

**Pelham Bay Landfill
Post Closure Operation, Maintenance and Monitoring
Program
Annual Site Management Report
NYSDEC ID Number: 203001
Bronx County
New York City Department of Environmental Protection**

March 2009 through December 2009

**Book 1 of 3
Report Narrative and Tables**

Prepared by:
Severn Trent Environmental Services
100 Morris Ave
Glen Cove, New York 11542
March 2010



Severn Trent Environmental Services

ANNUAL SITE MANAGEMENT REPORT SUBMITTAL

Name of Facility: **Pelham Bay Landfill
301 Shore Rd
Bronx, NY 10465**

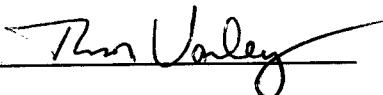
Owner: **New York City Department of Environmental Protection
Bureau of Wastewater Treatment
96-05 Horace Harding Expressway, 2nd floor
Corona, NY 11368**

Facility Operator: **Severn Trent Environmental Services
100 Morris Ave, Unit 3
Glen Cove, NY 11542
Tel: (516) 674-6032**

Management Approval:

The data contained in this Annual Site Management Report has been reviewed by the undersigned for content and accuracy.

Signature:



Name:

Thomas Varley

Title:

Regional General Manager
Severn Trent Environmental Services

PROFESSIONAL ENGINEER CERTIFICATION

Based on the information and conclusions reached in this report, for each institutional or engineering control identified for the site, I certify that all of the following statements are true:

- (a) *The institutional and / or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by DER;*
- (b) *Nothing has occurred that would impair the ability of such control to protect public health and the environment; except as noted below.*

The subject Site Management Report identifies several maintenance issues for the Landfill Gas (LFG) Collection and Flaring System, (see Corrective Measures Work Plan for LFG System maintenance submitted under separate cover). During the 2009 reporting period, the LFG collection and flaring system was meeting the overall remedial objective of preventing off-site migration (i.e., horizontal and vertical) of landfill gas. However, the continued ability to maintain control needs to be verified by increased monitoring of the perimeter gas wells, until the Corrective Measures (i.e. replacement of four gas extraction wells)is completed.

- (c) *The operation, maintenance and monitoring performed by STES during this reporting period is consistent with the requirements and guidelines of the site management plan*
- (d) *Access to site will continue to be provided to the DER to evaluate the remedy, including access to evaluate the continued maintenance of this control.*

I certify that I am familiar with the systems associated with the Pelham Bay Landfill and I have reviewed this annual report for content and accuracy. Based on the available data and information presented to me, I certify that all the information and statements in this certification form are true.

Barbara L. Stanton, P.E.
Name

Barbara L. Stanton
Signature

Date: _____ Registration No: 071093 State: New York

TABLE OF CONTENTS

Certification.....	<i>i</i>
I. Introduction.....	1
II. Summary of Engineering Control (EC) Systems	2
III. Environmental Monitoring/Institutional Controls ..	9
IV. Maintenance and Repairs	13
V. Summary.....	14

LIST OF TABLES

Table 1: Total Leachate Flows

Table 2: Total Landfill Gas Flows

Table 3: Gas Extraction Well Readings

Table 4A: Gas Monitoring Wells Summary

Table 4B: Surface Gas Readings Summary

Table 5A: List of Schedule A Parameters

Table 5B: Groundwater Monitoring Results

Table 5C: Groundwater Elevation Monitoring

Table 6: Leachate A Monitoring Results

Table 7: Leachate B Monitoring Results

Table 8: Stormwater Monitoring Results

LIST OF FIGURES

Figure 1: Site Location Map

Figure 2: Yearly Average Daily Leachate Flow

Figure 3: Groundwater Monitoring Well Sampling Point Locations

LIST OF APPENDICES

Appendix A - Monthly Leachate Daily Flow Log

Appendix B - Monthly Landfill Gas Daily Flow Log

Appendix C - Groundwater/Leachate Systems Inspections

Appendix D - Groundwater Sampling Lab Reports

Appendix E - Leachate Sampling Lab Reports

Appendix F - Landfill Gas System Inspections

Appendix G - Stormwater Management System Inspections

Appendix H - Stormwater Sampling Lab Reports

Appendix I – Landfill Cover and Auxiliary Systems Inspections

Appendix J – Laboratory Deliverable Packages (CD's)

I. INTRODUCTION

The Pelham Bay Landfill (PBL) is an inactive 91-acre municipal waste landfill located in the Bronx, New York (see figure 1). The site is bordered by the Hutchinson River to the north and east, the Eastchester Bay to the east and south, the Pelham Bay Park to the southwest, and Bruckner Boulevard Extension to the northwest. The landfill has an elevation of 131 feet with steep slopes that rise to a nearly flat top.

According to records, typical wastes received at the site included: residential wastes, rubbish, street dirt, and construction waste and demolition debris. The facility is currently operated and maintained by Severn Trent Environmental Services ("STES"). STES is required to perform routine inspections of the leachate and gas collection systems, inspection of the stormwater system and landfill cover, periodically sample and test groundwater, leachate, stormwater and gas condensate from various locations within the landfill. This report summarizes the site activities and the

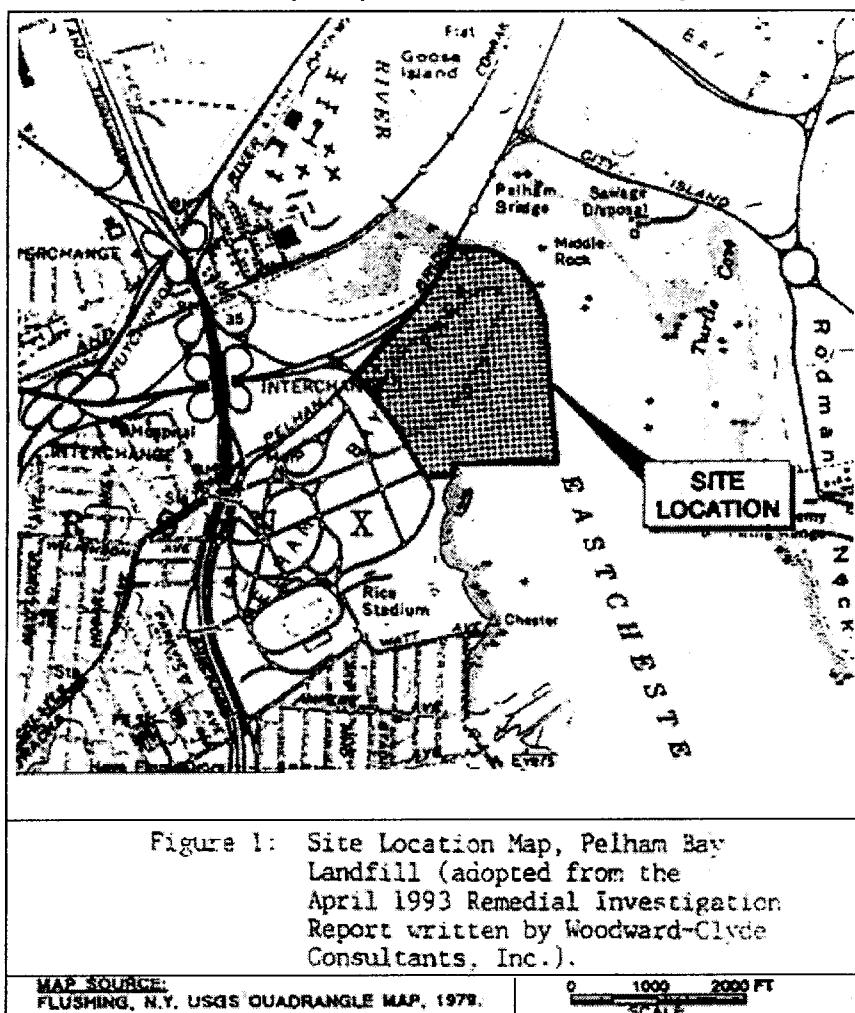


Figure 1: Site Location Map, Pelham Bay Landfill (adopted from the April 1993 Remedial Investigation Report written by Woodward-Clyde Consultants, Inc.).

results from the monitoring performed from March 2009 through December 2009, which is the period of time starting from the end of the previous reporting period to the end of the calendar year as predicated by the new Site Management Plan. The draft Site Management Plan was approved in March 2009 and was finalized in September 2009. The end of the calendar year coincides with the end of the current O&M contract. A new O&M contractor will be onsite as of January 1, 2010.

II. SUMMARY OF ENGINEERING CONTROL (EC) SYSTEMS

Provided below is an overview of the engineering controls and a performance summary for each component.

a. Groundwater/Leachate Collection System

Description - Leachate

The leachate collection and disposal system was designed for the removal of leachate from the landfill in order to protect the groundwater from contamination and limit discharges into the surrounding environment. The leachate capture system is designed to work by hydraulic gradient and includes a slurry wall on the southwest corner of the landfill. The slurry wall is designed to intercept landfill leachate flow and prevent it from migrating offsite. A collection trench located inside the slurry wall diverts any captured leachate to the on-site D-1 Pump Station which pumps to the NYCDEP Hunts Point WPCP. Leachate is also collected by a combination of collection manholes and collection sumps, curtain drain, lift stations, and storage tanks. Collected leachate is stored in the holding tanks and drained to pump station D-1 which pumps through a force main to the Hunt's Point Water Pollution Control Plant (WPCP). The pumps in station D-1 are controlled by level float switches. Total flow is calculated based on recorded flow totalizer readings from the force main flow meter.

During heavy rains which may result in a combined sewer overflow (CSO) event, the leachate can be stored in the on-site storage tanks. There are five, twenty thousand gallon storage tanks which may be used for this purpose. The storage tanks are equipped with a truck filling station to allow for removal of leachate by tanker truck should the need arise.

Performance - Leachate

During this reporting period the leachate collection system performed as per design intent. The leachate collected by the various pump and lift stations and collection trenches was successfully transferred to the on-site storage tanks and pumped to the Hunts Point WPCP via pump station D-1.

During CSO events STES observed the proper operation of the automatic valve and associated controls. During CSO events leachate was stored in the on-site storage tanks. When CSO conditions subsided the automatic valve opened and stored leachate was transferred to D-1 and pumped to the Hunts Point WPCP.

The collection system consists of both gravity and pumped wet wells and trenches. Pump operation is controlled by pre-set float level switches in the wet

wells that activate the pumps to turn on and off. On November 1 through November 16, 2009 the Hunts Point WPCP lost electronic monitoring of the CSO system and as such, DEP directed an emergency shutdown of the leachate collection system at the landfill. With this exception, the groundwater/leachate system operated continuously during this reporting period.

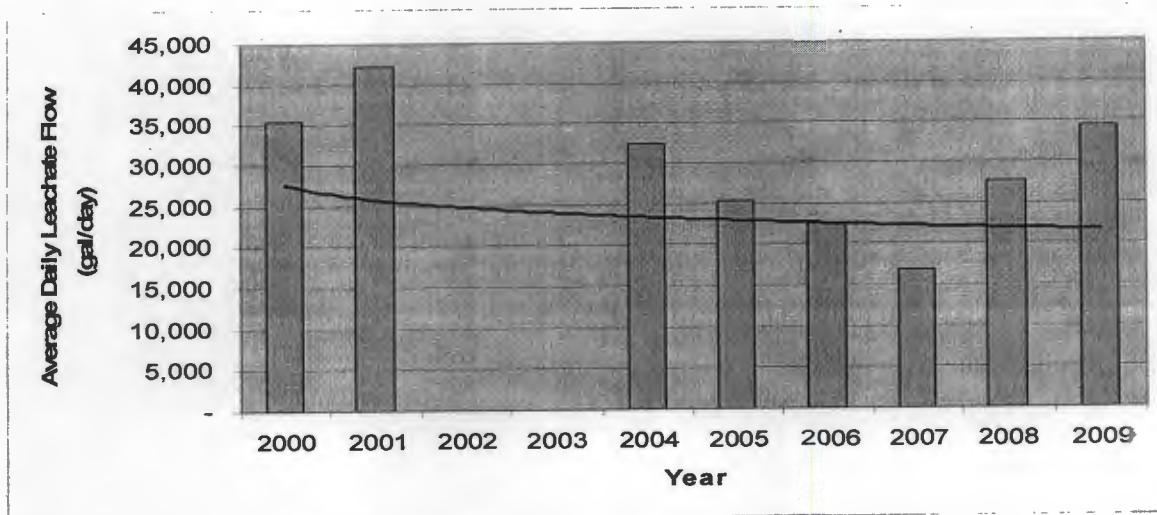
Table 1, Total Landfill Leachate Flows, provides a summary of the total estimated leachate pumped; monthly average daily flows, monthly daily average minimum and maximum flows and percent run time from station D-1 pumps to the force main. The leachate collection system operated continuously during this reporting period. The percent run times indicate the amount of time during each month that the D-1 pumps were activated and running. The daily leachate flow readings can be found in Appendix A of this report.

Table 1
Total Landfill Leachate Flows

Date	Gallons Pumped	Gallons Trucked	Total Gal Generated	Average Daily Gallons	Daily Monthly Min	Daily Monthly Max	Monthly Percent Run Times
Mar-09	1,135,933	0	1,135,933	36,643	25,450	76,300	41
Apr-09	1,461,715	0	1,461,715	48,724	30,500	94,700	52
May-09	1,870,900	0	1,870,900	60,352	37,600	94,100	54
Jun-09	1,859,800	0	1,859,800	61,993	39,100	93,900	53
Jul-09	1,267,500	0	1,267,500	40,887	21,400	62,300	37
Aug-09	535,000	0	535,000	17,258	3,900	69,700	13
Sep-09	182,900	0	182,900	6,097	2,500	15,500	7
Oct-09	310,400	0	310,400	10,013	4,000	31,200	9
Nov-09	273,500	0	273,500	9,117	0	70,300	9
Dec-09	996,040	0	996,040	32,130	5,000	68,000	31
Total			9,893,688				

There is a downward trend in the daily average landfill leachate flows since the landfill was capped; however, it was evident that the trend was increasing from early spring 2009 through July 2009. The check valves on the D-1 pumps had failed and were repaired August 2009. After which, the pumped leachate flows decreased. Figure 2, Yearly Daily Average Leachate Flow, developed from available historical flow data, displays a graphical representation of the trend.

Figure 2
Yearly Average Daily Leachate Flow
Pelham Bay Landfill, Bronx, NY



Notes.

1. Averages are computed from available flow data over the calendar year (January through December)
2. 2002 and 2003 accurate flow data is unavailable

Description - Groundwater

A collection trench on the offsite park side of the southwest corner slurry wall collects any groundwater flow and prevents it from entering the landfill site. The groundwater collection trench is diverted to a stormwater outfall. Groundwater elevations obtained from on-site and off site groundwater monitoring wells and piezometers are used to monitor this system.

Performance - Groundwater

The groundwater elevation measurements obtained by STES personnel were recorded at both low tide and high tide. A summary of the groundwater elevation measurements is provided in Table 5C. A review of the data during this monitoring period indicates that the collection trench is working as designed.

b. Landfill Gas System

Description

Landfill gas generated within the landfill is collected through twenty two (22) gas extraction wells, a gas venting layer at the surface of the landfill and a perimeter

gas collection pipe around the base of the landfill. Extracted gas is conveyed via polyethylene piping to blowers and an enclosed flare system.

The gas flare system consists of two blowers and a burner management system. The burner management system includes a flame safeguard package, which monitors key parameters and shuts the unit down if an unsafe condition occurs. The key shut down interlocks are: high and low flare temperature, flame failure and low purge air flow (during purge cycle). The start-up sequence is; stack purge, pilot ignition, initiate waste gas flow, and louver adjustment to achieve set point operating temperature. The standard operating procedure for the system is in the automatic mode. In this mode the initial start-up sequence will automatically make three attempts to start the system before shutting down. However, once the system has shutdown, all alarm conditions must be manually cleared prior to initiating the start-up sequence.

Performance

The landfill gas flare is designed to run continuously. As reported in the March 2008 through February 2009 Annual Report, STES cited certain difficulties operating the flare continuously (i.e., 24 hours per day 7 days a week), stating the primary reason was low percent methane in the flare influent. Based on these observations, STES suggested the DEP give consideration to a pulsed (i.e., non-continuous) flare operation. As a follow-up to this suggestion, the DEP requested ARCADIS review the Landfill Gas and Flare System data. Based on an initial review of the available data for the Landfill Gas and Flare System, ARCADIS determined that:

- Air/O₂ infiltration into the landfill had occurred along the landfill perimeter, and was continuing to occur.
- Landfill gas temperatures exceed expected levels and exceeded allowable limits (as stated in the PBL OMM Manual). This was subsequently attributed to tidal influences on the landfill as was documented in the Remedial Investigation Report.
- The percentage of methane gas measured during routine monitoring in the gas extraction wells and flare influent were consistently below minimum percentage required by the PBL OMM Manual.

