filling of the landfill. The base section was installed in the early 1980's as part of the construction of the landfill bottom liner system and connects to an influent pipe which introduces liquid to the structure from the leachate collection system. The chimney, above the base, was constructed by stacking additional precast sections on top of the lower segments. The precast segments have butt ends (flat ends) that sit on the adjacent section rather than tongue and groove joints.

During the operation of the landfill, the IRRA utilized the leachate structure to access the base of the landfill and remove leachate from the leachate collection

system. Over time, the ability to lower a pump down the entire depth of the 8 foot diameter structure became more difficult. In an effort to address these concerns, the IRRA had a video inspection of the structure performed in February 1988 to assess the ability to continue lowering pumping equipment to the bottom of the structure. The video examination revealed that the chimney structure was still continuous but that the overall structure was not plumb and that some misalignment of the concrete segments was being experienced. The 1988 video examination confirmed that the conditions in the structure would make it more difficult to lower a pump assembly to the bottom of the structure without becoming hung up on the ledges created at the segment misalignments.

The 1988 video shows the entrance of the leachate influent pipe entering the lower portion of the structure. The influent pipe is positioned such that there is a sump or wet well volume located below the elevation of the influent pipe. The height of the influent pipe above the structure invert is difficult to quantify but appears to be on the order of several feet.

In order to preserve the continued function of the leachate structure, a length of 6 inch steel pipe was inserted into the structure for its full depth in 1994 to create a riser pipe. The lowest portion of the riser pipe was fitted with a screen section. The pipe sections are joined by threaded and coupled joints. The bottom of the pipe column rests on the floor slab of the leachate structure. The pipe column extends up through the height of the precast structure but is not fastened to the structure. The pipe column terminates near the underside of the top slab.

The IRRA utilized the 6 inch riser pipe to facilitate the installation of a submersible pump at the bottom of the structure to allow the leachate to be pumped to grade for off-site disposal. In the period of March 1994 October 1994, a total of 910,000 gallons of leachate was removed from the structure. The operation of the pump was discontinued after a period of time where it was found that the structure was essentially dry and the pump could not encounter enough liquid to operate.

In October 2002, an examination of the east structure was performed as part of an effort to determine whether there was sufficient liquid in the structure to allow for the operation of a pumping system. The examination was performed using a closed circuit camera lowered into both the precast structure and the 6 inch riser pipe. The examination was performed by Pengat Construction and was observed by representatives from D&B.

The results of the October 2002 examination are presented in a letter report dated June 30, 2003. The October 2002 examination found the precast structure and the steel riser pipe to be competent and sufficient to allow pumping equipment to be lowered to the base of the structure. The examination also indicated that there was only a nominal accumulation of liquid in the base

of the structure and the depth of the liquid was confined to the limits of the sump area of the structure. The depth of liquid was not sufficient to allow for the operation of a submersible pump. This condition documented the site personnel's observations from 1994 that the submersible pump was no longer operational because there was no liquid available to be pumped.

The examination of the East Structure in May 2013 noted that there has been some shifting of the precast chimney since the October 2002 examination. In October 2002, the top of the 6 inch riser pipe was visible and accessible from a 16 inch diameter opening in the top slab of the structure. During the May 2013 examination, the top of the 6 inch riser pipe was not visible or accessible from the 16 inch diameter opening. In an effort to proceed with the work, the technicians were able to insert the camera into the top of the riser pipe by reaching through a smaller opening in the top slab and feeling for the top of the 6 inch pipe. However, this arrangement produced an S curve in the fiberglass push rod used to advance the camera. While the camera was able to be raised and lowered in the riser pipe, the flex in the push rod negated the accuracy and linearity of the distance counter on the camera assembly.

The camera was advanced down the 6 inch riser pipe for its entire length. The riser pipe shows signs of corrosion on the inside of the pipe as would be expected from a steel pipe in a moist environment. The degree of corrosion appears to be consistent with the corrosion observed in the October 2002 examination. The riser pipe appears to be in serviceable condition, with tight joints and no signs that would suggest that the integrity of the riser pipe is compromised. The camera was able to be advanced to the bottom of the riser pipe without difficulty.

Due to the nature of the camera equipment being pushed down the riser pipe on a flexible rod, it is difficult to assess if there is any slope or inclination to the riser pipe and whether the slope is consistent throughout the height of the riser pipe. However, as noted above, the camera was able to be advanced the length of the riser pipe without incident and would suggest that any pumping equipment required could also be installed without issue.

Using the distance counter associated with the camera, the riser pipe was found to be approximately 144 feet in length. The last, lowest section of the riser pipe is a screen section estimated to be approximately 5 feet in length. The liquid level was found to be at a depth of approximately 137 feet, suggesting a liquid depth of approximately 7 feet, however, the depth of liquid was difficult to judge due to the reduced control over the camera movements.

A second examination of the riser pipe (on the same day) found the length of the riser pipe to be approximately 148 feet with the liquid level encountered at approximately 141 feet. In both instances, the liquid level was found to suggest a depth of approximately 7 feet. Given the difficulties gaining access to the top of the pipe, the difference in the two overall length readings

was not considered significant. As noted, the depth of liquid was suggested to be on the order of 7 feet as indicated by the camera distance counter, but this suggested liquid depth appears to be inconsistent with the visual image provided by the camera. As viewed by the camera, the top of the screened interval was visible prior to the camera encountering the liquid surface. If the screen length is 5 feet, as previously reported, then the standing liquid depth must be less than 5 feet, rather than the 7 feet suggested by the camera distance counter.

Following the examination of the riser pipe, an attempt was made to examine the precast structure using the camera. The camera and its lighting were not as well suited for the increased size of the structure as compared to the riser pipe. The image was generally dark and impacted by condensation forming on the lens, rendering an image of limited value. Consequently, the camera served more as a probe or plumb bob rather than providing a visual examination of the precast structure. The camera was lowered to a depth of 127 feet but was not able to be advanced beyond that depth. It is assumed that the camera became hung up on a ledge formed between two precast sections. Given that the structure is not plumb and there are limited opportunities to access the structure through the top slab, the likelihood is high that a weight hanging plumb will encounter the wall of the structure. When the camera (weight) encounters a ledge, it is difficult to maneuver the camera to clear the obstruction.