Collectively, these data indicate that the LFG System was "overdrawing" (i.e., the flow of LFG into and through the LFG System is not balanced). Furthermore, the data indicate that the overdraw/air infiltration situation discussed above has caused a conversion/partial conversion of the biological decomposition process from an anaerobic state to an aerobic state within the waste at the PBL. Based on

these findings, ARCADIS recommended shutting down the LFG flare and gas collection system for evaluation/maintenance purposes. At that time, the NYSDEC was notified that the Landfill Gas System would be temporarily shut down to allow system evaluation/troubleshooting/maintenance to proceed in accordance with the OMM Manual (i.e., including opening the passive vents, allowing the landfill to revert back to an anaerobic state, conducting a detailed evaluation, conducting necessary maintenance, and rebalancing the landfill gas system).

Maintenance was completed following the shutdown of the LFG collection and flaring system. During this period, ARCADIS worked with STES to troubleshoot the system, identify air infiltration sources, and to implement corrective actions and maintenance to address system leaks.

The results of the maintenance inspections and corrective actions taken during the shutdown period are briefly summarized below:

- Leaks were identified at several gas extraction well heads, meter/hoses, and Passive Vents PV-3 and PV-4. The above ground hoses were replaced at each well head and the leaks were sealed. Additionally, Passive Vent PV-4 was determined to be damaged and was temporarily repaired.
- Passive Vent PV-1 was checked for leaking, but no leak was detected. However, a leak in the general vicinity of PV-1 is suspected, because LFG monitoring data collected from PV-1 and the closest LFG extraction Well EW-6 were some of the first interior monitoring locations to have O₂ detected. This area was identified for future evaluation.
- A liner boot (seal) around one gas extraction well was found to be damaged and was repaired.
- Extraction well heads/valves were determined to be beginning to fail (due to age) and were identified for future replacement. The currently-installed valves used to control flow are ball valves. It has been determined over time that valves used to control LFG flow should be either gate valves or butterfly valves.
- Based on total measured depth, a total of 9 deep gas extraction wells were expected to be blocked or damaged. Video logging was completed on December 3, 2008 and March 3, 2009. Based on the video logs, it appeared that the 9 damaged well casings/screens are deformed (i.e., collapsed or buckled), likely due to settlement and elevated LFG temperatures. ARCADIS recommended that, at a minimum, four of these wells be replaced.

During the maintenance period, the monitoring frequency for both the LFG extraction wells and the perimeter LFG monitoring wells was increased. The

objective of the increased monitoring was to evaluate progress made by the repair of identified leaks, conversion of the landfill back to an anaerobic state, and to document the fact that no violations of the maximum LFG limits occurred at the perimeter LFG monitoring locations (i.e., there was no off-site migration of LFG).

After the maintenance shutdown period the LFG System was restarted and balanced. Initially the LFG Flare was operated continuously basis due to a rebound in the methane concentrations. However the methane concentration at the flare inlet steadily decreased to levels below what is needed to maintain the continuous system operation. This pattern continued through the 2009 reporting period. The mechanical components of the flare were functioning and did not have an impact on the overall flare performance. The safety shutdown interlocks associated with the landfill gas flare were functional. The flare operation was intermittent depending on the quantity of methane gas available. When automatic shutdowns occurred, STES site personnel would attempt to restart the flare. If the flare would not re-start, gas monitoring data was obtained. The flare would remain off line until the methane concentrations had rebounded to a level to sustain combustion. A summary of the landfill gas flows and percent run time for the period of March 2009 through December 2009 are provided in Table 2, Total Landfill Gas Flows. More detail of the landfill gas flow can be found in Appendix B of this report.

Table 2
Total Landfill Gas Flows

Date	Avg Daily Flow (CFM)	Daily Avg Minimum (CFM)	Daily Avg Maximum (CFM)	Monthly Percent Run Times	Total Gas Flow (CFM)
March-09	291,945	0	856,300	19	9,050,300
April-09	229,426	0	697,600	13	6,882,767
May-09	165,116	0	1,000,000	11	5,118,600
June-09	1,372,427	0	2,336,967	70	41,172,800
July-09	935,308	0	2,017,700	57	28,994,533
August-09	1,114,254	0	1,935,400	63	34,541,867
September-09	281,823	0	1,849,100	16	8,454,700
October-09	599,097	0	1,969,800	20	18,572,000
November-09	687,917	0	1,962,700	43	20,637,500
December-09	615,911	0	2,222,500	27	19,093,240
Total Estimated Cumulative Gas Flow					192,518,307

Due to the intermittent operation of the LFG system, STES increased the monitoring frequency of the perimeter LFG monitoring wells to determine if there was any off-site migration of LFG. Monitoring data recorded from the perimeters wells were below the LFG action levels. However, we did see some slight increases in CO₂ and methane readings when the flare system was off for an extended period indicating the need to keep the LFG flare operational.

The NYCDEP requested an independent review of the LFG data and recommendations presented by ARCADIS (i.e., a second engineering opinion) to determine if the replacement of four LFG extraction wells was warranted, or if the decreased methane production was a result of the age of the PBL and an associated decrease in methane generation rates.

An independent review was conducted by URS. URS prepared a brief report of their findings and a meeting was scheduled and held between NYCDEP, ARCADIS, and URS to discuss the findings. The outcome from the meeting, between the three parties, was that, at a minimum, the four landfill gas extraction wells should be replaced. At the request of the DEP, ARCADIS prepared specifications for the drilling and installation/replacement of four landfill gas extraction wells and solicited bids from several drilling subcontractors. At this time NYCDEP was in the process of bidding and issuing a new OMM contract for the Site, and included the budget for well replacement as part of the OMM Contract. In anticipation of replacing the wells during the first half of 2010, the DEP requested that ARCADIS prepare a Corrective Measures Work Plan for the well replacement (i.e., maintenance) task. The referenced Work Plan will be submitted to NYSDEC under separate cover.

c. Stormwater Management System

Description

Stormwater runoff from the landfill surface is diverted through a series of swales, baffled outlets and drainage pipes and directed to one of three sedimentation ponds located around the landfill site. The ponds are connected in series, and are designed so that gravity flow empties one pond into the next via underground pipes. Effluent from the third sedimentation pond flows by gravity to an outfall located on the northeast side of the landfill.

Performance

STES performs routine inspections of the Stormwater Management System. There are contract allowance items to address maintenance issues if required. During this reporting period, the Stormwater Management System functioned as designed.

d. Landfill Cover & Auxiliary Systems

Description – Landfill Cover

The Pelham Bay Landfill cover system is comprised of several layers (from top to bottom): a vegetative topsoil layer, loamy soil layer, geo-composite drainage layer, HDPE impermeable liner, gas venting layer and sub-base. There is a well established growth of meadow grasses on the top vegetative cover which attract various wildlife.

Performance

During this reporting period there have been only minor activities which resulted in a disturbance to the cover system. Several vector penetration burrows were investigated and filled; none of these burrows reached the geo-composite liner and should be considered minor.

Description – Roadways

The landfill roadways consist of an access road around the base perimeter of the landfill, leading to a road that continues to wind around the landfill ending at the top. The access roads have limited traffic, primarily STES pickup trucks and security personnel cars.

Performance

The roads have developed ruts in various sections. STES personnel periodically fill the ruts and holes with crushed stone. Posts with reflectors are located along the curves in the roadways.

III. ENVIRONMENTAL MONITORING/ INSTITUTIONAL CONTROLS

a. Groundwater/Leachate Monitoring

During this reporting period, Severn Trent performed the required monitoring of the groundwater and leachate systems. This included twice weekly GWL-1, monthly GWL-2, quarterly GWL-3 inspections; and semi annual sampling and analysis of the leachate. Copies of GWL inspection forms for the reporting period are included in Appendix C of this report. Semi-annual sampling of the groundwater wells and leachate was also performed. The analytical results are in Appendix D, and the electronic laboratory deliverables are provided in Appendix J of this report.

Groundwater

There are 15 groundwater monitoring wells located in the landfill, four monitoring wells located off-site and six piezometers. Ten of the groundwater monitoring wells are sampled semi-annually and analyzed for parameters designated as Schedule A, as summarized on Table 5A, List of Schedule A Parameters. Schedule A analysis includes Volatile Organics, Semi Volatile Organics, Pesticides, and Inorganic parameters. Groundwater monitoring well sampling was performed in April and October 2009.

The results from the groundwater monitoring are attached in Table 5B, Groundwater Monitoring Results. A site map of the monitoring well locations is provided in Figure 3. Table 5B provides a comparison of the analytical results with the NYSDEC Ambient Water Quality Standards and Guidance Values. Concentrations detected over the standards are in bold.

A review of the analytical results, since the implementation of tidal coordinated sampling in May 2006, indicate only a few parameters detected over the NYSDEC Ambient Water Quality standards. Only one well, MW-122 had VOC parameters detected above the ambient water quality standards for benzene and Chlorobenzene, 7 ug/l and 23 ug/l respectively. Both of these parameters have remained largely unchanged since August 2002. Analytical results recorded this reporting period do not indicate any changes needed to the current groundwater monitoring plan.

Leachate

Leachate quality is monitored semi-annually for Schedule A and Schedule B parameters. Samples are obtained from the D-1 Pump Station wet well. The Schedule B analysis includes conventional parameters and selected metals. The results from the leachate monitoring are attached in Table 6, Leachate A Monitoring Results, and Table 7, Leachate B Monitoring Results. Analytical results recorded this reporting period do not indicate any changes needed to the current leachate monitoring plan. The analytical results are in Appendix E and the electronic laboratory deliverable is Appendix J of this report.

b. Landfill Gas Monitoring

During this reporting period, Severn Trent performed the required monitoring of the landfill gas system which included twice weekly LFG-1, monthly LFG-2, quarterly LFG-3 inspections; and semi annual monitoring of the four gas extraction well and ten surface gas points. Copies of these inspection forms for the reporting period are included in Appendix F of this report.

The monitoring of the gas extraction wells and perimeter gas wells was performed using a Landtec GEM-500 landfill gas meter. An FID meter was used to record surface gas readings. During this reporting period the monitoring frequency of the gas extraction wells and the perimeter gas monitoring wells was increased to document the fact that no violations of the maximum LFG limits occurred at the perimeter LFG monitoring locations (i.e., there was no off-site migration of LFG). As mentioned in the discussions on LFG system performance, monitoring data recorded from the perimeters wells were below the maximum LFG action levels. However, we did see some slight increases in CO₂ and methane readings when the flare system was off for an extended period. STES recommends increase monitoring of the perimeter gas wells during periods when the LFG Flare is shut down.

A summary of the data for this reporting period is provided in Table 3, Gas Extraction Well Readings, Table 4A, Gas Monitoring Well Readings, and Table 4B, Surface Gas Readings. The methane concentrations in both the Gas Monitoring Wells and Surface Gas Readings were recorded as either non-detect or below action levels indicating the LFG collection and flaring system is meeting the overall objective of preventing off-site migration (i.e., horizontal and vertical) of landfill gas.

c. Stormwater Monitoring

During this reporting period, Severn Trent performed the required monitoring of the Stormwater management systems. This included three monthly inspections SMS.-1, SMS-2 and SMS-3; and semi annual sampling of the Stormwater discharge from the landfill. Copies of the inspection forms are included in Appendix G. Stormwater discharge from the sedimentation pond is sampled semi-annually and analyzed for Schedule A parameters. A summary of the results from the stormwater monitoring are attached in Table 8. The analytical stormwater data is included in Appendix H and the electronic laboratory deliverable is provided in Appendix J of this report. Analytical results recorded this reporting period do not indicate any changes needed to the current stormwater monitoring plan

d. Landfill Cover & Auxiliary Systems

During this reporting period, Severn Trent performed the required monitoring of the landfill cover and auxiliary systems. This included monthly FCS-1 and AS-1, inspections. Copies of these inspection forms for the reporting period are included in Appendix I of this report.

STES performs a routine monthly inspection of the cover system for evidence of erosion, settlement or other signs of compromise to the cover. The inspection consists of visual observations of the following: side slopes, vegetation, underlying geosynthetic layer and soil components, and vandalism. Side slopes are observed for deficiencies such as surface cracks, settlement, erosion, sink holes, ponding or any other observation that could lead to unstable side slopes. The cover system is observed for any signs of sparse, stressed or undesirable vegetation and damage to the underlying geosynthetic layer.

In accordance with the Site Management Plan, landfill mowing is performed under the direction of the DEP and only portions of the landfill cover are mowed at a time. This enables the wildlife on the site to relocate from the mowed area to other areas of the landfill. However, as a result, the vegetation can reach over several feet high in some areas especially during the growing season. A thorough inspection of the landfill cover system is hampered by the dense vegetation. During October and November 2009, 41 acres of the land fill was mowed. An inspection of the mowed areas did not uncover any major deficiencies.

Data collected during this reporting period does not indicate any changes needed to the current monitoring plan for the landfill cover and auxiliary systems.

e. Gas Condensate Monitoring

Gas condensate is generated at the landfill gas flare during the gas extraction process. The condensate flows by gravity via an underground pipe from the landfill gas flare to the D-2 manhole. The condensate combines with the D-2 flow and continues by gravity to the D-1 Pump Station where it is pumped to the Hunts Point WPCP.

Gas condensate sampling is not a requirement as stated in the Site Management Plan, Appendix K, Section 5, Subsection 5.4.2. Gas condensate samples are obtained at the pipe connection in the D-2 manhole. Historically very small volumes of condensate have been generated which has hindered sample collection. During this monitoring period a gas condensate sample was not collected.

f. Deed Restriction

Currently DEP is working with the NYC Department of Parks and Recreation, the official Owner of the Pelham Bay Landfill site to execute the "Deed Restriction"

g. Perimeter Fence

Security fences are located around the perimeter of the landfill, the MCC panel area, storage tank farm, and the gas extraction wells. All security fences are in good condition with the exception of the perimeter fence. Unauthorized personnel routinely cut access holes through the fence primarily to gain fishing access to the eastern bulkhead on Eastchester Bay. This is an ongoing issue and repairs to the fence are only short term. On several occasions the police department has issued summons to deter this activity.

h. Other Site permits

NYC Fire Department LFG Flare Operation Permit

Currently DEP is operating the LFG flare on an interim permit from FDNY. Specific improvements to the LFG system are needed to comply with current FDNY regulations. The improvements include installation of fire hydrants, a fire alarm panel and modification to the fence enclosure. The modification to the fence enclosure has been completed and the fire hydrant and fire alarm panel changes are planned for the upcoming year.

Industrial Wastewater Discharge Permit

The DEP issued an Industrial Wastewater Discharge Permit authorizing discharge from the Pelham Bay Landfill to the NYC sewer system. The permit requires monthly sampling and quarterly reporting.

IV. MAINTENANCE AND REPAIRS

Maintenance activities during this monitoring period consisted of routine preventive maintenance and non-routine activities. Non-routine work includes tasks requested by the DEP Project Manager and specific items identified in the contract specifications.

Preventative Maintenance

The routine preventative maintenance was performed by STES in conjunction with the scheduled inspections and as outlined in the SMP. The preventative maintenance included but was not limited to site maintenance such as maintaining access to equipment, litter removal and snow removal. Preventative maintenance on the gas flare system and leachate pumping systems including maintaining in-service and spare pumps in working order, exercising all valves and maintaining the piping systems.

a. Non-Routine Tasks

Landfill Mowing

A total of 41 acres of the landfill cover was mowed during the months of October and November 2009. DEP personnel were on-site to direct and monitor the mowing operation.

Misc. Maintenance Repairs

Throughout the monitoring period, STES personnel repaired holes in the perimeter fence and filled in holes dug under the fence made by trespassers in order to gain access to the waterfront bulkhead. In December 2009 all of the roads were graded, with potholes filled and tamped. Approximately 800 tons of road material was used in the process.

Landfill Gas System Repairs

STES personnel replaced the flare ignition transformer and ignition assembly in May 2009, and replaced the AMP/CFM safety relays in the flare blower panel in December 2009. Repairs to, or replacement of, the gas extraction wells will be discussed in a Corrective Measure Work Plan submitted by the DEP and completed under a separate contract.

Misc. Pump and Lift Station Repairs

In August 2009, STES personnel replaced the check valves on the D-1 pumps.

V. SUMMARY

STES reviewed data collected from this reporting period and compared with past data and trends to determine the effectiveness of the remedial measures instituted as part of the closure plan for the Pelham Bay Landfill. Based upon our review, the evidence leads to the following conclusions:

- Groundwater level measurements on either side of the slurry wall demonstrate a hydraulic gradient towards the landfill suggesting leachate intercepted by the collection trench is contained within the landfill. All leachate collected has been successfully pumped to the NYC sewer system for treatment at the Hunts Point WPCP. We believe the slurry wall is effective at diverting groundwater from the adjacent Pelham Park from entering the landfill.