The inability to reach the bottom of the precast structure is the specific concern that prompted the IRRA to install the 6 inch riser pipe in the first place. In light of the fact that the riser pipe is intact and serviceable, there is limited concern that the precast structure is not fully accessible.

As of this writing, the IRRA has had a new penetration core drilled through the top slab of the leachate structure in order to provide access to the top of the 6 inch riser pipe. The new opening allows for ready access to the top of the 6 inch riser pipe.

In contrast to the conditions experienced while using the camera to define the depth of the structure and the depth of the liquid, the new opening in the slab allows for direct readings to be taken. The overall depth of the 6 inch riser pipe has now been measured using a weighted tape and it has been determined that the depth from the bottom of the 6 inch riser pipe to the top of concrete of the top slab is 141 feet. Efforts to use a water level meter to measure the depth to the water surface were not definitive due the fact that the 6 inch riser pipe is not plumb and the tape has a tendency to adhere to the moist walls of the riser pipe.

Efforts to retrieve a water sample for the purpose of analysis were performed on August 14, 2013. The first baler had a minimal amount of liquid and it was discarded as a matter of routine. The second, third and fourth baler runs showed signs of sediment on the leading edge and provided no retrieved liquid, suggesting that the liquid depth was minimal. No sample could be obtained for the purpose of analysis.

The bubbler tubing was installed in the East Leachate Structure by landfill personnel on Thursday, August 15. D&B personnel were present at the site.

On August 15, a bubbler system was installed in the 6 inch riser pipe to allow the depth of liquid in the riser pipe and structure to be measured directly. The bubbler system consists of two bubbler tubes (3/8 inch O.D., ¼ inch I.D. polyethylene tubing) which were secured to the outside of a 1 inch diameter PVC, flush joint pipe. The depth of the 6 inch steel pipe was measured to be 141 feet from the bottom of the 6 inch pipe to the top of concrete on the top slab. The bubbler assembly is approximately 145 feet in length. The PVC pipe, bubbler tubes and a retrieval rope were installed in the 6 inch steel riser pipe and were confirmed to be resting on the bottom of the riser pipe (bottom of the structure).

The bubbler tubes were fastened to the PVC pipe with the tubing tip starting12 inches above (behind) the leading edge of the PVC pipe to keep the bubbler tubes above any sediment at the base of the 6 inch steel riser pipe. This 12 inch dimension will be added to any measurement obtained with the bubbler in order to provide a measure of the overall depth of liquid in the structure. The PVC pipe was set at the bottom of the 6 inch steel pipe by raising and lowering the bubbler assembly to ensure it was set at the bottom.

The bubbler was operated by Town and D&B personnel and was successfully used to measure a depth of submergence of 3 to 4 inches above the tip of the bubbler tube. This measurement indicates that the depth of liquid at the bottom of the structure is approximately 15 to 16 inches. This measurement should be considered as a reliable and repeatable measurement and should be used as reference for future readings.

The measured liquid depth of 15 to 16 inches is comparable to the depth of liquid that was observed in the October 2002 investigation of this chamber. At that time, the depth of liquid was estimated to be nominal, with insufficient depth to allow for pumping of the liquid. The current depth of liquid is also considered as nominal and it is clear that there is no source of inflow to the structure.

If it is assumed that the depth of liquid in the structure has increased by one foot over the duration of an 11 year period (October 2002 to August 2013) and one foot of depth in an 8 foot diameter structure is equivalent to a volume of 376 gallons, then liquid has been accumulating at a rate of approximately 34 gallons per year. Clearly, this rate of accumulation is not indicative of a landfill which is actively generating leachate. This nominal rate of accumulation should serve to document the adequacy of the existing landfill capping system.

The limited depth of leachate present in the East Leachate Structure (15 – 16 inches) will not allow for the pumping of the leachate with a pump suitable for the purpose. If the liquid depth

were found to be deeper, a pump such as a QED LDAP4+T would be appropriate for this service. The QED pump is pneumatically driven using compressed air, making it suitable for landfill/leachate applications. The pump is available in either a top loading or a bottom loading configuration. In either case, the pump is only capable of lowering the liquid level to a depth of approximately 28 inches. In this case, if the pump were installed in the 6 inch riser pipe, the operation of the pump would not be initiated since the liquid level is below the threshold depth.

In light of the fact that over a 10+ year period, the volume of accumulated liquid is not sufficient to allow for the operation of an application suitable pump, it should be concluded that pumping from the East Leachate Structure under the current conditions is not warranted.

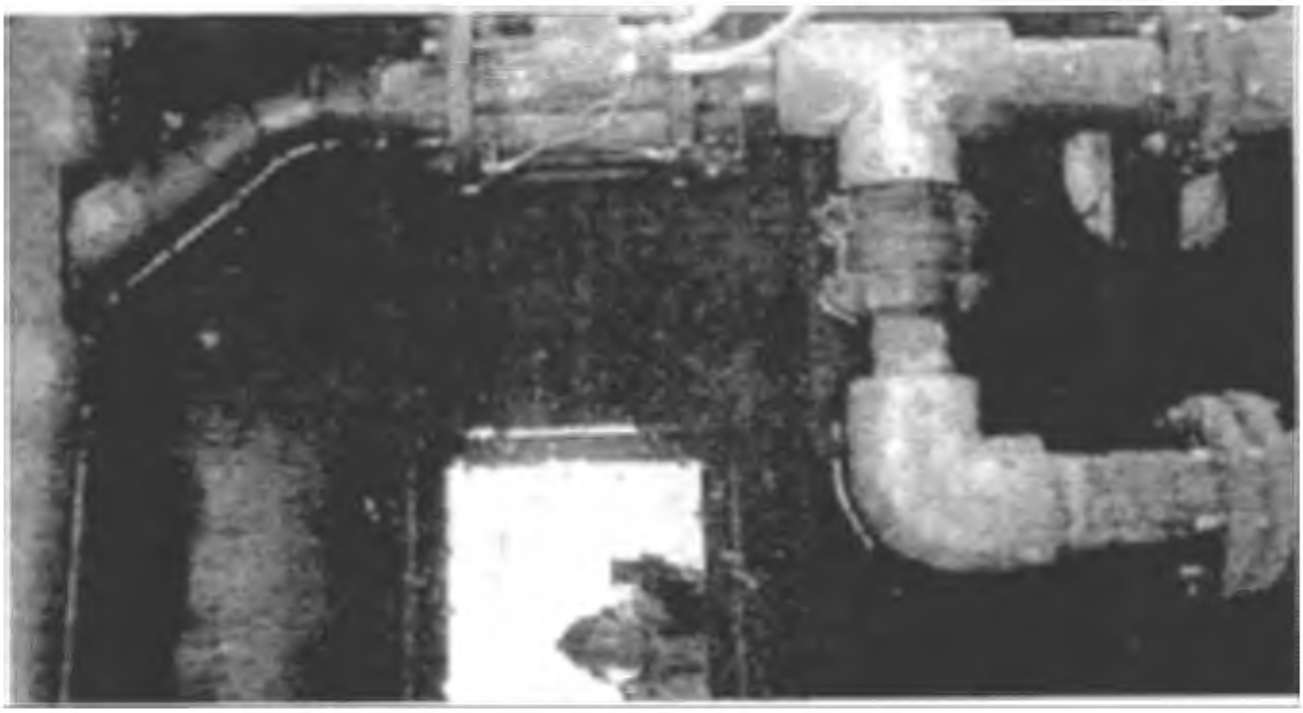
The installed bubbler system is proposed to remain in place to allow for future measurements of the liquid depth. Going forward, it is recommended that the Town of Islip take measurements of the liquid depth in the East Leachate Structure on a quarterly basis. The depth of liquid should be measured in the units of inches of water. The reported value should include the addition of twelve inches to the measured value to present the overall depth of liquid in the structure. A chronological record should be maintained to track if any increases in depth occur which may warrant or allow for pumping to be performed.