- Although there are several issues identified for the LFG collection and flaring system requiring maintenance/repair, during the 2009 reporting period, the LFG collection and flaring system was meeting the overall remedial objective of preventing off-site migration (i.e., horizontal and vertical) of landfill gas.
- Based on the results from the landfill perimeter gas monitoring wells there is evidence that during periods of intermittent gas flare operation the carbon dioxide and methane levels become detectable. The NYCDEP will submit Corrective Measure Work Plan prepared by ARCADIS to address the landfill gas issues and well replacement (i.e., maintenance) task. STES recommends increased frequency of landfill gas monitoring until the corrective measures are completed.
- The results from the groundwater monitoring performed during this reporting period have been compared with the historical groundwater data collected from the Pelham Bay Landfill as summarized in the 5 year report. In general the results do not show any significant increases in concentrations or changes in groundwater quality from those contained in the 5 year report.
- With the exception of the recommendation for increased LFG monitoring, STES does not recommend revisions to the current monitoring plan.

Figure 3

Groundwater Monitoring Well Sampling Points Locations

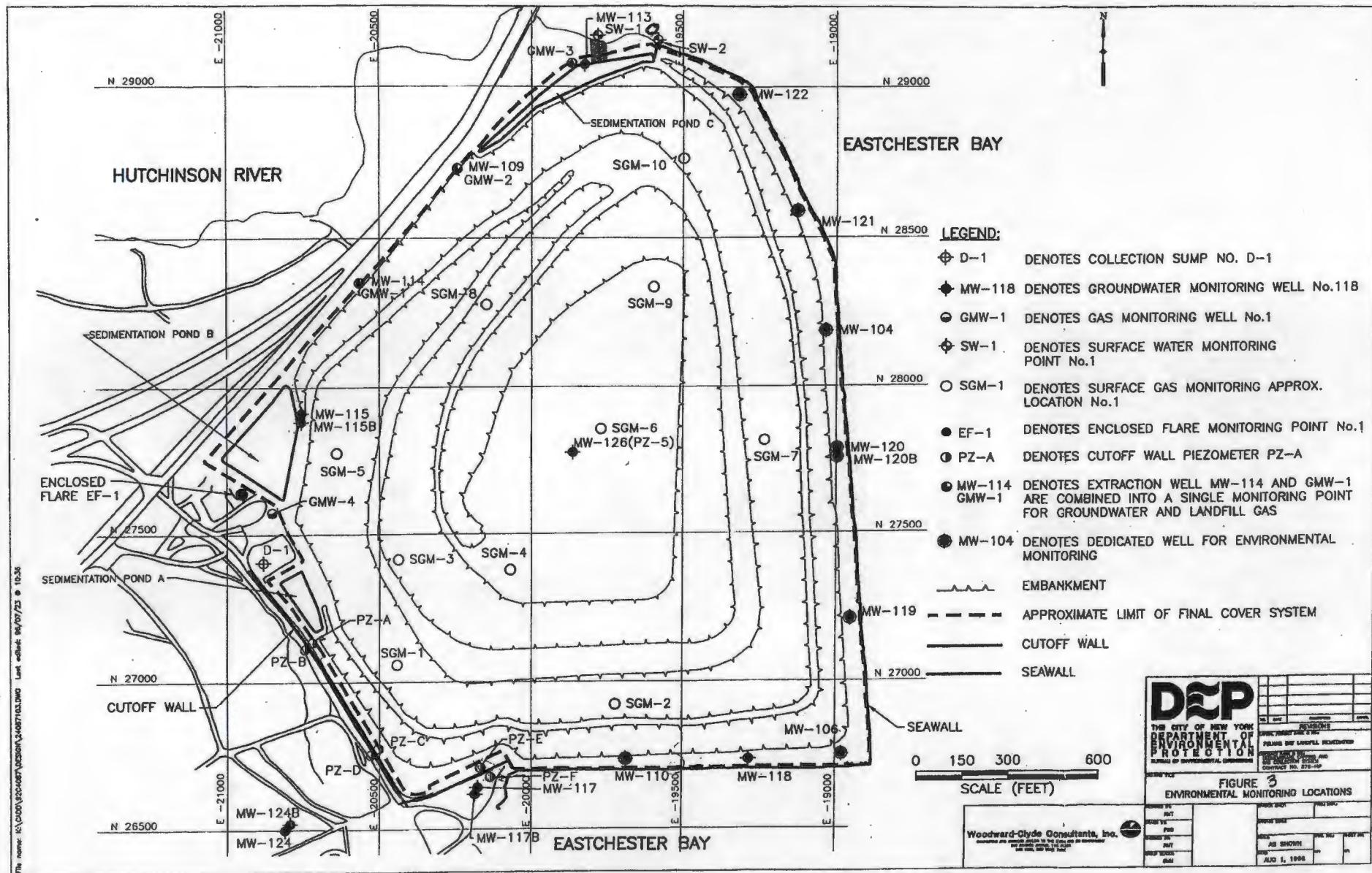


Table 3

Gas Extraction Well Readings

Table 3
Gas Extraction Well Summary
Pelham Bay Landfill
Annual Report March 2009 through December 2009
Contract 1140-PEL

Date	03/06/09	03/11/09	03/17/09	03/31/09	04/10/09	04/24/09	04/30/09	05/20/09	06/30/09	07/22/09	08/10/09	09/02/09	11/03/09	11/19/09	12/28/09
Well Head No. 18															
CH ₄ %	22.1%	31.7%	32.4%	32.4%	32.2%	36.6%	35.4%	41.5%	16.1%	21.4%	19.3%	18.9%	28.1%	25.8%	35.9%
CO ₂ %	21.5%	23.0%	24.3%	20.7%	20.4%	19.6%	19.5%	19.0%	18.3%	19.1%	18.4%	18.0%	19.6%	18.8%	24.1%
O ₂ %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%
Well Head No. 19															
CH ₄ %	15.8%	21.5%	20.7%	23.8%	23.8%	27.2%	25.8%	32.2%	15.4%	16.9%	15.7%	10.2%	20.2%	19.8%	33.6%
CO ₂ %	18.9%	19.6%	18.8%	18.2%	17.6%	17.2%	16.4%	6.1%	15.5%	16.7%	14.1%	17.1%	17.9%	16.8%	23.1%
O ₂ %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.2%	0.2%	0.0%	0.2%	0.0%	0.0%	0.3%
Well Head No. 20															
CH ₄ %	38.2%	40.1%	30.8%	41.7%	42.4%	44.8%	45.6%	49.1%	44.5%	39.8%	29.6%	27.8%	37.1%	40.1%	42.2%
CO ₂ %	25.1%	25.6%	26.4%	26.1%	25.3%	24.3%	24.9%	24.4%	22.7%	22.7%	21.7%	22.1%	24.6%	23.6%	26.5%
O ₂ %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Well Head No. 21															
CH ₄ %	27.1%	36.4%	37.3%	7.9%	37.1%	32.7%	28.6%	23.8%	32.1%	9.7%	22.0%	1.0%	30.8%	32.5%	34.6%
CO ₂ %	16.4%	19.4%	20.3%	5.7%	16.1%	13.5%	12.2%	7.9%	17.0%	4.4%	16.0%	6.0%	16.3%	16.9%	18.7%
O ₂ %	0.0%	0.0%	0.0%	16.8%	3.0%	2.2%	7.4%	11.2%	0.6%	14.5%	1.1%	13.0%	0.0%	0.0%	0.0%
Well Head No. 22															
CH ₄ %	23.1%	28.1%	37.6%	8.5%	33.9%	27.1%	36.1%	33.3%	17.0%	17.5%	8.9%	5.1%	20.4%	26.8%	26.5%
CO ₂ %	15.3%	15.9%	14.6%	4.2%	15.2%	10.4%	14.9%	10.7%	6.4%	8.6%	3.8%	4.7%	12.1%	15.2%	15.5%
O ₂ %	0.0%	0.4%	0.2%	15.8%	1.2%	0.8%	1.5%	5.4%	10.9%	7.6%	14.9%	13.0%	3.1%	0.0%	0.0%

Table 3
Gas Extraction Well Summary
Pelham Bay Landfill

Table 4

Gas Monitoring and Surface Gas Readings

**SEVERN TRENT
ENVIRONMENTAL SERVICES
100 MORRIS AVENUE
GLEN COVE, NY 11542**

**PELHAM BAY LANDFILL
GAS MONITORING WELL READINGS**

Date: March 6- 31, 2009 Sampler: J. Matthews/Ross Hibler

Date	3/6/09	3/11/09	3/13/09	3/16/09	3/17/09	3/20/09	3/26/09	3/31/09
Weather	Clear 38	Cloudy 49	Partly Cloudy 50's	Cloudy 49	Partly Cloudy 50's	Clear 50's	Cloudy 50's	Clear 58
GMW-1	11:34	12:13	08:20	13:00	10:50	11:55	09:45	13:02
CH4 %	0.4	0.6	0.2	0.2	0.1	0	0.3	0.6
CO2 %	0.4	2.6	0.1	0.3	0.2	0	2.7	0.1
O2 %	20.0	15.1	20.5	20.1	20.3	20.2	15.1	21.4
GMW-2	11:45	12:25	08:35	12:40	11:05	12:07	10:01	13:15
CH4 %	0.3	0.5	0.2	0.2	0.1	0	0.3	0.6
CO2 %	0.2	0.6	0.1	0.1	0.2	0	0.2	0.1
O2 %	20.2	19.7	20.6	20.6	20.9	20.5	20.2	21.2
GMW-3	12:27	12:45	12:28	13:45	11:18	12:24	10:20	13:39
CH4 %	0.5	0.5	0.2	0.4	0.2	0.2	0.4	0.6
CO2 %	0.7	0.4	2.4	2.7	0.2	2.1	4.6	2.1
O2 %	19.6	20.6	18.3	16.7	20.4	17.3	13.1	16.3
GMW-4	11:10	12:01	08:05	12:20	11:34	11:45	9:23	12:51
CH4 %	0.4	0.6	0.1	0.1	0.4	0	0.2	0.5
CO2 %	2.9	4.2	0.2	0.3	2.4	0	2.8	0.5
O2 %	17.3	12.1	20.3	20.3	16.2	20.3	14.8	20.9

Note: Gas wells were purged 3 well volumes with vacuum pump prior to collecting gas reading

**SEVERN TRENT
ENVIRONMENTAL SERVICES
100 MORRIS AVENUE
GLEN COVE, NY 11542**

**PELHAM BAY LANDFILL
GAS MONITORING WELL READINGS**

Date:

April 8- 30, 2009

Sampler: J. Matthews/Ross Hibler

Date	4/8/09	4/10/09	4/20/09	4/21/09	4/24/09	4/30/09
Weather	Rain 46	Cloudy 50	Rain 50's	Rain 50's	Clear 66	Cloudy 68
GMW-1	11:35	13:39	07:19	09:20	11:03	12:44
CH4 %	0.5	0.3	0.5	0.5	0.7	0.8
CO2 %	0.7	0.2	4.3	2.3	0.5	0.6
O2 %	20.6	20.3	17.4	13.5	20.9	20.8
GMW-2	11:52	13:55	07:38	09:33	11:12	12:51
CH4 %	0.5	0.4	0.4	0.5	0.7	0.9
CO2 %	0.1	0.6	3.8	2.7	0.1	0.2
O2 %	21.0	20.1	19.1	15.9	20.9	20.9
GMW-3	12:19	14:18	08:13	09:50	11:27	13:15
CH4 %	0.4	0.6	0.5	0.5	0.8	0.9
CO2 %	1.2	1.9	9.8	5.5	5.9	5.7
O2 %	18.6	18.1	12.4	10.6	8.7	10.4
GMW-4	11:20	13:29	07:00	09:07	10:51	12:36
CH4 %	0.4	0.3	0.5	0.5	0.7	0.8
CO2 %	0.3	0.7	10.1	8.6	0.8	1.4
O2 %	20.7	20.5	6.1	2.7	20.3	20.1

Note: Gas wells were purged 3 well volumes with vacuum pump prior to collecting gas reading

**SEVERN TRENT
ENVIRONMENTAL SERVICES
100 MORRIS AVENUE
GLEN COVE, NY 11542**

**PELHAM BAY LANDFILL
GAS MONITORING WELL READINGS**

Date:

May 8-27, 2009

Sampler: J. Matthews/Ross Hibler

Date	5/8/09	5/13/09	5/15/09	5/19/09	5/20/09	5/27/09
Weather	Clear 65	Clear 72	Clear 75	Clear 64	Clear 78	Rain 65
GMW-1	09:16	11:45	12:20	09:02	14:21	09:00
CH4 %	0.4	0.5	0.4	0.4	0.9	0.8
CO2 %	4	0.5	0.4	0.2	0.5	0.4
O2 %	8	20.5	20.3	20.8	18.3	17.9
GMW-2	09:30	12:00	12:35	09:17	14:32	09:18
CH4 %	0.5	0.6	0.6	0.4	0.9	0.9
CO2 %	0.3	0.2	0.2	0.1	0.3	0.6
O2 %	20.4	20.6	20.4	20.9	19.1	18.7
GMW-3	09:53	12:18	12:55	09:43	14:08	09:44
CH4 %	0.6	0.6	0.5	0.5	1.3	1.1
CO2 %	6.1	7.3	6.7	8.2	3.1	2.7
O2 %	9	5.7	9.8	5.5	9.2	10.7
GMW-4	10:09	11:30	12:00	10:02	14:52	10:12
CH4 %	0.7	0.4	0.3	0.6	1.0	1.2
CO2 %	2.9	1.8	1.3	1.9	1.3	1.8
O2 %	16.4	19.6	20.4	19.6	17.4	15.9

Note: Gas wells were purged 3 well volumes with vacuum pump prior to collecting gas reading

**SEVERN TRENT
ENVIRONMENTAL SERVICES
100 MORRIS AVENUE
GLEN COVE, NY 11542**

**PELHAM BAY LANDFILL
GAS MONITORING WELL READINGS**

Date: June 9-30, 2009 Sampler: J. Matthews/Ross Hibler

Date	6/2/09	6/11/09	6/12/09	6/16/09	6/30/09
Weather	Cloudy 82	Cloudy 63	Cloudy 67	Cloudy 64	Hazy 80's
GMW-1	11:32	09:16	08:13	10:38	11:20
CH4 %	0.9	7.1	0.6	0.5	0.7
CO2 %	2.7	14.8	0.8	0.3	0.2
O2 %	17.5	0.1	20.6	20.8	20.2
GMW-2	11:50	09:29	08:24	10:48	11:39
CH4 %	0.8	2.3	0.6	0.6	0.8
CO2 %	0.9	6.1	0.2	0.1	0.2
O2 %	20.2	11.5	20.7	20.9	19.9
GMW-3	12:31	09:47	08:40	11:06	11:57
CH4 %	1.1	0.6	0.6	0.6	0.9
CO2 %	6.9	0.5	0.9	0.9	0.9
O2 %	8.3	20.1	19.4	19.9	19.3
GMW-4	11:02	9:02	7:59	10:23	11:06
CH4 %	0.9	6	0.6	0.5	0.6
CO2 %	4.2	15	1.8	0.2	0.7
O2 %	15.9	0.2	18.6	20.9	19.8

Note: Gas wells were purged 3 well volumes with vacuum pump prior to collecting gas reading

**SEVERN TRENT
ENVIRONMENTAL SERVICES
100 MORRIS AVENUE
GLEN COVE, NY 11542**

**PELHAM BAY LANDFILL
GAS MONITORING WELL READINGS**

Date:
Hibler

July through September, 2009

Sampler: J. Matthews/Ross

Date	7/22/09	8/10/09	8/26/09	9/2/09	9/30/09
Weather	Sunny 80	Sunny 88	Sunny 83	Ptly Cloudy 71	Overcast 65
GMW-1	10.55	10.05	11.38	7.50	11.37
CH4 %	0.6	0.6	0.7	0.4	0.3
CO2 %	0.8	3.7	6.6	1.0	2.3
O2 %	20.2	17.1	1.1	18.4	18.0
GMW-2	11.13	10.28	11.48	8.06	11.20
CH4 %	0.7	0.5	0.6	0.4	0.2
CO2 %	0.1	2.1	2.2	0.3	0.3
O2 %	20.5	16.2	12.8	20.1	20.1
GMW-3	11.28	10.56	12.10	8.22	11.05
CH4 %	1.2	0.6	0.6	0.4	0.3
CO2 %	0.9	8.2	1.6	1.3	2.2
O2 %	10.7	6.1	17.2	18.7	17.4
GMW-4	10.35	10.40	11.25	7.34	10.33
CH4 %	0.6	0.5	0.7	0.5	0.4
CO2 %	0.2	0.7	6.4	1.2	2.8
O2 %	20.4	19.6	1.6	19.0	18.0