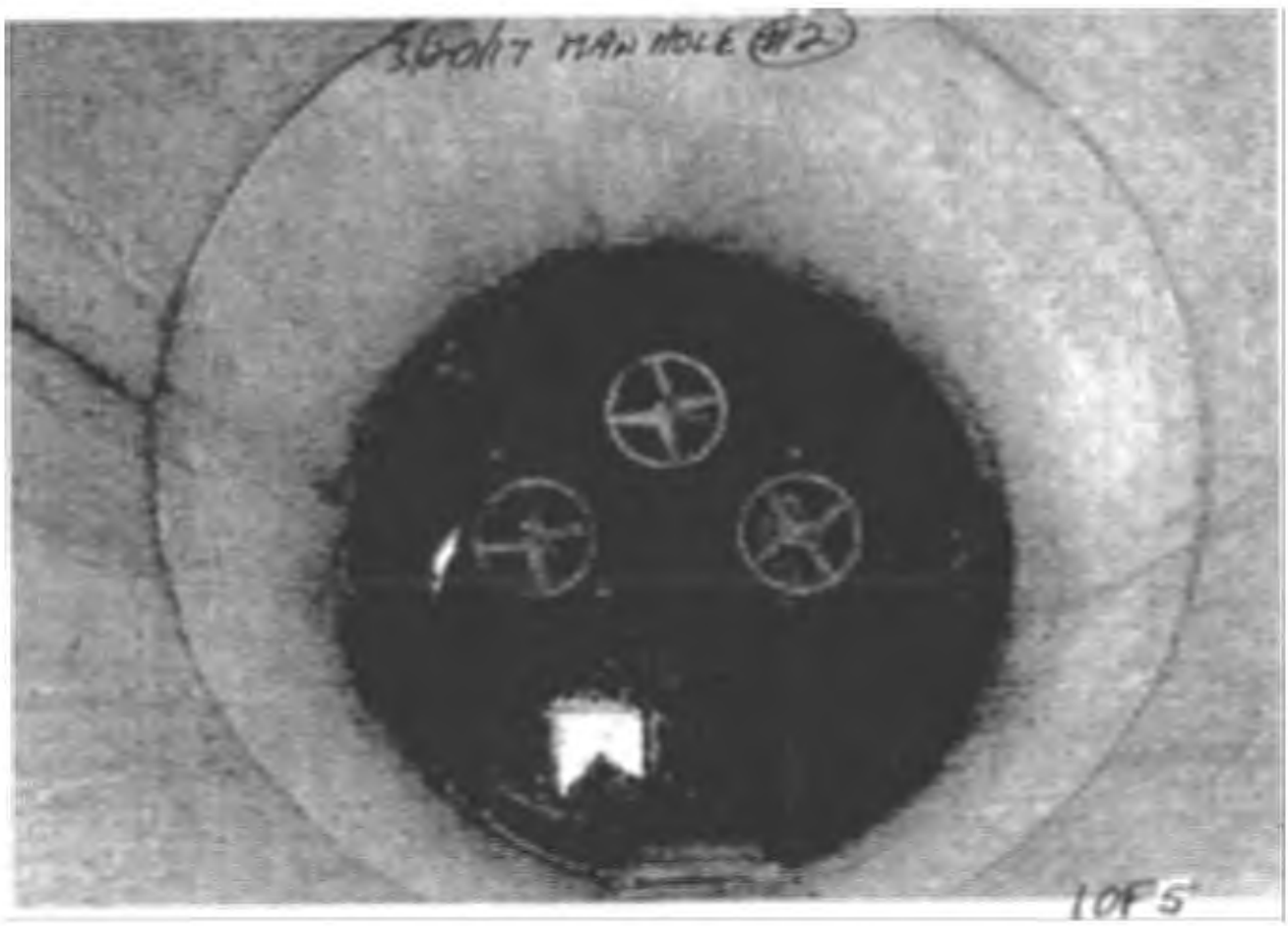
We trust the above is sufficient for your needs. Should you have any questions or comments regarding this matter, please feel free to contact this office.