Note: Gas wells were purged 3 well volumes with vacuum pump prior to collecting gas reading

**SEVERN TRENT
ENVIRONMENTAL SERVICES
100 MORRIS AVENUE
GLEN COVE, NY 11542**

**PELHAM BAY LANDFILL
GAS MONITORING WELL READINGS**

Date: October through December, 2009 Sampler: J. Matthews/Ross Hibler

Date	10/14/09	10/16/09	11/03/09	11/06/09	11/18/09	11/24/09	12/04/09	12/15/09	12/29/09
Weather	Cloudy 40-50	Rain 40-50	Cloudy 58	Clear 50	Cloudy 56	Clear 50	Cloudy 30	Cloudy 45	Cloudy 40
GMW-1	8:47	8:38	7:47	8:52	11:27	10:19	12:17	7:21	10:29
CH4 %	0.3	0.3	0.1	0	0.1	0	0	0	0
CO2 %	2.6	1.9	0.2	0.3	0.1	0.1	0.1	0.3	0.1
O2 %	16.3	16.9	20.2	20.8	20.9	20.7	20.5	20.0	20.1
GMW-2	9:09	8:51	7:58	9:01	11:41	10:41	12:33	7:34	10:47
CH4 %	0.4	0.3	0	0	0	0	0	0	0
CO2 %	1.7	2.3	0.2	0.1	0	0	0	0	0
O2 %	20.5	18.7	20.6	20.9	21.1	20.8	20.8	20.5	20.2
GMW-3	9:36	9:17	8:21	9:17	12:16	11:17	12:57	8:12	11:16
CH4 %	0.3	0.4	0	0	0.1	0	0	0.1	0
CO2 %	2.3	2.7	0.1	0.1	2.5	0.1	0	0.7	0.4
O2 %	16.4	15.2	20.7	19.9	18.1	18.9	19.3	18.9	18.9
GMW-4	8:30	8:14	7:30	8:31	11:12	9:55	12:00	7:00	10:10
CH4 %	0.4	0.4	0.2	0	0	0	0	0	0
CO2 %	1.9	1.6	0.2	0.3	0.1	0.1	0.1	0.4	0.1
O2 %	18.2	17.7	18.9	20.7	20.6	21.0	20.3	20.1	20.3

Note: Gas wells were purged 3 well volumes with vacuum pump prior to collecting gas reading

**SEVERN TRENT
ENVIRONMENTAL SERVICES
100 MORRIS AVENUE
GLEN COVE, NY 11542**

**PELHAM BAY LANDFILL
SURFACE GAS READINGS**

Date: 4/15/09 Sampler: Ross Hibler

Weather Cloudy, drizzling rain

Location	Methane (ppm)
SGM-1	0.2
SGM-2	0.7
SGM-3	0.0
SGM-4	0.5
SGM-5	0.2
SGM-6	0.6
SGM-7	0.0
SGM-8	0.0
SGM-9	0.0
SGM10	0.0

**SEVERN TRENT
ENVIRONMENTAL SERVICES
100 MORRIS AVENUE
GLEN COVE, NY 11542**

**PELHAM BAY LANDFILL
SURFACE GAS READINGS**

Date: 10/21/09

Sampler: R. Hibler

Weather: 60⁰ F, Partly Cloudy

Location	Methane (ppm)
SGM-1	0.0
SGM-2	0.0
SGM-3	0.0
SGM-4	0.0
SGM-5	0.0
SGM-6	0.0
SGM-7	0.0
SGM-8	0.0
SGM-9	0.0
SGM10	0.0

Signature: _____

Table 5A

Schedule A Parameters

Table 5A

Schedule A Parameters

Table 5A
Leachate Schedule A Parameters
Pelham Bay Landfill
Annual Report March 2009 through December 2009
Contract 1140-PEL

1,1 Dichloroethene	Acenaphthene	Aldrin
1,2 Dichloroethane	Acenaphthylene	b BHC
	Anthracene	Chlordane
1,2 Dichloroethene	Benzo(a)anthracene	d BHC
1,2 Dichloropropane	Benzo(a)pyrene	Dieldrin
111 Trichloroethane	Benzo(b)fluoranthene	Endosulfan 1
112 Trichloroethane	Benzo(ghi)perylene	Endosulfan 2
1122Tetrachloroethane	Benzo(k)fluoranthene	Endosulfan Sulfate
2-Butanone	BenzylButylPhthalate	Endrin
2-Hexanone	Bis(2-chloroethoxy)methane	Endrin Aldehyde
4-Methyl-2-Pentanone	Bis(2-chloroethyl)ether	Endrin Ketone
Acetone	Bis(2-chloroisopropyl)ether	Heptachlor
Benzene	Bis(2-ethylhexyl)phthalate	Heptachlor Epoxide
Bromodichloromethane	Carbazole	Lindane
Bromoform	Chrysene	Methoxychlor
Bromomethane	Di-n-Butyl Phthalate	p,p-DDD
c-1,3Dichloropropene	Di-n-octyl Phthalate	p,p-DDE
Carbon disulfide	Dibenzo(a,h)anthracene	p,p-DDT
Carbon Tetrachloride	Dibenzofuran	Toxaphene
Chlorobenzene	Diethyl Phthalate	Aroclor 1016
Chlorodibromomethane	Dimethyl Phthalate	Aroclor 1221
Chloroethane	Fluoranthene	Aroclor 1232
Chloroform	Fluorene	Aroclor 1242
Chloromethane	Hexachlorobenzene	Aroclor 1248
Ethyl Benzene	Hexachlorobutadiene	Aroclor 1254
m + p Xylene	Hexachlorocyclopentadiene	Aroclor 1260
Methylene Chloride	Hexachloroethane	Aluminum as Al
o Xylene	Indeno(1,2,3-cd)pyrene	Antimony as Sb
Styrene	Isophorone	Arsenic as As
t-1,3Dichloropropene	N-Nitrosodi-n-propylamine	Barium as Ba
Tetrachloroethene	N-Nitrosodiphenylamine	Beryllium as Be
Toluene	Naphthalene(sv)	Cadmium as Cd
Trichloroethene	Nitrobenzene	Calcium as Ca
Vinyl Chloride	Phenanthrene	Chromium as Cr
Xylene	Pyrene	Cobalt as Co
1,2 Dichlorobenzene(sv)	2,4,5-Trichlorophenol	Copper as Cu
1,3 Dichlorobenzene(sv)	2,4,6-Trichlorophenol	Iron as Fe
1,4 Dichlorobenzene(sv)	2,4-Dichlorophenol	Lead as Pb
124-Trichlorobenzene (sv)	2,4-Dimethylphenol	Magnesium as Mg
2,4-Dinitrotoluene	2,4-Dinitrophenol	Manganese as Mn
2,6-Dinitrotoluene	2-Chlorophenol	Mercury as Hg
2-Chloronaphthalene	2-Methyl-4,6-dinitrophenol	Nickel as Ni
2-Methylnaphthalene	2-Methylphenol (o-cresol)	Potassium as K
2-Nitroaniline	2-Nitrophenol	Selenium as Se
3,3'-Dichlorobenzidine	4-Chloro-3-methylphenol	Silver as Ag
3-methylaniline	4-Methylphenol (p-cresol)	Sodium as Na
4-Bromophenyl phenyl ether	4-Nitrophenol	Thallium as Tl
4-Chloroaniline	Pentachlorophenol (ms)	Vanadium as V
4-Chlorophenyl phenyl ether	Phenol	Zinc as Zn
4-Nitroaniline	a BHC	Cyanide as SCN

Table 5A
Leachate Schedule A Parameters
Pelham Bay Landfill
Annual Report March 2009 through December 2009
Contract 1140-PEL

1,1 Dichloroethene	Acenaphthene	Aldrin
1,2 Dichloroethane	Acenaphthylene	b BHC
1,2 Dichloroethene	Anthracene	Chlordane
1,2 Dichloropropane	Benzo(a)anthracene	d BHC
111 Trichloroethane	Benzo(a)pyrene	Dieldrin
112 Trichloroethane	Benzo(b)fluoranthene	Endosulfan 1
112Tetrachloroethane	Benzo(ghi)perylene	Endosulfan 2
2-Butanone	Benzo(k)fluoranthene	Endosulfan Sulfate
2-Hexanone	BenzylButylPhthalate	Endrin
4-Methyl-2-Pentanone	Bis(2-chloroethoxy)methane	Endrin Aldehyde
Acetone	Bis(2-chloroethyl)ether	Endrin Ketone
Benzene	Bis(2-chloroisopropyl)ether	Heptachlor
Bromodichloromethane	Bis(2-ethylhexyl)phthalate	Heptachlor Epoxide
Bromoform	Carbazole	Lindane
Bromomethane	Chrysene	Methoxychlor
c-1,3Dichloropropene	Di-n-Butyl Phthalate	p,p-DDD
Carbon disulfide	Di-n-octyl Phthalate	p,p-DDE
Carbon Tetrachloride	Dibenzo(a,h)anthracene	p,p-DDT
Chlorobenzene	Dibenzofuran	Toxaphene
Chlorodibromomethane	Diethyl Phthalate	Aroclor 1016
Chloroethane	Dimethyl Phthalate	Aroclor 1221
Chloroform	Fluoranthene	Aroclor 1232
Chloromethane	Fluorene	Aroclor 1242
Ethyl Benzene	Hexachlorobenzene	Aroclor 1248
m + p Xylene	Hexachlorobutadiene	Aroclor 1254
Methylene Chloride	Hexachlorocyclopentadiene	Aroclor 1260
o Xylene	Hexachloroethane	Aluminum as Al
Styrene	Indeno(1,2,3-cd)pyrene	Antimony as Sb
t-1,3Dichloropropene	Isophorone	Arsenic as As
Tetrachloroethene	N-Nitrosodi-n-propylamine	Barium as Ba
Toluene	N-Nitrosodiphenylamine	Beryllium as Be
Trichloroethene	Naphthalene(sv)	Cadmium as Cd
Vinyl Chloride	Nitrobenzene	Calcium as Ca
Xylene	Phenanthrene	Chromium as Cr
1,2 Dichlorobenzene(sv)	Pyrene	Cobalt as Co
1,3 Dichlorobenzene(sv)	2,4,5-Trichlorophenol	Copper as Cu
1,4 Dichlorobenzene(sv)	2,4,6-Trichlorophenol	Iron as Fe
124-Trichlorobenzene (sv)	2,4-Dichlorophenol	Lead as Pb
2,4-Dinitrotoluene	2,4-Dimethylphenol	Magnesium as Mg
2,6-Dinitrotoluene	2,4-Dinitrophenol	Manganese as Mn
2-Chloronaphthalene	2-Chlorophenol	Mercury as Hg
2-Methylnaphthalene	2-Methyl-4,6-dinitrophenol	Nickel as Ni
2-Nitroaniline	2-Methylphenol (o-cresol)	Potassium as K
3,3'-Dichlorobenzidine	2-Nitrophenol	Selenium as Se
3-moaniline	4-Chloro-3-methylphenol	Silver as Ag
4-Bromophenyl phenyl ether	4-Methylphenol (p-cresol)	Sodium as Na
4-Chloroaniline	4-Nitrophenol	Thallium as Tl
4-Chlorophenyl phenyl ether	Pentachlorophenol (ms)	Vanadium as V
4-Nitroaniline	Phenol	Zinc as Zn
	a BHC	Cyanide as SCN

Tables 5B

Groundwater Monitoring Wells Analytical Results

Tables 5B

Groundwater Monitoring Wells Analytical Results

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PFI

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 104						
			Feb-06	May-06	Nov-06	Jul-07	DISSOLVED	Jul-07	Dec-07
Cyanide, Total	mg/l	.4	0.0357 N	0.0116	0.04	< 0.02		0.03	
Aluminum (Al)	mg/l	2	< 0.0208 U	0.594	0.86	0.55	0.02	0.52	< 0.05
Antimony (Sb)	mg/l	.006	< 0.005 U	< 0.0054 U	< 0.01	0.011	0.005	0.031	< 0.025
Arsenic (As)	mg/l	.05	0.0378 N	< 0.0039 U	< 0.005	0.014	0.013	< 0.025	< 0.025
Barium (Ba)	mg/l	2	0.208 B	0.281 N	0.37	0.2	0.18	0.18	0.19
Beryllium (Be)	mg/l	.003	< 0.0008 U	< 0.00054 UN	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.0016 U	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025
Calcium (Ca)	mg/l		283	203	300	250	310	290	310
Chromium (Cr)	mg/l	.1	0.0044 B	0.003 BN	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025
Cobalt (Co)	mg/l		< 0.0038 U	< 0.0018 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025
Copper (Cu)	mg/l	1	< 0.0024 U	0.0116	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05
Iron (Fe)	mg/l	.6	0.0787 B	2.13 N	3.1	1.3	0.04	1.8	0.77
Lead (Pb)	mg/l	.05	0.0115	0.0077 B	0.019	0.007	< 0.005	< 0.025	< 0.025
Magnesium (Mg)	mg/l	35	769 E	633	840	730	910	870	940
Manganese (Mn)	mg/l	.6	< 0.0042 U	< 0.0069 U	0.02	0.06	0.06	0.08	< 0.05
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Nickel (Ni)	mg/l	.2	< 0.0046 U	< 0.0019 U	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05
Potassium (K)	mg/l		695 E	346	450	390	510	470	550
Selenium (Se)	mg/l	.02	0.0459 *	< 0.005 UN	< 0.004	< 0.01	< 0.01	< 0.05	< 0.05
Silver (Ag)	mg/l	.1	0.0032 B	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025
Sodium (Na)	mg/l		9860 E	215	6700	5600	7400	7600	8500
Thallium (Tl)	mg/l	.0005	0.0074 B	0.0106 B	< 0.01	< 0.01	< 0.01	< 0.025	< 0.025
Vanadium (V)	mg/l		0.0046 B	0.0072 N	0.009	< 0.005	< 0.005	< 0.025	< 0.025
Zinc (Zn)	mg/l	5	< 0.005 U	0.0232 B	0.05	0.02	0.01	0.07	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 104					
			Feb-06	May-06	Nov-06	Jul-07	DISSOLVED	Dec-07
Cyanide, Total	mg/l	.4	0.0357 N	0.0116	0.04	< 0.02	0.03	
Aluminum (Al)	mg/l	2	< 0.0208 U	0.594	0.86	0.55	0.02	0.52 < 0.05
Antimony (Sb)	mg/l	.006	< 0.005 U	< 0.0054 U	< 0.01	0.011	0.005	0.031 < 0.025
Arsenic (As)	mg/l	.05	0.0378 N	< 0.0039 U	< 0.005	0.014	0.013	< 0.025 < 0.025
Barium (Ba)	mg/l	2	0.208 B	0.281 N	0.37	0.2	0.18	0.18 0.19
Beryllium (Be)	mg/l	.003	< 0.0008 U	< 0.00054 UN	< 0.001	< 0.001	< 0.001	< 0.005 < 0.005
Cadmium (Cd)	mg/l	.01	< 0.0016 U	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025 < 0.025
Calcium (Ca)	mg/l		283	203	300	250	310	290 310
Chromium (Cr)	mg/l	.1	0.0044 B	0.003 BN	< 0.005	< 0.005	< 0.005	< 0.025 < 0.025
Cobalt (Co)	mg/l		< 0.0038 U	< 0.0018 U	< 0.005	< 0.005	< 0.005	< 0.025 < 0.025
Copper (Cu)	mg/l	1	< 0.0024 U	0.0116	< 0.01	< 0.01	< 0.01	< 0.05 < 0.05
Iron (Fe)	mg/l	.6	0.0787 B	2.13 N	3.1	1.3	0.04	1.8 0.77
Lead (Pb)	mg/l	.05	0.0115	0.0077 B	0.019	0.007	< 0.005	< 0.025 < 0.025
Magnesium (Mg)	mg/l	35	769 E	633	840	730	910	870 940
Manganese (Mn)	mg/l	.6	< 0.0042 U	< 0.0069 U	0.02	0.06	0.06	0.08 < 0.05
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0003	< 0.0003	< 0.0003	< 0.0003 < 0.0003
Nickel (Ni)	mg/l	.2	< 0.0046 U	< 0.0019 U	< 0.01	< 0.01	< 0.01	< 0.05 < 0.05
Potassium (K)	mg/l		695 E	346	450	390	510	470 550
Selenium (Se)	mg/l	.02	0.0459 *	< 0.005 UN	< 0.004	< 0.01	< 0.01	< 0.05 < 0.05
Silver (Ag)	mg/l	.1	0.0032 B	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025 < 0.025
Sodium (Na)	mg/l		9860 E	215	6700	5600	7400	7600 8500
Thallium (Tl)	mg/l	.0005	0.0074 B	0.0106 B	< 0.01	< 0.01	< 0.01	< 0.025 < 0.025
Vanadium (V)	mg/l		0.0046 B	0.0072 N	0.009	< 0.005	< 0.005	< 0.025 < 0.025
Zinc (Zn)	mg/l	5	< 0.005 U	0.0232 B	0.05	0.02	0.01	0.07 < 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 104					
			Mar-08	DISSOLVED Mar-08	Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09
Cyanide, Total	mg/l	.4	0.03		0.03		< 0.04	---
Aluminum (Al)	mg/l	2	0.03	0.02	0.22	0.03	0.03	0.02
Antimony (Sb)	mg/l	.006	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01
Arsenic (As)	mg/l	.05	0.009	0.011	< 0.005	0.009	0.014	0.018
Barium (Ba)	mg/l	2	0.15	0.15	0.14	0.14	0.12	0.12
Beryllium (Be)	mg/l	.003	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01
Calcium (Ca)	mg/l		300	310	280	290	310	310
Chromium (Cr)	mg/l	.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01
Cobalt (Co)	mg/l			< 0.005	< 0.005	< 0.005	< 0.01	< 0.01
Copper (Cu)	mg/l	1	< 0.01	< 0.01	0.1	0.1	< 0.02	< 0.02
Iron (Fe)	mg/l	.6	0.06	0.02	0.67	0.22	0.09	0.06
Lead (Pb)	mg/l	.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01
Magnesium (Mg)	mg/l	35	960	1000	870	930	890	890
Manganese (Mn)	mg/l	.6	< 0.01	< 0.01	< 0.01	0.05	0.03	0.03
Mercury (Hg)	mg/l	.0014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.02
Potassium (K)	mg/l		660	700	490	520	470	470
Selenium (Se)	mg/l	.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.02
Silver (Ag)	mg/l	.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01
Sodium (Na)	mg/l		7100	7400	6800	7200	8300	8300
Thallium (Tl)	mg/l	.0005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01
Vanadium (V)	mg/l			< 0.005	< 0.005	< 0.005	< 0.01	< 0.01
Zinc (Zn)	mg/l	5	0.01	0.01	< 0.01	0.02	0.02	0.02
							< 0.05	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 104							
			Mar-08	DISSOLVED Mar-08	Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09	DISSOLVED Oct-09
Cyanide, Total	mg/l	.4	0.03		0.03		< 0.04	---	< 0.02	---
Aluminum (Al)	mg/l	2	0.03	0.02	0.22	0.03	0.03	0.02	< 0.05	< 0.05
Antimony (Sb)	mg/l	.006	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	0.028	0.033
Arsenic (As)	mg/l	.05	0.009	0.011	< 0.005	0.009	0.014	0.018	< 0.025	< 0.025
Barium (Ba)	mg/l	2	0.15	0.15	0.14	0.14	0.12	0.12	0.1	0.11
Beryllium (Be)	mg/l	.003	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.002	< 0.005	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Calcium (Ca)	mg/l		300	310	280	290	310	310	300	290
Chromium (Cr)	mg/l	.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Cobalt (Co)	mg/l			< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Copper (Cu)	mg/l	1	< 0.01	< 0.01	0.1	0.1	< 0.02	< 0.02	< 0.05	< 0.05
Iron (Fe)	mg/l	.6	0.06	0.02	0.67	0.22	0.09	0.06	0.37	0.09
Lead (Pb)	mg/l	.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Magnesium (Mg)	mg/l	35	960	1000	870	930	890	890	950	940
Manganese (Mn)	mg/l	.6	< 0.01	< 0.01	< 0.01	0.05	0.03	0.03	0.06	0.06
Mercury (Hg)	mg/l	.0014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.02	< 0.05	< 0.05
Potassium (K)	mg/l		660	700	490	520	470	470	460	450
Selenium (Se)	mg/l	.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.02	< 0.05	< 0.05
Silver (Ag)	mg/l	.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Sodium (Na)	mg/l		7100	7400	6800	7200	8300	8300	7500	7400
Thallium (Tl)	mg/l	.0005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.025	< 0.025
Vanadium (V)	mg/l			< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025
Zinc (Zn)	mg/l	5	0.01	0.01	< 0.01	0.02	0.02	0.02	< 0.05	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 106						
			Aug-07	DISSOLVED	Aug-07	Dec-07	DISSOLVED	Mar-08	DISSOLVED
Cyanide, Total	mg/l	.4	< 0.02		< 0.02		0.02		
Aluminum (Al)	mg/l	2	0.05	0.03	< 0.05	< 0.05	0.36	0.03	
Antimony (Sb)	mg/l	.006	0.0097	0.008	0.04	0.027	< 0.005	< 0.005	
Arsenic (As)	mg/l	.05	0.012	0.009	< 0.025	< 0.025	0.014	0.011	
Barium (Ba)	mg/l	2	0.094	0.095	0.088	0.091	0.15	0.11	
Beryllium (Be)	mg/l	.003	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001	< 0.001	
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	
Calcium (Ca)	mg/l	290	310	290	300	250	220		
Chromium (Cr)	mg/l	.1	0.014	0.013	< 0.025	< 0.025	0.016	0.011	
Cobalt (Co)	mg/l		< 0.005	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	
Copper (Cu)	mg/l	1	0.03	0.02	< 0.05	< 0.05	0.08	< 0.01	
Iron (Fe)	mg/l	.6	0.75	0.36	0.44	0.27	47	0.65	
Lead (Pb)	mg/l	.05	< 0.005	< 0.005	< 0.025	< 0.025	0.079	< 0.005	
Magnesium (Mg)	mg/l	35	850	900	860	900	760	820	
Manganese (Mn)	mg/l	.6	0.07	0.08	0.06	< 0.05	0.05	0.03	
Mercury (Hg)	mg/l	.0014	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.001	< 0.001	
Nickel (Ni)	mg/l	.2	0.02	0.02	< 0.05	< 0.05	< 0.01	< 0.01	
Potassium (K)	mg/l		520	540	420	450	550	640	
Selenium (Se)	mg/l	.02	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	
Silver (Ag)	mg/l	.1	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	
Sodium (Na)	mg/l		6700	7200	7900	8300	5900	6400	
Thallium (Tl)	mg/l	.0005	< 0.1	< 0.1	< 0.025	< 0.025	< 0.005	< 0.005	
Vanadium (V)	mg/l		0.007	0.006	< 0.025	< 0.025	0.068	0.017	
Zinc (Zn)	mg/l	5	0.17	0.16	0.25	0.24	0.3	0.03	

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 106					
			Aug-07	DISSOLVED Aug-07	Dec-07	DISSOLVED Dec-07	Mar-08	DISSOLVED Mar-08
Cyanide, Total	mg/l	.4	< 0.02		< 0.02		0.02	
Aluminum (Al)	mg/l	2	0.05	0.03	< 0.05	< 0.05	0.36	0.03
Antimony (Sb)	mg/l	.006	0.0097	0.008	0.04	0.027	< 0.005	< 0.005
Arsenic (As)	mg/l	.05	0.012	0.009	< 0.025	< 0.025	0.014	0.011
Barium (Ba)	mg/l	2	0.094	0.095	0.088	0.091	0.15	0.11
Beryllium (Be)	mg/l	.003	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001	< 0.001
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005
Calcium (Ca)	mg/l	290	310	290	300	250	220	
Chromium (Cr)	mg/l	.1	0.014	0.013	< 0.025	< 0.025	0.016	0.011
Cobalt (Co)	mg/l		< 0.005	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005
Copper (Cu)	mg/l	1	0.03	0.02	< 0.05	< 0.05	0.08	< 0.01
Iron (Fe)	mg/l	.6	0.75	0.36	0.44	0.27	47	0.65
Lead (Pb)	mg/l	.05	< 0.005	< 0.005	< 0.025	< 0.025	0.079	< 0.005
Magnesium (Mg)	mg/l	35	850	900	860	900	760	820
Manganese (Mn)	mg/l	.6	0.07	0.08	0.06	< 0.05	0.05	0.03
Mercury (Hg)	mg/l	.0014	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	0.02	0.02	< 0.05	< 0.05	< 0.01	< 0.01
Potassium (K)	mg/l		520	540	420	450	550	640
Selenium (Se)	mg/l	.02	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01
Silver (Ag)	mg/l	.1	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005
Sodium (Na)	mg/l		6700	7200	7900	8300	5900	6400
Thallium (Tl)	mg/l	.0005	< 0.1	< 0.1	< 0.025	< 0.025	< 0.005	< 0.005
Vanadium (V)	mg/l		0.007	0.006	< 0.025	< 0.025	0.068	0.017
Zinc (Zn)	mg/l	5	0.17	0.16	0.25	0.24	0.3	0.03

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 106					
			Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09	DISSOLVED Oct-09
Cyanide, Total	mg/l	.4	< 0.02		< 0.02	--	< 0.02	--
Aluminum (Al)	mg/l	2	< 0.01	< 0.01	0.04	< 0.02	< 0.05	< 0.05
Antimony (Sb)	mg/l	.006	< 0.01	< 0.01	< 0.01	< 0.01	0.036	< 0.025
Arsenic (As)	mg/l	.05	< 0.005	0.067	0.03	0.03	< 0.025	< 0.025
Barium (Ba)	mg/l	2	0.11	0.11	0.092	0.087	0.083	0.085
Beryllium (Be)	mg/l	.003	< 0.001	< 0.001	< 0.002	< 0.002	< 0.005	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Calcium (Ca)	mg/l	250	270		280	280	290	300
Chromium (Cr)	mg/l	.1	< 0.005	< 0.005	0.011	0.01	< 0.025	< 0.025
Cobalt (Co)	mg/l		< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Copper (Cu)	mg/l	1	0.1	0.1	0.03	< 0.02	0.13	0.07
Iron (Fe)	mg/l	.6	2	2	0.65	0.48	0.81	0.6
Lead (Pb)	mg/l	.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Magnesium (Mg)	mg/l	35	760	850	850	830	890	920
Manganese (Mn)	mg/l	.6	0.16	0.1	0.04	0.05	0.22	0.23
Mercury (Hg)	mg/l	.0014	< 0.001	< 0.001	< 0.0003	< 0.0003	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	< 0.02	< 0.01	< 0.02	< 0.02	< 0.05	< 0.05
Potassium (K)	mg/l		500	530	450	440	460	470
Selenium (Se)	mg/l	.02	< 0.01	< 0.01	< 0.02	< 0.02	< 0.05	< 0.05
Silver (Ag)	mg/l	.1	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Sodium (Na)	mg/l		6600	7000	7800	7600	7300	7500
Thallium (Tl)	mg/l	.0005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.025	< 0.025
Vanadium (V)	mg/l		< 0.005	< 0.005	0.01	< 0.01	< 0.025	< 0.025
Zinc (Zn)	mg/l	5	< 0.01	< 0.01	0.19	0.05	0.25	0.22

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 106					
			Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09	DISSOLVED Oct-09
Cyanide, Total	mg/l	.4	< 0.02		< 0.02	—	< 0.02	—
Aluminum (Al)	mg/l	2	< 0.01	< 0.01	0.04	< 0.02	< 0.05	< 0.05
Antimony (Sb)	mg/l	.006	< 0.01	< 0.01	< 0.01	< 0.01	0.036	< 0.025
Arsenic (As)	mg/l	.05	< 0.005	0.067	0.03	0.03	< 0.025	< 0.025
Barium (Ba)	mg/l	2	0.11	0.11	0.092	0.087	0.083	0.085
Beryllium (Be)	mg/l	.003	< 0.001	< 0.001	< 0.002	< 0.002	< 0.005	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Calcium (Ca)	mg/l	250	270	280	280	290	300	
Chromium (Cr)	mg/l	.1	< 0.005	< 0.005	0.011	0.01	< 0.025	< 0.025
Cobalt (Co)	mg/l		< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Copper (Cu)	mg/l	1	0.1	0.1	0.03	< 0.02	0.13	0.07
Iron (Fe)	mg/l	.6	2	2	0.65	0.48	0.81	0.6
Lead (Pb)	mg/l	.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Magnesium (Mg)	mg/l	35	760	850	850	830	890	920
Manganese (Mn)	mg/l	.6	0.16	0.1	0.04	0.05	0.22	0.23
Mercury (Hg)	mg/l	.0014	< 0.001	< 0.001	< 0.0003	< 0.0003	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	< 0.02	< 0.01	< 0.02	< 0.02	< 0.05	< 0.05
Potassium (K)	mg/l		500	530	450	440	460	470
Selenium (Se)	mg/l	.02	< 0.01	< 0.01	< 0.02	< 0.02	< 0.05	< 0.05
Silver (Ag)	mg/l	.1	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Sodium (Na)	mg/l		6600	7000	7800	7600	7300	7500
Thallium (Tl)	mg/l	.0005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.025	< 0.025
Vanadium (V)	mg/l		< 0.005	< 0.005	0.01	< 0.01	< 0.025	< 0.025
Zinc (Zn)	mg/l	5	< 0.01	< 0.01	0.19	0.05	0.25	0.22

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 109							
			Feb-06	May-06	Nov-06	Jul-07	DISSOLVED Jul-07	Dec-07	DISSOLVED Dec-07	Mar-08
Cyanide, Total	mg/l	.4	< 0.01 UN	< 0.001 U	< 0.02	< 0.02		< 0.02		< 0.02
Aluminum (Al)	mg/l	2	0.0824 B	5.6	7.2	12	< 0.01	42	< 0.05	3.1
Antimony (Sb)	mg/l	.006	< 0.0025 U	< 0.0054 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Arsenic (As)	mg/l	.05	< 0.0031 UN	< 0.0039 U	< 0.005	0.008	0.009	< 0.025	< 0.025	0.009
Barium (Ba)	mg/l	2	0.0614 B	0.132 N	0.19	0.19	0.07	0.61	0.11	0.17
Beryllium (Be)	mg/l	.003	< 0.0004 U	< 0.00054 UN	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001
Cadmium (Cd)	mg/l	.01	< 0.0008 U	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Calcium (Ca)	mg/l	110	96.5	130	66	69	100	100	140	
Chromium (Cr)	mg/l	.1	0.0015 B	0.0214 N	0.024	0.043	< 0.005	0.21	< 0.025	0.013
Cobalt (Co)	mg/l		0.002 B	0.0111	0.011	0.016	< 0.005	0.072	< 0.025	0.008
Copper (Cu)	mg/l	1	0.0064 B	0.0177	0.02	0.03	< 0.01	0.12	< 0.05	0.02
Iron (Fe)	mg/l	.6	0.198	9.76 N	8.5	15	0.07	62	2.9	4.6
Lead (Pb)	mg/l	.05	0.0038	0.011	0.01	0.013	< 0.005	0.065	< 0.025	0.011
Magnesium (Mg)	mg/l	35	14.5 E	14.6	20	14	10	33	16	19
Manganese (Mn)	mg/l	.6	0.0397	0.0898	0.21	0.33	0.23	1.3	0.51	0.11
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0002	< 0.0003	< 0.0003	< 0.001	< 0.0003	0.00066
Nickel (Ni)	mg/l	.2	0.0082 B	0.0496	0.05	0.08	0.01	0.31	< 0.05	0.03
Potassium (K)	mg/l		4.45 BE	4.21	11	9.3	4.2	21	5.1	9.6
Selenium (Se)	mg/l	.02	< 0.0039 U*	< 0.005 UN	< 0.004	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01
Silver (Ag)	mg/l	.1	0.0019 B	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Sodium (Na)	mg/l		14.5 E	13	22	13	14	18	17	23
Thallium (Tl)	mg/l	.0005	< 0.0029 U	< 0.01 U	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025	< 0.005
Vanadium (V)	mg/l		< 0.002 U	0.0153 N	0.016	0.032	< 0.005	0.12	< 0.025	0.011
Zinc (Zn)	mg/l	5	0.018 B	0.0374 B	0.04	0.05	0.02	0.22	< 0.05	0.03