Very truly yours,

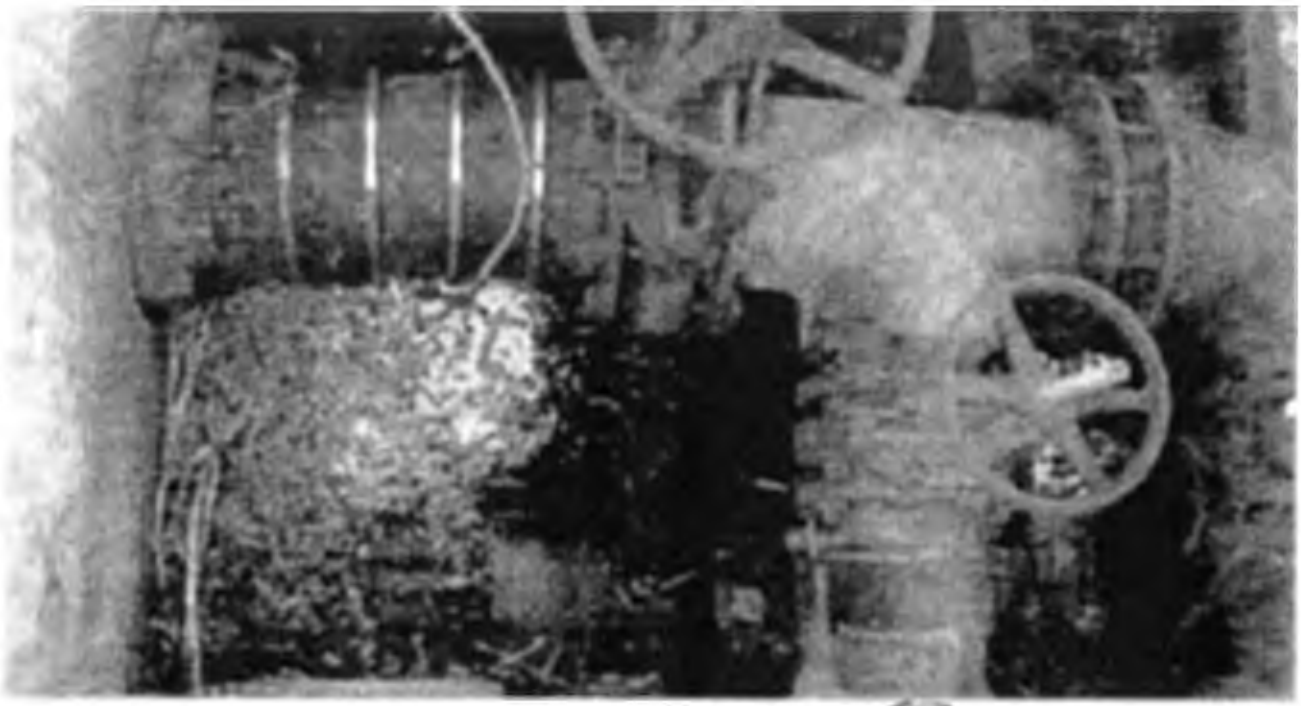
Edward J. Reilly
Associate

EJR/nc
cc: A. Sanchez (IRRA)
R. Walka (D&B)
T. Fox (D&B)
K. Robins (D&B)
♦3103\EJR092013_AV