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 109							
			Feb-06	May-06	Nov-06	Jul-07	DISSOLVED	Jul-07	Dec-07	DISSOLVED
Cyanide, Total	mg/l	.4	< 0.01 UN	< 0.001 U	< 0.02	< 0.02		< 0.02		< 0.02
Aluminum (Al)	mg/l	2	0.0824 B	5.6	7.2	12	< 0.01	42	< 0.05	3.1
Antimony (Sb)	mg/l	.006	< 0.0025 U	< 0.0054 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Arsenic (As)	mg/l	.05	< 0.0031 UN	< 0.0039 U	< 0.005	0.008	0.009	< 0.025	< 0.025	0.009
Barium (Ba)	mg/l	2	0.0614 B	0.132 N	0.19	0.19	0.07	0.61	0.11	0.17
Beryllium (Be)	mg/l	.003	< 0.0004 U	< 0.00054 UN	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001
Cadmium (Cd)	mg/l	.01	< 0.0008 U	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Calcium (Ca)	mg/l	110	96.5	130	66	69	100	100	140	
Chromium (Cr)	mg/l	.1	0.0015 B	0.0214 N	0.024	0.043	< 0.005	0.21	< 0.025	0.013
Cobalt (Co)	mg/l		0.002 B	0.0111	0.011	0.016	< 0.005	0.072	< 0.025	0.008
Copper (Cu)	mg/l	1	0.0064 B	0.0177	0.02	0.03	< 0.01	0.12	< 0.05	0.02
Iron (Fe)	mg/l	.6	0.198	9.76 N	8.5	15	0.07	62	2.9	4.6
Lead (Pb)	mg/l	.05	0.0038	0.011	0.01	0.013	< 0.005	0.065	< 0.025	0.011
Magnesium (Mg)	mg/l	35	14.5 E	14.6	20	14	10	33	16	19
Manganese (Mn)	mg/l	.6	0.0397	0.0898	0.21	0.33	0.23	1.3	0.51	0.11
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0002	< 0.0003	< 0.0003	< 0.001	< 0.0003	0.00066
Nickel (Ni)	mg/l	.2	0.0082 B	0.0496	0.05	0.08	0.01	0.31	< 0.05	0.03
Potassium (K)	mg/l		4.45 BE	4.21	11	9.3	4.2	21	5.1	9.6
Selenium (Se)	mg/l	.02	< 0.0039 U*	< 0.005 UN	< 0.004	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01
Silver (Ag)	mg/l	.1	0.0019 B	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Sodium (Na)	mg/l		14.5 E	13	22	13	14	18	17	23
Thallium (Tl)	mg/l	.0005	< 0.0029 U	< 0.01 U	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025	< 0.005
Vanadium (V)	mg/l		< 0.002 U	0.0153 N	0.016	0.032	< 0.005	0.12	< 0.025	0.011
Zinc (Zn)	mg/l	5	0.018 B	0.0374 B	0.04	0.05	0.02	0.22	< 0.05	0.03

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 109					
			DISSOLVED Mar-08	Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09
Cyanide, Total	mg/l	.4		< 0.02		< 0.02	—	< 0.02
Aluminum (Al)	mg/l	2	< 0.01	0.18	< 0.05	0.03	< 0.01	0.12 < 0.05
Antimony (Sb)	mg/l	.006	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	< 0.025
Arsenic (As)	mg/l	.05	0.009	< 0.025	< 0.025	0.009	< 0.005	< 0.025
Barium (Ba)	mg/l	2	0.13	0.08	0.075	0.09	0.09	0.085 0.085
Beryllium (Be)	mg/l	.003	< 0.001	< 0.005	< 0.005	< 0.001	< 0.001	< 0.005 < 0.005
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	< 0.025 < 0.025
Calcium (Ca)	mg/l	150	90	88	130	120	120	120
Chromium (Cr)	mg/l	.1	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	< 0.025 < 0.025
Cobalt (Co)	mg/l		< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	< 0.025 < 0.025
Copper (Cu)	mg/l	1	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.05 < 0.05
Iron (Fe)	mg/l	.6	0.02	0.58	0.09	0.04	0.06	3.1 2.8
Lead (Pb)	mg/l	.05	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	< 0.025 < 0.025
Magnesium (Mg)	mg/l	35	19	12	12	16	16	18 17
Manganese (Mn)	mg/l	.6	0.05	< 0.05	< 0.05	< 0.01	< 0.01	0.33 0.4
Mercury (Hg)	mg/l	.0014	0.00029	< 0.001	< 0.001	< 0.0003	< 0.0003	< 0.0003 < 0.0003
Nickel (Ni)	mg/l	.2	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.05 < 0.05
Potassium (K)	mg/l		8.7	< 5	< 5	5.9	6	6.9 5.9
Selenium (Se)	mg/l	.02	< 0.01	< 0.05	< 0.05	< 0.01	0.01	< 0.05 < 0.05
Silver (Ag)	mg/l	.1	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	< 0.025 < 0.025
Sodium (Na)	mg/l		25	23	21	14	14	38 20
Thallium (Tl)	mg/l	.0005	< 0.005	< 0.05	< 0.05	< 0.005	< 0.005	< 0.025 < 0.025
Vanadium (V)	mg/l		< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	< 0.025 < 0.025
Zinc (Zn)	mg/l	5	0.01	< 0.05	< 0.05	< 0.01	0.01	< 0.05 < 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 109					
			DISSOLVED Mar-08	Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09
Cyanide, Total	mg/l	.4		< 0.02		< 0.02	—	< 0.02
Aluminum (Al)	mg/l	2	< 0.01	0.18	< 0.05	0.03	< 0.01	0.12
Antimony (Sb)	mg/l	.006	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	< 0.025
Arsenic (As)	mg/l	.05	0.009	< 0.025	< 0.025	0.009	< 0.005	< 0.025
Barium (Ba)	mg/l	2	0.13	0.08	0.075	0.09	0.09	0.085
Beryllium (Be)	mg/l	.003	< 0.001	< 0.005	< 0.005	< 0.001	< 0.001	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	< 0.025
Calcium (Ca)	mg/l		150	90	88	130	120	120
Chromium (Cr)	mg/l	.1	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	< 0.025
Cobalt (Co)	mg/l		< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	< 0.025
Copper (Cu)	mg/l	1	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.05
Iron (Fe)	mg/l	.6	0.02	0.58	0.09	0.04	0.06	3.1
Lead (Pb)	mg/l	.05	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	< 0.025
Magnesium (Mg)	mg/l	35	19	12	12	16	16	18
Manganese (Mn)	mg/l	.6	0.05	< 0.05	< 0.05	< 0.01	< 0.01	0.33
Mercury (Hg)	mg/l	.0014	0.00029	< 0.001	< 0.001	< 0.0003	< 0.0003	< 0.0003
Nickel (Ni)	mg/l	.2	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.05
Potassium (K)	mg/l		8.7	< 5	< 5	5.9	6	6.9
Selenium (Se)	mg/l	.02	< 0.01	< 0.05	< 0.05	< 0.01	0.01	< 0.05
Silver (Ag)	mg/l	.1	< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	< 0.025
Sodium (Na)	mg/l		25	23	21	14	14	38
Thallium (Tl)	mg/l	.0005	< 0.005	< 0.05	< 0.05	< 0.005	< 0.005	< 0.025
Vanadium (V)	mg/l		< 0.005	< 0.025	< 0.025	< 0.005	< 0.005	< 0.025
Zinc (Zn)	mg/l	5	0.01	< 0.05	< 0.05	< 0.01	0.01	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 110					
			Nov-06	Jul-07	DISSOLVED	Jul-07	Feb-08	DISSOLVED
Cyanide, Total	mg/l	.4	< 0.02	< 0.02		< 0.02		< 0.02
Aluminum (Al)	mg/l	2	0.17	0.04	0.04	0.08	< 0.05	0.1
Antimony (Sb)	mg/l	.006	< 0.01	< 0.005	< 0.005	0.07	0.07	< 0.005
Arsenic (As)	mg/l	.05	< 0.05	0.013	0.012	< 0.025	< 0.025	0.006
Barium (Ba)	mg/l	2	0.082	0.062	0.06	0.1	0.11	0.041
Beryllium (Be)	mg/l	.003	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Calcium (Ca)	mg/l		310	310	270	290	310	300
Chromium (Cr)	mg/l	.1	0.13	< 0.005	< 0.005	< 0.025	< 0.025	0.005
Cobalt (Co)	mg/l		< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Copper (Cu)	mg/l	1	0.02	< 0.01	< 0.01	< 0.05	< 0.05	0.04
Iron (Fe)	mg/l	.6	2	4.3	5.3	6.1	3.1	1.4
Lead (Pb)	mg/l	.05	0.018	< 0.005	< 0.005	0.042	< 0.025	0.018
Magnesium (Mg)	mg/l	35	850	880	760	560	620	860
Manganese (Mn)	mg/l	.6	0.06	0.06	0.06	0.14	0.11	0.1
Mercury (Hg)	mg/l	.0014	< 0.0002	< 0.0003	< 0.0003	< 0.001	< 0.001	< 0.0003
Nickel (Ni)	mg/l	.2	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	0.01
Potassium (K)	mg/l		580	510	430	210	230	590
Selenium (Se)	mg/l	.02	< 0.004	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01
Silver (Ag)	mg/l	.1	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Sodium (Na)	mg/l		6500	7300	5900	4700	5300	6700
Thallium (Tl)	mg/l	.0005	< 0.005	< 0.01	< 0.01	< 0.05	< 0.05	< 0.005
Vanadium (V)	mg/l		0.007	0.005	0.005	< 0.025	< 0.025	0.008
Zinc (Zn)	mg/l	5	0.01	0.05	0.04	0.17	0.12	0.2

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 110					
			Nov-06	Jul-07	DISSOLVED Jul-07	Feb-08	DISSOLVED Feb-08	Mar-08
Cyanide, Total	mg/l	.4	< 0.02	< 0.02		< 0.02		< 0.02
Aluminum (Al)	mg/l	2	0.17	0.04	0.04	0.08	< 0.05	0.1
Antimony (Sb)	mg/l	.006	< 0.01	< 0.005	< 0.005	0.07	0.07	< 0.005
Arsenic (As)	mg/l	.05	< 0.05	0.013	0.012	< 0.025	< 0.025	0.006
Barium (Ba)	mg/l	2	0.082	0.062	0.06	0.1	0.11	0.041
Beryllium (Be)	mg/l	.003	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Calcium (Ca)	mg/l	310	310	270	290	310	300	320
Chromium (Cr)	mg/l	.1	0.13	< 0.005	< 0.005	< 0.025	< 0.025	0.005
Cobalt (Co)	mg/l		< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Copper (Cu)	mg/l	1	0.02	< 0.01	< 0.01	< 0.05	< 0.05	0.04
Iron (Fe)	mg/l	.6	2	4.3	5.3	6.1	3.1	1.4
Lead (Pb)	mg/l	.05	0.018	< 0.005	< 0.005	0.042	< 0.025	0.018
Magnesium (Mg)	mg/l	35	850	880	760	560	620	860
Manganese (Mn)	mg/l	.6	0.06	0.06	0.06	0.14	0.11	0.1
Mercury (Hg)	mg/l	.0014	< 0.0002	< 0.0003	< 0.0003	< 0.001	< 0.001	< 0.0003
Nickel (Ni)	mg/l	.2	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	0.01
Potassium (K)	mg/l	580	510	430	210	230	590	650
Selenium (Se)	mg/l	.02	< 0.004	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01
Silver (Ag)	mg/l	.1	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Sodium (Na)	mg/l		6500	7300	5900	4700	5300	6700
Thallium (Tl)	mg/l	.0005	< 0.005	< 0.01	< 0.01	< 0.05	< 0.05	< 0.005
Vanadium (V)	mg/l		0.007	0.005	0.005	< 0.025	< 0.025	0.008
Zinc (Zn)	mg/l	5	0.01	0.05	0.04	0.17	0.12	0.2

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 110				
			Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09
Cyanide, Total	mg/l	.4	< 0.02		< 0.02	---	< 0.02
Aluminum (Al)	mg/l	2	< 0.1	< 0.1	< 0.02	< 0.02	< 0.05
Antimony (Sb)	mg/l	.006	< 0.1	< 0.1	< 0.01	< 0.01	< 0.025
Arsenic (As)	mg/l	.05	< 0.05	< 0.05	< 0.01	0.011	< 0.025
Barium (Ba)	mg/l	2	0.053	0.057	0.038	0.038	0.053
Beryllium (Be)	mg/l	.003	< 0.01	< 0.01	< 0.002	< 0.002	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.025
Calcium (Ca)	mg/l	250	270	320	320	320	310
Chromium (Cr)	mg/l	.1	< 0.05	< 0.05	< 0.01	< 0.01	< 0.025
Cobalt (Co)	mg/l		< 0.05	< 0.05	< 0.01	< 0.01	< 0.025
Copper (Cu)	mg/l	1	0.1	0.1	< 0.02	< 0.02	0.05
Iron (Fe)	mg/l	.6	3.7	3.3	0.48	0.46	6.7
Lead (Pb)	mg/l	.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.025
Magnesium (Mg)	mg/l	35	750	810	870	880	940
Manganese (Mn)	mg/l	.6	< 0.1	< 0.1	0.04	0.05	0.27
Mercury (Hg)	mg/l	.0014	< 0.0003	< 0.0003	< 0.001	< 0.001	< 0.0003
Nickel (Ni)	mg/l	.2	< 0.1	< 0.1	< 0.02	< 0.02	< 0.05
Potassium (K)	mg/l		410	450	460	470	440
Selenium (Se)	mg/l	.02	< 0.1	< 0.1	< 0.02	< 0.02	< 0.05
Silver (Ag)	mg/l	.1	< 0.05	< 0.05	< 0.01	< 0.01	< 0.025
Sodium (Na)	mg/l		6100	6500	8100	8200	7300
Thallium (Tl)	mg/l	.0005	< 0.1	< 0.1	< 0.01	< 0.01	< 0.025
Vanadium (V)	mg/l		< 0.05	< 0.05	< 0.01	< 0.01	< 0.025
Zinc (Zn)	mg/l	5	< 0.1	< 0.1	0.13	0.11	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 110					
			Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09	DISSOLVED Oct-09
Cyanide, Total	mg/l	.4	< 0.02		< 0.02	---	< 0.02	---
Aluminum (Al)	mg/l	2	< 0.1	< 0.1	< 0.02	< 0.02	< 0.05	< 0.05
Antimony (Sb)	mg/l	.006	< 0.1	< 0.1	< 0.01	< 0.01	< 0.025	0.03
Arsenic (As)	mg/l	.05	< 0.05	< 0.05	< 0.01	0.011	< 0.025	< 0.025
Barium (Ba)	mg/l	2	0.053	0.057	0.038	0.038	0.053	0.052
Beryllium (Be)	mg/l	.003	< 0.01	< 0.01	< 0.002	< 0.002	< 0.005	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.025	< 0.025
Calcium (Ca)	mg/l	250	270		320	320	320	310
Chromium (Cr)	mg/l	.1	< 0.05	< 0.05	< 0.01	< 0.01	< 0.025	< 0.025
Cobalt (Co)	mg/l		< 0.05	< 0.05	< 0.01	< 0.01	< 0.025	< 0.025
Copper (Cu)	mg/l	1	0.1	0.1	< 0.02	< 0.02	0.05	0.05
Iron (Fe)	mg/l	.6	3.7	3.3	0.48	0.46	6.7	6.6
Lead (Pb)	mg/l	.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.025	< 0.025
Magnesium (Mg)	mg/l	35	750	810	870	880	940	940
Manganese (Mn)	mg/l	.6	< 0.1	< 0.1	0.04	0.05	0.27	0.27
Mercury (Hg)	mg/l	.0014	< 0.0003	< 0.0003	< 0.001	< 0.001	< 0.0003	< 0.0003
Nickel (Ni)	mg/l	.2	< 0.1	< 0.1	< 0.02	< 0.02	< 0.05	< 0.05
Potassium (K)	mg/l		410	450	460	470	440	470
Selenium (Se)	mg/l	.02	< 0.1	< 0.1	< 0.02	< 0.02	< 0.05	< 0.05
Silver (Ag)	mg/l	.1	< 0.05	< 0.05	< 0.01	< 0.01	< 0.025	< 0.025
Sodium (Na)	mg/l		6100	6500	8100	8200	7300	7500
Thallium (Tl)	mg/l	.0005	< 0.1	< 0.1	< 0.01	< 0.01	< 0.025	< 0.025
Vanadium (V)	mg/l		< 0.05	< 0.05	< 0.01	< 0.01	< 0.025	< 0.025
Zinc (Zn)	mg/l	5	< 0.1	< 0.1	0.13	0.11	< 0.05	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 113							
			Feb-06	May-06	Nov-06	Jul-07	DISSOLVED Jul-07	Dec-07	DISSOLVED Dec-07	Mar-08
Cyanide, Total	mg/l	.4	< 0.01 UN	< 0.001 U	< 0.02	< 0.02		< 0.02		< 0.02
Aluminum (Al)	mg/l	2	0.0229 B	0.832	0.2	16	< 0.01	0.12	< 0.05	0.01
Antimony (Sb)	mg/l	.006	< 0.0025 U	< 0.0054 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Arsenic (As)	mg/l	.05	< 0.0031 UN	0.007 B	< 0.005	0.01	0.005	< 0.025	< 0.025	0.011
Barium (Ba)	mg/l	2	0.0572 B	0.11 N	0.12	0.23	0.12	0.098	0.096	0.1
Beryllium (Be)	mg/l	.003	< 0.0004 U	< 0.00054 UN	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001
Cadmium (Cd)	mg/l	.01	< 0.0008 U	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Calcium (Ca)	mg/l	75.4	99.7	110	92	92	75	77	98	
Chromium (Cr)	mg/l	.1	0.0033 B	0.0055 BN	< 0.005	0.061	< 0.005	< 0.025	< 0.025	< 0.005
Cobalt (Co)	mg/l		0.0069 B	0.0103	0.008	0.035	0.011	< 0.025	< 0.025	0.01
Copper (Cu)	mg/l	1	< 0.0012 U	< 0.0043 U	< 0.01	0.04	< 0.01	< 0.05	< 0.05	< 0.01
Iron (Fe)	mg/l	.6	8.76	19.1 N	12	28	7.1	4.9	4.4	7.3
Lead (Pb)	mg/l	.05	0.0022 B	0.0046 B	< 0.005	0.028	< 0.005	< 0.025	< 0.025	< 0.005
Magnesium (Mg)	mg/l	35	20.5 E	28.4	30	29	24	21	21	26
Manganese (Mn)	mg/l	.6	1.43	1.94	2	1.6	1.4	1.1	1.1	1.4
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0002	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.001
Nickel (Ni)	mg/l	.2	0.0393 B	0.0563	0.05	0.23	0.06	0.06	0.06	0.04
Potassium (K)	mg/l	40	47.4	71	46	44	45	47	53	
Selenium (Se)	mg/l	.02	< 0.0039 U*	< 0.005 UN	< 0.004	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01
Silver (Ag)	mg/l	.1	0.0026 B	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Sodium (Na)	mg/l		145 E	109	140	140	150	170	170	150
Thallium (Tl)	mg/l	.0005	< 0.0029 U	< 0.01 U	< 0.005	< 0.01	< 0.005	< 0.025	< 0.025	0.0067
Vanadium (V)	mg/l		< 0.002 U	0.0049 BN	< 0.005	0.036	< 0.005	< 0.025	< 0.025	< 0.005
Zinc (Zn)	mg/l	5	0.01 B	0.0176 B	0.02	0.08	0.01	< 0.05	< 0.05	0.01