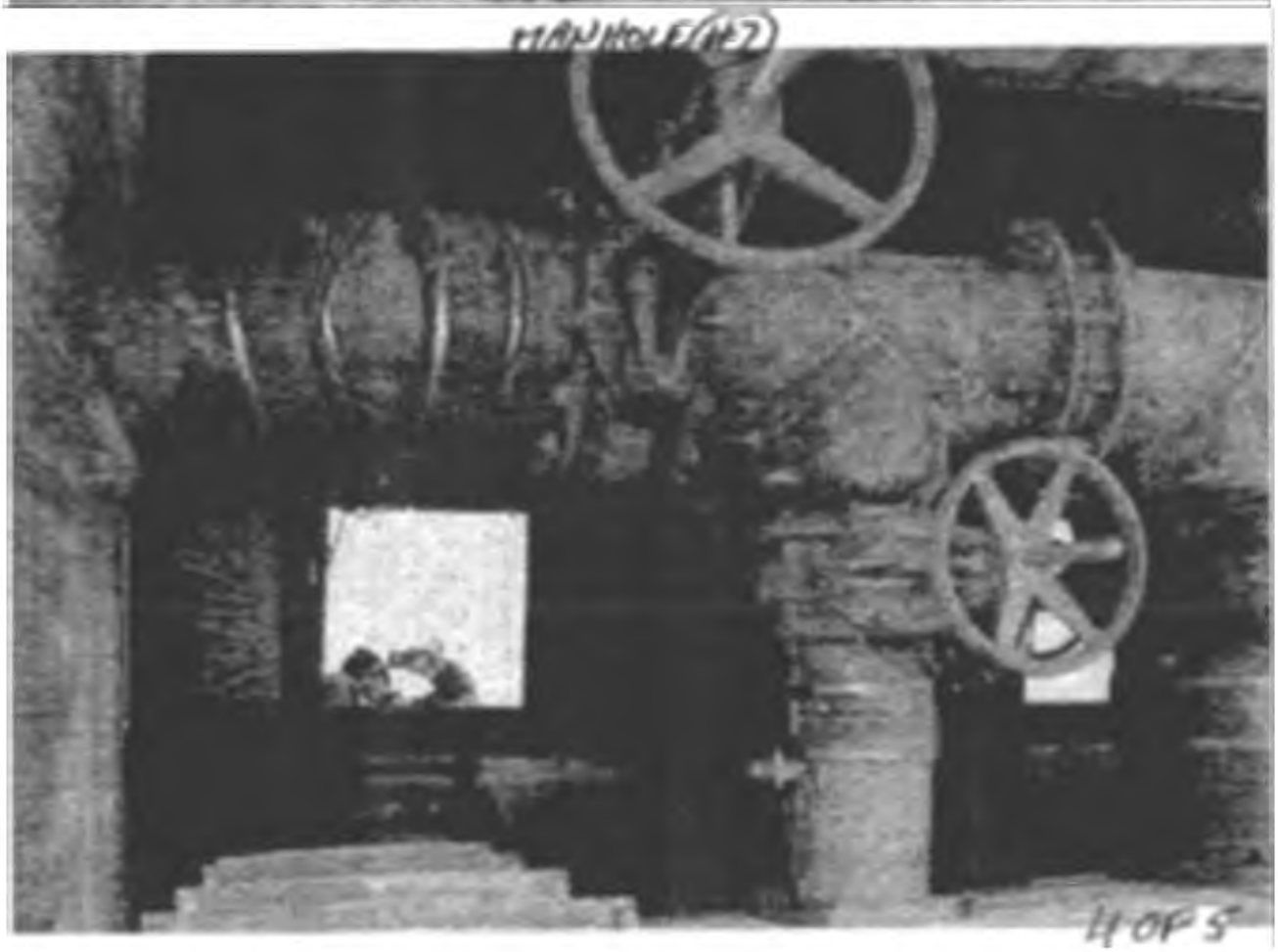



3,600 GAL MAN HOLE #2
1 OF 5

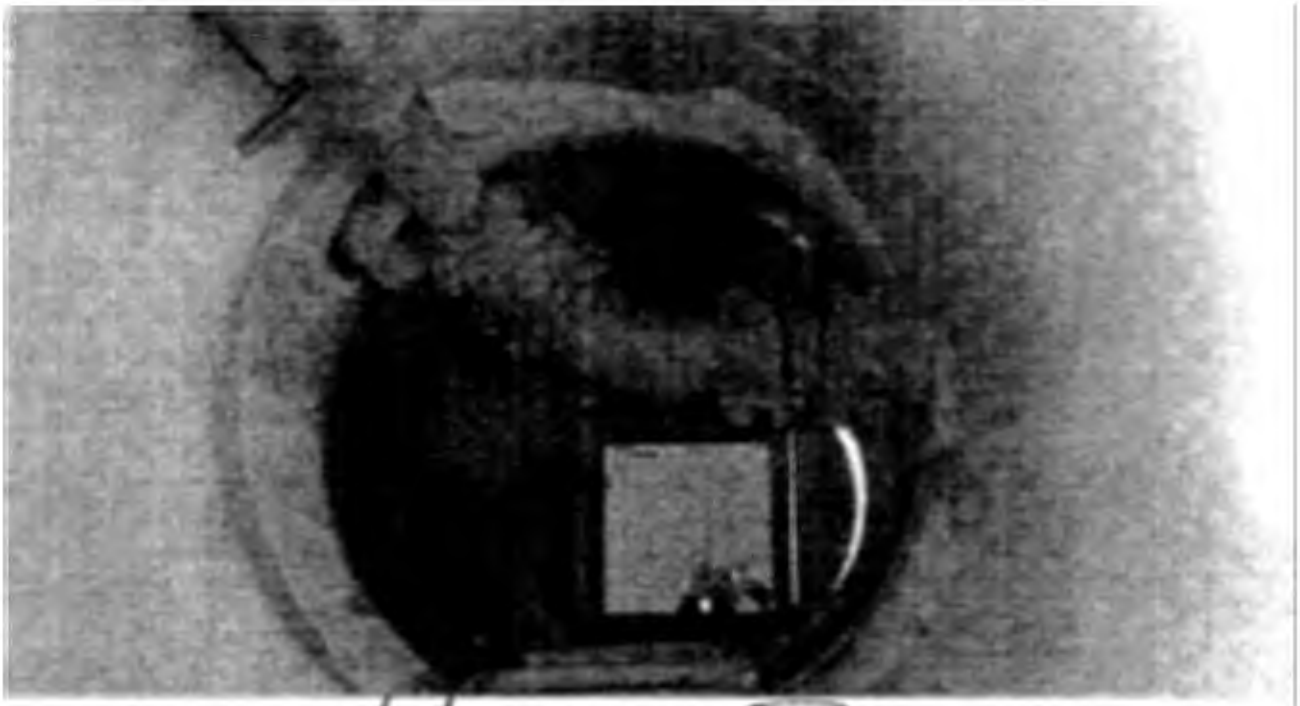
MAN HOLE (#5)



MAN HOLE #3



4 OF 5



3/20/17 MAIN HOLE #15

5 OF 5

Table 5
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 4 FOR QUARTERLY INSPECTION OF
LANDFILL GAS (LFG) MANAGEMENT SYSTEM

/1/17

WEATHER: Cloudy, Overcast.

zil Rahaman

INSPECTION (Check One): QUARTERLY ☐ SEMI-ANNUAL ☒ OTHER _____

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
re-grade)	*See Notes 1 & 2*		
ell Head Assemblies			
ell A-01	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part III, Landfill Gas, VOC Monitoring Results,
ell A-02	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	and Well Condition Prepared by FPM Engineering Group, P.C.
ell A-03	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-04	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-05	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-06	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Tilted northeast (monitoring).
ell A-07	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-08	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-09	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-10	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-11	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-12	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-13	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-14	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-15	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Tilted east (monitoring).
ell A-16	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-17	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ell A-18	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
e Headers			
st of "A" and "B" Blowers	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

Table 5
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 4 FOR QUARTERLY INSPECTION OF LANDFILL GAS (LFG) MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
e-grade) cont.			
on			
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
t (Water Separator)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
er(s)	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Not inspected,System used for venting only.
Tank	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
echanical	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ding	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
er	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
echanical	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
ng Wells			
et	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part III, Landfill Gas, VOC Monitoring Results,
et	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	and Well Condition Prepared by FPM Engineering Group, P.C.
et	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
e	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ie-grade)			
Vell Head Assemblies			
Vell B-01	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Abandoned.
Vell B-02	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Abandoned.
Vell B-03	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Abandoned.
Vell B-04	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part III, Landfill Gas, VOC Monitoring Results,
Vell B-05	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	and Well Condition Prepared by FPM Engineering Group, P.C.
Vell B-06	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

Table 5
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 4 FOR QUARTERLY INSPECTION OF
LANDFILL GAS (LFG) MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
ɔve-grade)			
Well Head Assemblies (cont.)			
Well B-07	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-08	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-09	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-10	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-11	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-12	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-13	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-14	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well B-15	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
de Headers			
t B-13 to B-15	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
t B-09 to B-13	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ader near B-09	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	Flange concerns.
ader near B-14	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ader at Network West			
Blower Stations	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ion			
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ter(s)	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Not inspected,System used for venting only.
ot (Water Separator)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Tank	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Mechanical	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
lding	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

Table 5
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex
FIELD INSPECTION FORM NO. 4 FOR QUARTERLY INSPECTION OF
LANDFILL GAS (LFG) MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
ove-grade) cont.			
)	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
iffle	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
rester	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
/ Mechanical	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
toring Wells			
iplet	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part III, Landfill Gas, VOC Monitoring Results,
iplet	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	and Well Condition Prepared by FPM Engineering Group, P.C.
iplet	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
iplet	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
iplet	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
iplet	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Abandoned.
iplet	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Abandoned.
ove-grade)			
Well Head Assemblies			
Well C-01	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part III, Landfill Gas, VOC Monitoring Results,
Well C-02	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	and Well Condition Prepared by FPM Engineering Group, P.C.
Well C-03	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-04	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-05	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-06	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-07	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-08	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-09	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-10	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-11	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Well C-12	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 4 FOR QUARTERLY INSPECTION OF LANDFILL GAS (LFG) MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
\bove-grade)			
)n Well Head Assemblies (cont.)			
)n Well C-13	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
)n Well C-14	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
)n Well C-15	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
)n Well C-16	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
rade Headers			
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Not equipped.
tation			
	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
s)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ıt Pot (Water Separator)	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ate Tank	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
l / Mechanical	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
Building	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
p	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
affle	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
rester	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.
l / Mechanical	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	System used for venting only.

Table 5
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 4 FOR QUARTERLY INSPECTION OF
LANDFILL GAS (LFG) MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
ıve-grade) cont.			
ıring Wells			
ɔlet	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ɔlet	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	Cover bolts not secured due to daily inspection.
EMS			
ɛtection at Red House	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Serviced 2/13/17.
ɛtection at Scale House	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Serviced 2/13/17.
ımping and detection			
; and biofilters at south			
SW landfill	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Re: Table 4 Section 1.2 .
:s	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Abandoned.
tection @ A-System			Not avaliable
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☒NO☐	

ɔersonell peresent for inspection of, 1.0 A-SYSTEM Section 1.3, 1.4 , 2.0 B-SYSTEM Section 2.3, 2.4, and 3.0 C-SYSTEM Section 3.3, 3.4 .

ion form along with Figure OM-5 – Single Line Diagram of Landfill Gas Management System by Golder Associates.
ction of well head assemblies, items/components to observe are extraction well casing, valve, lateral (flexible hose), etc.

Table 6
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 5 FOR GROUNDWATER MANAGEMENT SYSTEM

2/19/16 WEATHER: ?

rvika & Bartilucci. INSPECTION (Check One): QUARTERLY ☒ SEMI-ANNUAL ☐ OTHER ______

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
ted for Quarterly Monitoring			
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part IV, Blydenburgh Road Landfill Complex
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Third quarter well condition report,
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Summary of well status and deficiencies, Dated November 4, 2016.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Phase 1 and Phase 2
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Third and Fourth quarter well condition report`s,
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Summary of well status and deficiencies, Dated November 4, 2016
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	and December 19,2016.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Prepared by town consultants Dvirka & Bartilucci (D&B).
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	

Table 6

Islip Resource Recovery Agency

Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 5 FOR GROUNDWATER MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
ted for Quarterly Monitoring			
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part IV, Blydenburgh Road Landfill Complex
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Third quarter well condition report,
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Summary of well status and deficiencies, Dated November 4, 2016.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Phase 1 and Phase 2
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Third and Fourth quarter well condition report`s,
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Summary of well status and deficiencies, Dated November 4, 2016
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	and December 19,2016.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Prepared by town consultants Dvirka & Bartilucci (D&B).
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	

Table 6
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 5 FOR GROUNDWATER MANAGEMENT SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
:ed for Quarterly Monitoring			
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
o Assess Phase II Cleanfill Expansion			
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Attached to Part IV, Blydenburgh Road Landfill Complex
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Third quarter well condition report,
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Summary of well status and deficiencies, Dated November 4, 2016.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Phase 1 and Phase 2
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Third and Fourth quarter well condition report`s,
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Summary of well status and deficiencies, Dated November 4, 2016
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	and December 19,2016.
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	Prepared by town consultants Dvirka & Bartilucci (D&B).
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	
	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☐	

Table 7
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 6 FOR INSPECTION OF THE PERIMETER SITE SECURITY SYSTEM

20, 3/22, 3/23, 5/1/1724 — WEATHER: Sunny, Sunny, Sunny, Cloudy, Overcast.

zil Rahaman — INSPECTION (Check One): QUARTERLY ☐ SEMI-ANNUAL ☒ OTHER _____

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
	See Notes 1 & 2		
ter	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	
eter	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	By Recharge Basin #3. 2 Photo attached.
eter	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☒ NO ☐	Ash monofill fence line. Awaiting Quote/Repairs.
ieter	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	
, CHAINS, AND LOCKS	*See Note 3*		
	ADEQUATE ☒ YES ☐	NEEDS ATTENTION ☐ NO ☐	
Main Entrance	ADEQUATE ☐ YES ☐	NEEDS ATTENTION ☐ NO ☒	Gate no longer exists.

Table 7
Islip Resource Recovery Agency
Blydenburgh Road Landfill Complex

FIELD INSPECTION FORM NO. 6 FOR INSPECTION OF THE PERIMETER SITE SECURITY SYSTEM

ITEM	ADEQUATE (or YES)	NEEDS ATTENTION (or NO)	COMMENTS/ REMARKS (Note if repair/maintenance is recommended and describe its location/extent)
, AND LOCKS (cont.)			
Scale House	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Gate no longer exists.
ık Farm	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ɔrner, Off Blydenburgh Rd.	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Gate no longer exists.
i Hoffman Lane	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
IS	*See Note 4*		
meter	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
rimeter	ADEQUATE ☐ YES☒	NEEDS ATTENTION ☐NO☐	
imeter	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
rimeter	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
ccess Gates			
ce	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
of Main Entrance	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Gate no longer exists.
of Scale House	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Gate no longer exists.
Tank Farm	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	
orner – Blydenburgh Rd.	ADEQUATE ☐ YES☐	NEEDS ATTENTION ☐NO☒	Gate no longer exists.
416 Hoffman Lane	ADEQUATE ☒ YES☐	NEEDS ATTENTION ☐NO☐	

form along with Figure 2 – General Site Plan by Golder Associates.
or the condition of posts, rails, chain-link fabric, barbed wire, animal burrows/soil erosion at bottom of fence, etc.
e condition of locks, chains and items mentioned in Note 2.
ns for their existence and then for readability and visibility.
ɛld inspection form pertains to perimeter fence and warning signs; it does not include the video surveillance equipment at on-site office.