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 113							
			Feb-06	May-06	Nov-06	Jul-07	DISSOLVED Jul-07	Dec-07	DISSOLVED Dec-07	Mar-08
Cyanide, Total	mg/l	.4	< 0.01 UN	< 0.001 U	< 0.02	< 0.02		< 0.02		< 0.02
Aluminum (Al)	mg/l	2	0.0229 B	0.832	0.2	16	< 0.01	0.12	< 0.05	0.01
Antimony (Sb)	mg/l	.006	< 0.0025 U	< 0.0054 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Arsenic (As)	mg/l	.05	< 0.0031 UN	0.007 B	< 0.005	0.01	0.005	< 0.025	< 0.025	0.011
Barium (Ba)	mg/l	2	0.0572 B	0.11 N	0.12	0.23	0.12	0.098	0.096	0.1
Beryllium (Be)	mg/l	.003	< 0.0004 U	< 0.00054 UN	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001
Cadmium (Cd)	mg/l	.01	< 0.0008 U	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Calcium (Ca)	mg/l		75.4	99.7	110	92	92	75	77	98
Chromium (Cr)	mg/l	.1	0.0033 B	0.0055 BN	< 0.005	0.061	< 0.005	< 0.025	< 0.025	< 0.005
Cobalt (Co)	mg/l		0.0069 B	0.0103	0.008	0.035	0.011	< 0.025	< 0.025	0.01
Copper (Cu)	mg/l	1	< 0.0012 U	< 0.0043 U	< 0.01	0.04	< 0.01	< 0.05	< 0.05	< 0.01
Iron (Fe)	mg/l	.6	8.76	19.1 N	12	28	7.1	4.9	4.4	7.3
Lead (Pb)	mg/l	.05	0.0022 B	0.0046 B	< 0.005	0.028	< 0.005	< 0.025	< 0.025	< 0.005
Magnesium (Mg)	mg/l	35	20.5 E	28.4	30	29	24	21	21	26
Manganese (Mn)	mg/l	.6	1.43	1.94	2	1.6	1.4	1.1	1.1	1.4
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0002	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.001
Nickel (Ni)	mg/l	.2	0.0393 B	0.0563	0.05	0.23	0.06	0.06	0.06	0.04
Potassium (K)	mg/l		40	47.4	71	46	44	45	47	53
Selenium (Se)	mg/l	.02	< 0.0039 U*	< 0.005 UN	< 0.004	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01
Silver (Ag)	mg/l	.1	0.0026 B	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Sodium (Na)	mg/l		145 E	109	140	140	150	170	170	150
Thallium (Tl)	mg/l	.0005	< 0.0029 U	< 0.01 U	< 0.005	< 0.01	< 0.005	< 0.025	< 0.025	0.0067
Vanadium (V)	mg/l		< 0.002 U	0.0049 BN	< 0.005	0.036	< 0.005	< 0.025	< 0.025	< 0.005
Zinc (Zn)	mg/l	5	0.01 B	0.0176 B	0.02	0.08	0.01	< 0.05	< 0.05	0.01

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 113					
			DISSOLVED Mar-08	Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09
Cyanide, Total	mg/l	.4		< 0.02		< 0.02	—	< 0.02
Aluminum (Al)	mg/l	2	< 0.01	0.03	< 0.01	< 0.01	< 0.01	< 0.05
Antimony (Sb)	mg/l	.006	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	< 0.025
Arsenic (As)	mg/l	.05	0.011	0.006	< 0.005	0.014	< 0.005	< 0.025
Barium (Ba)	mg/l	2	0.093	0.13	0.14	0.09	0.059	0.092
Beryllium (Be)	mg/l	.003	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025
Calcium (Ca)	mg/l		97	120	130	100	100	110
Chromium (Cr)	mg/l	.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025
Cobalt (Co)	mg/l		0.009	0.008	< 0.005	0.01	0.01	< 0.025
Copper (Cu)	mg/l	1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.05
Iron (Fe)	mg/l	.6	8.1	11	14	6.6	7.8	9.1
Lead (Pb)	mg/l	.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025
Magnesium (Mg)	mg/l	35	26	33	0.6	26	24	27
Manganese (Mn)	mg/l	.6	1.4	1.7	1.9	1.5	1.5	1.4
Mercury (Hg)	mg/l	.0014	< 0.001	< 0.001	< 0.001	< 0.0003	< 0.0003	< 0.001
Nickel (Ni)	mg/l	.2	0.04	0.04	< 0.01	0.05	0.05	0.06
Potassium (K)	mg/l		53	55	62	40	41	53
Selenium (Se)	mg/l	.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05
Silver (Ag)	mg/l	.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025
Sodium (Na)	mg/l		160	160	18	170	170	190
Thallium (Tl)	mg/l	.0005	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	< 0.025
Vanadium (V)	mg/l		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025
Zinc (Zn)	mg/l	5	0.01	0.02	0.02	0.02	0.01	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 113					
			DISSOLVED Mar-08	Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09
Cyanide, Total	mg/l	.4		< 0.02		< 0.02	--	< 0.02
Aluminum (Al)	mg/l	2	< 0.01	0.03	< 0.01	< 0.01	< 0.01	< 0.05
Antimony (Sb)	mg/l	.006	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	< 0.025
Arsenic (As)	mg/l	.05	0.011	0.006	< 0.005	0.014	< 0.005	< 0.025
Barium (Ba)	mg/l	2	0.093	0.13	0.14	0.09	0.059	0.092
Beryllium (Be)	mg/l	.003	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025
Calcium (Ca)	mg/l	97	120	130	100	100	110	110
Chromium (Cr)	mg/l	.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025
Cobalt (Co)	mg/l		0.009	0.008	< 0.005	0.01	0.01	< 0.025
Copper (Cu)	mg/l	1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.05
Iron (Fe)	mg/l	.6	8.1	11	14	6.6	7.8	9.1
Lead (Pb)	mg/l	.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025
Magnesium (Mg)	mg/l	35	26	33	0.6	26	24	27
Manganese (Mn)	mg/l	.6	1.4	1.7	1.9	1.5	1.5	1.4
Mercury (Hg)	mg/l	.0014	< 0.001	< 0.001	< 0.001	< 0.0003	< 0.0003	< 0.001
Nickel (Ni)	mg/l	.2	0.04	0.04	< 0.01	0.05	0.05	0.06
Potassium (K)	mg/l		53	55	62	40	41	53
Selenium (Se)	mg/l	.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05
Silver (Ag)	mg/l	.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025
Sodium (Na)	mg/l		160	160	18	170	170	190
Thallium (Tl)	mg/l	.0005	< 0.005	< 0.01	< 0.01	< 0.005	< 0.005	< 0.025
Vanadium (V)	mg/l		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.025
Zinc (Zn)	mg/l	5	0.01	0.02	0.02	0.02	0.01	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 114							
			Feb-06	May-06	Nov-06	Aug-07	DISSOLVED Aug-07	Dec-07	DISSOLVED Dec-07	Mar-08
Cyanide, Total	mg/l	.4	< 0.01 UN	< 0.001 U	< 0.02	< 0.02		< 0.02		< 0.02
Aluminum (Al)	mg/l	2	0.235	3.42	7.7	0.5	< 0.01	9.2	< 0.01	0.11
Antimony (Sb)	mg/l	.006	< 0.0025 U	< 0.0054 U	< 0.005	< 0.005	< 0.005	0.012	0.009	< 0.005
Arsenic (As)	mg/l	.05	< 0.0031 UN	< 0.0039 U	< 0.005	0.009	0.007	0.01	0.01	0.006
Barium (Ba)	mg/l	2	0.0508 B	0.0702 N	0.11	0.091	0.092	0.15	0.086	0.063
Beryllium (Be)	mg/l	.003	< 0.0004 U	< 0.00054 UN	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium (Cd)	mg/l	.01	< 0.0008 U	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Calcium (Ca)	mg/l	161	130	130	150	160	200	200	200	140
Chromium (Cr)	mg/l	.1	0.0019 B	0.0104 N	0.024	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Cobalt (Co)	mg/l		< 0.0019 U	0.0026 B	0.006	< 0.005	< 0.005	0.007	< 0.005	< 0.005
Copper (Cu)	mg/l	1	0.0113 B	0.0214	0.04	0.01	0.01	0.04	< 0.01	< 0.01
Iron (Fe)	mg/l	.6	0.282	4.38 N	9.6	0.59	0.12	9.8	< 0.01	0.1
Lead (Pb)	mg/l	.05	0.0058	0.012	0.024	< 0.005	< 0.005	0.056	< 0.005	< 0.005
Magnesium (Mg)	mg/l	35	18.8 E	18.6	20	22	23	25	23	16
Manganese (Mn)	mg/l	.6	0.0089 B	0.0471	0.26	0.21	0.23	0.1	< 0.01	0.01
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0002	< 0.0003	< 0.0003	< 0.001	< 0.001	< 0.0003
Nickel (Ni)	mg/l	.2	< 0.0023 U	0.0156	0.03	< 0.01	< 0.01	0.04	< 0.01	< 0.01
Potassium (K)	mg/l		11.3 E	10	15	23	24	17	15	9.9
Selenium (Se)	mg/l	.02	< 0.0039 U*	< 0.005 UN	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Silver (Ag)	mg/l	.1	0.0022 B	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Sodium (Na)	mg/l		26 E	19.3	16	57	58	27	25	20
Thallium (Tl)	mg/l	.0005	0.0036 B	< 0.01 U	< 0.005	< 0.005	< 0.05	< 0.005	< 0.005	< 0.005
Vanadium (V)	mg/l		< 0.002 U	0.0085 N	0.02	< 0.005	< 0.005	0.023	< 0.005	< 0.005
Zinc (Zn)	mg/l	5	0.0089 B	0.0388 B	0.07	0.02	0.01	0.09	< 0.01	0.02

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 114							
			Feb-06	May-06	Nov-06	Aug-07	DISSOLVED Aug-07	Dec-07	DISSOLVED Dec-07	Mar-08
Cyanide, Total	mg/l	.4	< 0.01 UN	< 0.001 U	< 0.02	< 0.02		< 0.02		< 0.02
Aluminum (Al)	mg/l	2	0.235	3.42	7.7	0.5	< 0.01	9.2	< 0.01	0.11
Antimony (Sb)	mg/l	.006	< 0.0025 U	< 0.0054 U	< 0.005	< 0.005	< 0.005	0.012	0.009	< 0.005
Arsenic (As)	mg/l	.05	< 0.0031 UN	< 0.0039 U	< 0.005	0.009	0.007	0.01	0.01	0.006
Barium (Ba)	mg/l	2	0.0508 B	0.0702 N	0.11	0.091	0.092	0.15	0.086	0.063
Beryllium (Be)	mg/l	.003	< 0.0004 U	< 0.00054 UN	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium (Cd)	mg/l	.01	< 0.0008 U	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Calcium (Ca)	mg/l		161	130	130	150	160	200	200	140
Chromium (Cr)	mg/l	.1	0.0019 B	0.0104 N	0.024	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Cobalt (Co)	mg/l		< 0.0019 U	0.0026 B	0.006	< 0.005	< 0.005	0.007	< 0.005	< 0.005
Copper (Cu)	mg/l	1	0.0113 B	0.0214	0.04	0.01	0.01	0.04	< 0.01	< 0.01
Iron (Fe)	mg/l	.6	0.282	4.38 N	9.6	0.59	0.12	9.8	< 0.01	0.1
Lead (Pb)	mg/l	.05	0.0058	0.012	0.024	< 0.005	< 0.005	0.056	< 0.005	< 0.005
Magnesium (Mg)	mg/l	35	18.8 E	18.6	20	22	23	25	23	16
Manganese (Mn)	mg/l	.6	0.0089 B	0.0471	0.26	0.21	0.23	0.1	< 0.01	0.01
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0002	< 0.0003	< 0.0003	< 0.001	< 0.001	< 0.0003
Nickel (Ni)	mg/l	.2	< 0.0023 U	0.0156	0.03	< 0.01	< 0.01	0.04	< 0.01	< 0.01
Potassium (K)	mg/l		11.3 E	10	15	23	24	17	15	9.9
Selenium (Se)	mg/l	.02	< 0.0039 U*	< 0.005 UN	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Silver (Ag)	mg/l	.1	0.0022 B	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Sodium (Na)	mg/l		26 E	19.3	16	57	58	27	25	20
Thallium (Tl)	mg/l	.0005	0.0036 B	< 0.01 U	< 0.005	< 0.005	< 0.05	< 0.005	< 0.005	< 0.005
Vanadium (V)	mg/l		< 0.002 U	0.0085 N	0.02	< 0.005	< 0.005	0.023	< 0.005	< 0.005
Zinc (Zn)	mg/l	5	0.0089 B	0.0388 B	0.07	0.02	0.01	0.09	< 0.01	0.02