5/8/17
1 OF 1

PART II

GROUNDWATER REMEDIATION

FACILITY

RELATED DOCUMENTS

GROUNDWATER REMEDIATION - POST CLOSURE MONITORING AND MAINTENANCE REPORT

SEMI-ANNUAL REPORT ENDING DECEMBER 2016

ATE	TOTAL EFFLUENT (gals.)	DATE	TOTAL EFFLUENT (gals.)	TOTAL PROCESSED IN TIME FRAME	AVERAGE DAILY VOLUME PROCESSED FOR TIME FRAME
)/2016	2,377,979,770	7/31/2016	2,386,933,917	8,954,147	288,843
L/2016	2,386,933,917	8/31/2016	2,395,826,453	8,892,536	286,856
L/2016	2,395,826,453	9/30/2016	2,405,471,247	9,644,794	321,493
)/2016	2,405,471,247	10/31/2016	2,414,783,370	9,312,123	300,391
1/2016	2,414,783,370	11/30/2016	2,422,598,703	7,815,333	260,511
0/2016	2,442,598,703	12/31/2015	2,431,516,236	8,917,533	287,662

: 5/20/16 Extraction well #4 Experiencing diminishing flow concerns, and on 12/27/16 out of service UNDER INVEST.

7/24 to 7/25/16 Effluent Lift pump #1 replaced in house (DEFECTIVE).

8/10/16 Influent Meter at Metering Chamber replaced in house with new (DEFECTIVE).

10/24/16 MW-1D Energised but not pumping, in addition flow meter at meter vault #2 spinning counter clockweise.

(AWAITING REPAIRS TO BE SCHEDULED)

PART IV

BLYDENBURGH ROAD LANDFILL COMPLEX

GROUNDWATER MONITORING REPORT SUMMARIES NOVEMBER 4th, DECEMBER 16th 2016

PREPARED BY
DVIRKA & BARTILUCCI
TOWN CONSULTANTS

330 Crossways Park Drive, Woodbury, New York 11797
516-364-9890 • 718-460-3634 • Fax: 516-364-9045 • www.db-eng.com

November 4, 2016

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
Well Condition Report
D&B No. 3763-2B

Dear Mr. Varrichio:

Enclosed please find the Third Quarter 2016 Well Condition Report for the Blydenburgh Road Landfill Complex. This report consists of Table 1, which presents a summary of monitoring well status and deficiencies along with recommendations. In addition, individual monitoring well inspection checklists are included.

If you have any questions or require additional information, please contact me.

Very truly yours,

Keith S. Robins

Keith S. Robins
Project Manager

KSR/nc
Enclosure
•3763\KSR16_Ltr-02

Table 1

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY OF MONITORING WELL STATUS AND DEFICIENCIES
THIRD QUARTER 2016 SAMPLING EVENT

Concrete Pad		Ponding of Water Around Concrete Seal	Protective Flush-Mounted Cover/Standpipe Cover and Lock		Well Casing Alignment	Survey Measuring Point Clearly Marked	Well Clearly Labeled	Well is Protected	Remarks and Recommendations
cked	Missing		Cover/Pipe - Intact	Lock - In Place					
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Well inside vault	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Well inside vault	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	No	Straight	Yes	Yes	Yes	Well not locked. No action required. This well is not owned by the IRRA.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
'es		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.

Table 1 (continued)

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY OF MONITORING WELL STATUS AND DEFICIENCIES
THIRD QUARTER 2016 SAMPLING EVENT

Concrete Pad		Ponding of Water Around Concrete Seal	Protective Flush-Mounted Cover/Standpipe Cover and Lock		Well Casing Alignment	Survey Measuring Point Clearly Marked	Well Clearly Labeled	Well is Protected	Remarks and Recommendations
acked	Missing		Cover/Pipe - Intact	Lock - In Place					
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	Yes	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
	Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Yes	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Yes	Yes	Yes	Straight	Yes	Yes	Yes	No action required.

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November 4, 2016

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

Re: Blydenburgh Road Landfill Complex
Phase 1 and Phase 2 Cleanfill Landfills and
Leachate Impoundment Area
Well Condition Report
D&B No. 3339-21B

Dear Mr. Varrichio:

Enclosed please find the Third Quarter 2016 Well Condition Report for the Phase 1 and Phase 2 Cleanfill Landfills and Leachate Impoundment Area. This report consists of Table 1, which presents a summary of monitoring well status and deficiencies along with recommendations. In addition, individual monitoring well inspection checklists are included.

If you have any questions or require additional information, please contact me at (516) 364-9890, Ext. 3058.

Very truly yours,

Keith S. Robins

Keith S. Robins
Project Manager

KSR/nc
Enclosure
♦3339\KSR16_Ltr -02

Table 1

BLYDENBURGH ROAD LANDFILL COMPLEX
PHASE 1 AND PHASE 2 CLEANFILL LANDFILLS AND LEACHATE IMPOUNDMENT AREA
SUMMARY OF MONITORING WELL STATUS AND DEFICIENCIES
THIRD QUARTER 2016 SAMPLING EVENT

Surface Concrete Pad			Ponding Water Around Concrete Seal	Protective Flush-Mounted Cover/Standpipe Cover and Lock		Well Casing Alignment	Survey Measuring Point Marked	Well Labeled	Well Protected	Remarks and Recommendations
tact	Cracked	Missing		Cover/Pipe - Intact	Lock - In Place					
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
'es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
'es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
'es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
'es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
'es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
'es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
'es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
'es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
'es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
'es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
es			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.

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December 19, 2016

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

Re: Blydenburgh Road Landfill Complex
Phase 1 and Phase 2 Cleanfill Landfills and
Leachate Impoundment Area
Well Condition Report
D&B No. 3339-22B

Dear Mr. Varrichio:

Enclosed please find the Fourth Quarter 2016 Well Condition Report for the Phase 1 and Phase 2 Cleanfill Landfills and Leachate Impoundment Area. This report consists of Table 1, which presents a summary of monitoring well status and deficiencies along with recommendations. In addition, individual monitoring well inspection checklists are included.

If you have any questions or require additional information, please contact me at (516) 364-9890, Ext. 3058.

Very truly yours,

Keith S. Robins

Keith S. Robins
Project Manager

KSR/nc
Enclosure
♦3339\KSR16_Ltr -03

Table 1

BLYDENBURGH ROAD LANDFILL COMPLEX
PHASE 1 AND PHASE 2 CLEANFILL LANDFILLS AND LEACHATE IMPOUNDMENT AREA
SUMMARY OF MONITORING WELL STATUS AND DEFICIENCIES
FOURTH QUARTER 2016 SAMPLING EVENT

Surface Concrete Pad			Ponding Water Around Concrete Seal	Protective Flush-Mounted Cover/Standpipe Cover and Lock		Well Casing Alignment	Survey Measuring Point Marked	Well Labeled	Well Protected	Remarks and Recommendations
tact	Cracked	Missing		Cover/Pipe - Intact	Lock - In Place					
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
		Not Visible	No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.
Yes			No	Yes	Yes	Straight	Yes	Yes	Yes	No action required.

APPENDIX G

GROUNDWATER TREATMENT SYSTEM FACILITY SERVICE/REPAIR RECORD

ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH LANDFILL
GROUNDWATER TREATMENT FACILITY
OPERATION AND MAINTENANCE MANUAL

FACILITY EQUIPMENT SERVICE RECORD

January through June 2016

WORK DONE

1/5, 3/28, 6/28/16	Aeration Tank Blower #1; Zerk Fittings Greased.
1/6, 4/6/16	Filter`s Air Compressor; Oil Change.
1/12/16	Filters #1 & 2 Flow Cells Assembly; Disassembled Cleaned & Reassembled.
1/13, 6/8/16	Filters #3 Flow Cells Assembly; Disassembled Cleaned & Reassembled.
/15, 2/29, 4/14, 5/31/16	Aeration Tank Blower #2; Zerk Fittings Greased.
2/8/16	Chemical Pump #2; Oil Change.
2/23, 6/1/16	Aeration Tank Blower #3; Zerk Fittings Greased.
2/26/16	Aeration Tank Blower #2; Oil Changed.
2/29/16	Chemical Pump #3; Oil Change.
3/11, 6/10/16	Blower Room Air Compressor; Oil Changed, Zerk Fittings Greased, Drive Belts Inspected.
3/18/16	Filters #1 Flow Cell Assembly; Disassembled Cleaned & Reassembled **(Inoperable).**
4/19/16	Filter Air Blower; Serviced, Change oil and lube Zerk Fittings.
4/28/16	Aeration Tank Blower #3; Oil Changed.
5/13/16	Chemical Pump #1; Oil Change.
5/13/16	Aeration Tanks Exhaust fan #1&2 Zerk Fittings Greased.
5/13/16	Aeration Tanks Blower Electric Motors #1, 2 & 3; Zerk Fittings Greased.
5/18/16	**Extraction Well`s #6 Chlorinated.**
5/23/16	Aeration Tank Blower #1; Oil Changed.
5/24/16	**Extraction Well`s #5 Chlorinated.**
6/15/16	Filters #2 Flow Cells Assembly; Disassembled Cleaned & Reassembled.

ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH LANDFILL
GROUNDWATER TREATMENT FACILITY
OPERATION AND MAINTENANCE MANUAL

FACILITY EQUIPMENT REPAIR RECORD

January through June 2016

DESCRIPTION OF REPAIRS

16	Filter Air Compressor Drive Belt Replaced With New, **DEFECTIVE.**
16	Extraction Well #5 Repaired and back on line **(OUT OF SERVICE 10/30/15 TO 3/3/16)**

ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH LANDFILL
GROUNDWATER TREATMENT FACILITY
OPERATION AND MAINTENANCE MANUAL

FACILITY EQUIPMENT SERVICE RECORD

July through December 2016

WORK DONE

7/5, 11/4/16	Aeration Tank Blower #2; Oil Changed.
7/7, 10/7/16	Filter`s Air Compressor; Oil Change.
/11, 8/29, 10/11, 11/21/16	Aeration Tank Blower #2; Zerk Fittings Greased.
7/12, 8/5, 8/26, 9/27/16	Blower Room Air Compressor; Oil Changed **(due to humidity contamination concerns).**
8/9/16	Chemical Pump #2; Oil Change.
8/10/16	**Extraction Well`s #1 Chlorinated.**
9/1/16	Chemical Pump #3; Oil Change.
9/16, 11/28/16	Aeration Tank Blower #3; Zerk Fittings Greased.
10/11/16	Aeration Tank Blower #1; Zerk Fittings Greased.
10/14/16	Filter Air Blower; Serviced, Change oil and lube Zerk Fittings.
10/18/16	Annual Cleaning Of Backwash Wastewater Holding Tank #1, 2, & Wastewater Return Pumping Chamber. **(Tanker Pumped Out And Trucked Off Site, Filter`s #1, 2, &3 Back Wash Waste Water And Sludge Build Up As Well).**
10/24/16	Filters #3 Flow Cells Assembly; Disassembled Cleaned & Reassembled.
10/25/16	Filters #2 Flow Cells Assembly; Disassembled Cleaned & Reassembled.
11/1/16	Filters #2 Flow Cells Assembly; Disassembled Cleaned & Reassembled.
11/14/16	Aeration Tanks Exhaust fan #1&2 Zerk Fittings Greased.
12/5/16	Aeration Tank Blower #2 Air Filters Replaced with new.
12/27/16	Blower Room Air Compressor; Oil Changed, Zerk Fittings Greased, Drive Belts Inspected.

ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH LANDFILL
GROUNDWATER TREATMENT FACILITY
OPERATION AND MAINTENANCE MANUAL

FACILITY EQUIPMENT REPAIR RECORD

July through December 2016

DESCRIPTION OF REPAIRS

'16	Effluent pump #1 replaced in house **(DEFECTIVE)**, With pump #2 that was switched out **(June 2007 and was determined good after bench test).**
'16	Influent Meter at Metering Chamber replaced in house with new, **(DEFECTIVE).**
'16	Filter #2 Inlet gauge **(INOPERABLE)** replaced in house with used gauge.
/16	Filter #3 (CV-2) Outlet Service Valve Diaphragm Replaced, **(DEFICTIVE).**
/16	Filter #3 (CV-2) Outlet Service Valve, Burkert Air Solenoid Replaced, **(DEFICTIVE).**
/16	Filter #1 (CV-2) Outlet Service Valve Diaphragm Replaced, **(DEFICTIVE).**
/16	Filter #1 (CV-2) Outlet Service Valve, Burkert Air Solenoid Replaced, **(DEFICTIVE).**