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 114					
			DISSOLVED Mar-08	Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09
Cyanide, Total	mg/l	.4		< 0.02		< 0.02	--	< 0.02
Aluminum (Al)	mg/l	2	< 0.01	< 0.05	< 0.05	< 0.02	< 0.02	2.6
Antimony (Sb)	mg/l	.006	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Arsenic (As)	mg/l	.05	< 0.005	< 0.025	< 0.025	0.012	< 0.01	< 0.025
Barium (Ba)	mg/l	2	0.064	0.059	0.06	0.066	0.061	0.12
Beryllium (Be)	mg/l	.003	< 0.001	< 0.005	< 0.005	< 0.002	< 0.002	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Calcium (Ca)	mg/l		150	110	110	150	140	160
Chromium (Cr)	mg/l	.1	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Cobalt (Co)	mg/l		< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Copper (Cu)	mg/l	1	< 0.01	< 0.05	< 0.05	< 0.02	< 0.02	< 0.05
Iron (Fe)	mg/l	.6	< 0.01	0.08	< 0.05	0.02	0.07	4
Lead (Pb)	mg/l	.05	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Magnesium (Mg)	mg/l	35	17	15	15	17	17	22
Manganese (Mn)	mg/l	.6	0.01	< 0.05	< 0.05	0.05	0.04	0.4
Mercury (Hg)	mg/l	.0014	< 0.0003	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0003
Nickel (Ni)	mg/l	.2	< 0.01	< 0.05	< 0.05	< 0.02	< 0.02	< 0.05
Potassium (K)	mg/l		8.9	12	12	13	13	25
Selenium (Se)	mg/l	.02	< 0.01	< 0.05	< 0.05	< 0.02	< 0.02	< 0.05
Silver (Ag)	mg/l	.1	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Sodium (Na)	mg/l		20	21	20	21	21	34
Thallium (Tl)	mg/l	.0005	< 0.005	< 0.05	< 0.05	< 0.01	< 0.01	< 0.025
Vanadium (V)	mg/l		< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Zinc (Zn)	mg/l	5	0.01	< 0.05	< 0.05	< 0.02	< 0.02	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 114					
			DISSOLVED Mar-08	Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09
Cyanide, Total	mg/l	.4		< 0.02		< 0.02	—	< 0.02
Aluminum (Al)	mg/l	2	< 0.01	< 0.05	< 0.05	< 0.02	< 0.02	2.6
Antimony (Sb)	mg/l	.006	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Arsenic (As)	mg/l	.05	< 0.005	< 0.025	< 0.025	0.012	< 0.01	< 0.025
Barium (Ba)	mg/l	2	0.064	0.059	0.06	0.066	0.061	0.12
Beryllium (Be)	mg/l	.003	< 0.001	< 0.005	< 0.005	< 0.002	< 0.002	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Calcium (Ca)	mg/l		150	110	110	150	140	160
Chromium (Cr)	mg/l	.1	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Cobalt (Co)	mg/l		< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Copper (Cu)	mg/l	1	< 0.01	< 0.05	< 0.05	< 0.02	< 0.02	< 0.05
Iron (Fe)	mg/l	.6	< 0.01	0.08	< 0.05	0.02	0.07	4
Lead (Pb)	mg/l	.05	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Magnesium (Mg)	mg/l	35	17	15	15	17	17	22
Manganese (Mn)	mg/l	.6	0.01	< 0.05	< 0.05	0.05	0.04	0.4
Mercury (Hg)	mg/l	.0014	< 0.0003	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0003
Nickel (Ni)	mg/l	.2	< 0.01	< 0.05	< 0.05	< 0.02	< 0.02	< 0.05
Potassium (K)	mg/l		8.9	12	12	13	13	25
Selenium (Se)	mg/l	.02	< 0.01	< 0.05	< 0.05	< 0.02	< 0.02	< 0.05
Silver (Ag)	mg/l	.1	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Sodium (Na)	mg/l		20	21	20	21	21	34
Thallium (Tl)	mg/l	.0005	< 0.005	< 0.05	< 0.05	< 0.01	< 0.01	< 0.025
Vanadium (V)	mg/l		< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Zinc (Zn)	mg/l	5	0.01	< 0.05	< 0.05	< 0.02	< 0.02	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 119							
			Feb-06	May-06	Nov-06	Jul-07	DISSOLVED	Jul-07	Feb-08	DISSOLVED
Cyanide, Total	mg/l	.4	< 0.01 UN	< 0.001 U	< 0.02	< 0.02		< 0.02		< 0.02
Aluminum (Al)	mg/l	2	< 0.0208 U	< 0.092 U	0.05	0.04	0.02	0.49	< 0.1	0.04
Antimony (Sb)	mg/l	.006	< 0.005 U	< 0.0054 U	< 0.01	0.006	0.005	< 0.02	< 0.2	< 0.005
Arsenic (As)	mg/l	.05	0.0077 BN	< 0.0039 U	< 0.05	0.009	0.015	0.015	< 0.05	< 0.005
Barium (Ba)	mg/l	2	0.0779 B	0.0531 N	0.088	0.066	0.07	0.17	0.086	0.065
Beryllium (Be)	mg/l	.003	< 0.0008 U	< 0.00054 UN	< 0.001	< 0.001	< 0.001	< 0.001	< 0.01	< 0.001
Cadmium (Cd)	mg/l	.01	< 0.0016 U	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005
Calcium (Ca)	mg/l		342	228	350	380	340	320	330	340
Chromium (Cr)	mg/l	.1	0.008 B	0.0022 BN	< 0.005	< 0.005	< 0.005	0.008	< 0.05	< 0.005
Cobalt (Co)	mg/l		< 0.0038 U	< 0.0018 U	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005
Copper (Cu)	mg/l	1	0.0114 B	< 0.0043 U	0.06	< 0.01	< 0.01	0.02	< 0.1	< 0.01
Iron (Fe)	mg/l	.6	3.26	2.12 N	2.1	2.3	2.1	6.2	2.7	1.9
Lead (Pb)	mg/l	.05	0.0146	< 0.003 U	< 0.005	< 0.005	< 0.005	0.005	< 0.05	< 0.005
Magnesium (Mg)	mg/l	35	794 E	632	880	1000	870	800	810	910
Manganese (Mn)	mg/l	.6	0.539	0.404	0.5	0.32	0.34	0.65	0.64	0.41
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0002	< 0.0003	< 0.0003	< 0.0003	0.00028	< 0.0003
Nickel (Ni)	mg/l	.2	< 0.0046 U	< 0.0019 U	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 0.01
Potassium (K)	mg/l		676 E	340	340	580	500	380	58	590
Selenium (Se)	mg/l	.02	< 0.0078 U*	< 0.005 UN	< 0.004	< 0.01	< 0.01	< 0.01	< 0.2	< 0.01
Silver (Ag)	mg/l	.1	0.0027 B	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005
Sodium (Na)	mg/l		10500 E	219	2500	8500	7200	7400	850	6900
Thallium (Tl)	mg/l	.0005	0.0058 B	0.0101 B	< 0.005	< 0.01	< 0.01	< 0.02	< 0.2	< 0.005
Vanadium (V)	mg/l		0.0085 B	0.0064 N	< 0.005	< 0.005	< 0.005	0.008	< 0.05	< 0.005
Zinc (Zn)	mg/l	5	< 0.005 U	0.0165 B	0.04	0.02	0.03	0.1	< 0.1	0.04

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 119							
			Feb-06	May-06	Nov-06	Jul-07	DISSOLVED Jul-07	Feb-08	DISSOLVED Feb-08	Mar-08
Cyanide, Total	mg/l	.4	< 0.01 UN	< 0.001 U	< 0.02	< 0.02		< 0.02		< 0.02
Aluminum (Al)	mg/l	2	< 0.0208 U	< 0.092 U	0.05	0.04	0.02	0.49	< 0.1	0.04
Antimony (Sb)	mg/l	.006	< 0.005 U	< 0.0054 U	< 0.01	0.006	0.005	< 0.02	< 0.2	< 0.005
Arsenic (As)	mg/l	.05	0.0077 BN	< 0.0039 U	< 0.05	0.009	0.015	0.015	< 0.05	< 0.005
Barium (Ba)	mg/l	2	0.0779 B	0.0531 N	0.088	0.066	0.07	0.17	0.086	0.065
Beryllium (Be)	mg/l	.003	< 0.0008 U	< 0.00054 UN	< 0.001	< 0.001	< 0.001	< 0.001	< 0.01	< 0.001
Cadmium (Cd)	mg/l	.01	< 0.0016 U	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005
Calcium (Ca)	mg/l		342	228	350	380	340	320	330	340
Chromium (Cr)	mg/l	.1	0.008 B	0.0022 BN	< 0.005	< 0.005	< 0.005	0.008	< 0.05	< 0.005
Cobalt (Co)	mg/l		< 0.0038 U	< 0.0018 U	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005
Copper (Cu)	mg/l	1	0.0114 B	< 0.0043 U	0.06	< 0.01	< 0.01	0.02	< 0.1	< 0.01
Iron (Fe)	mg/l	.6	3.26	2.12 N	2.1	2.3	2.1	6.2	2.7	1.9
Lead (Pb)	mg/l	.05	0.0146	< 0.003 U	< 0.005	< 0.005	< 0.005	0.005	< 0.05	< 0.005
Magnesium (Mg)	mg/l	35	794 E	632	880	1000	870	800	810	910
Manganese (Mn)	mg/l	.6	0.539	0.404	0.5	0.32	0.34	0.65	0.64	0.41
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0002	< 0.0003	< 0.0003	< 0.0003	0.00028	< 0.0003
Nickel (Ni)	mg/l	.2	< 0.0046 U	< 0.0019 U	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 0.01
Potassium (K)	mg/l		676 E	340	340	580	500	380	58	590
Selenium (Se)	mg/l	.02	< 0.0078 U*	< 0.005 UN	< 0.004	< 0.01	< 0.01	< 0.01	< 0.2	< 0.01
Silver (Ag)	mg/l	.1	0.0027 B	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005
Sodium (Na)	mg/l		10500 E	219	2500	8500	7200	7400	850	6900
Thallium (Tl)	mg/l	.0005	0.0058 B	0.0101 B	< 0.005	< 0.01	< 0.01	< 0.02	< 0.2	< 0.005
Vanadium (V)	mg/l		0.0085 B	0.0064 N	< 0.005	< 0.005	< 0.005	0.008	< 0.05	< 0.005
Zinc (Zn)	mg/l	5	< 0.005 U	0.0165 B	0.04	0.02	0.03	0.1	< 0.1	0.04

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 119								
			DISSOLVED	Mar-08	Sep-08	DISSOLVED	Sep-08	Apr-09	DISSOLVED	Apr-09	Oct-09
Cyanide, Total	mg/l	.4		< 0.02			< 0.02	--	< 0.02	--	
Aluminum (Al)	mg/l	2	0.01	0.06	< 0.05		0.02	< 0.02	< 0.05	< 0.05	
Antimony (Sb)	mg/l	.006	< 0.005	< 0.025	< 0.025		< 0.01	< 0.01	0.027	0.033	
Arsenic (As)	mg/l	.05	0.006	< 0.025	< 0.025		0.032	0.018	< 0.025	< 0.025	
Barium (Ba)	mg/l	2	0.065	0.078	0.073		0.073	0.069	0.071	0.072	
Beryllium (Be)	mg/l	.003	< 0.001	< 0.005	< 0.005		< 0.002	< 0.002	< 0.005	< 0.005	
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.025	< 0.025		< 0.01	< 0.01	< 0.025	< 0.025	
Calcium (Ca)	mg/l		330	300	310		350	340	340	350	
Chromium (Cr)	mg/l	.1	< 0.005	< 0.025	< 0.025		< 0.01	< 0.01	< 0.025	< 0.025	
Cobalt (Co)	mg/l		< 0.005	< 0.025	< 0.025		< 0.01	< 0.01	< 0.025	< 0.025	
Copper (Cu)	mg/l	1	< 0.01	0.07	0.08		< 0.02	< 0.02	< 0.05	< 0.05	
Iron (Fe)	mg/l	.6	0.89	2.3	1.7		1.9	0.67	3.1	2.9	
Lead (Pb)	mg/l	.05	< 0.005	< 0.025	< 0.025		< 0.01	< 0.01	< 0.025	< 0.025	
Magnesium (Mg)	mg/l	35	870	780	810		920	890	900	900	
Manganese (Mn)	mg/l	.6	0.46	0.36	0.36		0.34	0.32	0.52	0.5	
Mercury (Hg)	mg/l	.0014	< 0.0003	< 0.001	< 0.001		< 0.0003	< 0.0003	< 0.001	< 0.001	
Nickel (Ni)	mg/l	.2	< 0.01	< 0.05	< 0.05		< 0.02	< 0.02	< 0.05	< 0.05	
Potassium (K)	mg/l		550	470	470		430	440	460	470	
Selenium (Se)	mg/l	.02	< 0.01	< 0.05	< 0.05		< 0.02	< 0.02	< 0.05	< 0.05	
Silver (Ag)	mg/l	.1	< 0.005	< 0.025	< 0.025		< 0.01	< 0.01	< 0.025	< 0.025	
Sodium (Na)	mg/l		6600	6600	6600		8000	8000	7200	7400	
Thallium (Tl)	mg/l	.0005	< 0.005	< 0.05	< 0.05		< 0.01	< 0.01	< 0.025	< 0.025	
Vanadium (V)	mg/l		< 0.005	< 0.025	< 0.025		< 0.01	< 0.01	< 0.025	< 0.025	
Zinc (Zn)	mg/l	5	0.03	0.08	0.07		0.06	0.05	0.08	0.06	

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 119					
			DISSOLVED Mar-08	Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09
Cyanide, Total	mg/l	.4		< 0.02		< 0.02	--	< 0.02
Aluminum (Al)	mg/l	2	0.01	0.06	< 0.05	0.02	< 0.02	< 0.05
Antimony (Sb)	mg/l	.006	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	0.027
Arsenic (As)	mg/l	.05	0.006	< 0.025	< 0.025	0.032	0.018	< 0.025
Barium (Ba)	mg/l	2	0.065	0.078	0.073	0.073	0.069	0.071
Beryllium (Be)	mg/l	.003	< 0.001	< 0.005	< 0.005	< 0.002	< 0.002	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Calcium (Ca)	mg/l		330	300	310	350	340	350
Chromium (Cr)	mg/l	.1	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Cobalt (Co)	mg/l		< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Copper (Cu)	mg/l	1	< 0.01	0.07	0.08	< 0.02	< 0.02	< 0.05
Iron (Fe)	mg/l	.6	0.89	2.3	1.7	1.9	0.67	3.1
Lead (Pb)	mg/l	.05	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Magnesium (Mg)	mg/l	35	870	780	810	920	890	900
Manganese (Mn)	mg/l	.6	0.46	0.36	0.36	0.34	0.32	0.52
Mercury (Hg)	mg/l	.0014	< 0.0003	< 0.001	< 0.001	< 0.0003	< 0.0003	< 0.001
Nickel (Ni)	mg/l	.2	< 0.01	< 0.05	< 0.05	< 0.02	< 0.02	< 0.05
Potassium (K)	mg/l		550	470	470	430	440	460
Selenium (Se)	mg/l	.02	< 0.01	< 0.05	< 0.05	< 0.02	< 0.02	< 0.05
Silver (Ag)	mg/l	.1	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Sodium (Na)	mg/l		6600	6600	6600	8000	8000	7200
Thallium (Tl)	mg/l	.0005	< 0.005	< 0.05	< 0.05	< 0.01	< 0.01	< 0.025
Vanadium (V)	mg/l		< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Zinc (Zn)	mg/l	5	0.03	0.08	0.07	0.06	0.05	0.08

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 120							
			Feb-06	May-06	Nov-06	Jul-07	Jul-07	Dec-07	Dec-07	Sep-08
Cyanide, Total	mg/l	.4	< 0.01 UN	< 0.001 U	< 0.02	< 0.02		< 0.02		
Aluminum (Al)	mg/l	2	< 0.0208 U	< 0.092 U	0.04	0.05	0.02	< 0.05	< 0.05	0.06
Antimony (Sb)	mg/l	.006	< 0.005 U	< 0.0054 U	< 0.005	0.007	0.006	0.029	0.034	< 0.025
Arsenic (As)	mg/l	.05	0.0119 BN	0.006 B	< 0.1	0.014	0.017	0.045	0.033	< 0.025
Barium (Ba)	mg/l	2	0.106 B	0.0804 N	0.12	0.12	0.11	0.12	0.12	0.1
Beryllium (Be)	mg/l	.003	< 0.0008 U	< 0.00054 UN	< 0.001	0.001	< 0.001	< 0.005	< 0.005	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.0016 U	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Calcium (Ca)	mg/l		632	399	600	600	580	570	570	510
Chromium (Cr)	mg/l	.1	0.0031 B	< 0.0013 UN	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Cobalt (Co)	mg/l		< 0.0038 U	< 0.0018 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Copper (Cu)	mg/l	1	< 0.0024 U	< 0.0043 U	< 0.2	< 0.01	< 0.01	< 0.05	< 0.05	0.07
Iron (Fe)	mg/l	.6	1.76	1.3 N	2.4	3.5	2.1	3	2.9	1.3
Lead (Pb)	mg/l	.05	0.0269	< 0.003 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Magnesium (Mg)	mg/l	35	634 E	506	60	660	650	630	630	590
Manganese (Mn)	mg/l	.6	1.15	0.853	1.2	0.78	0.77	1	1	0.63
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0002	0.00038	0.00068	< 0.001	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	0.0051 B	0.0042 B	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	< 0.05
Potassium (K)	mg/l		322 E	223	280	220	220	230	240	200
Selenium (Se)	mg/l	.02	< 0.0078 U*	< 0.005 UN	< 0.004	0.005	< 0.004	< 0.05	< 0.05	< 0.05
Silver (Ag)	mg/l	.1	0.0084 B	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Sodium (Na)	mg/l		9230 E	216	6300	5900	5900	7300	7500	6000
Thallium (Tl)	mg/l	.0005	0.0188 B	< 0.01 U	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025	< 0.05
Vanadium (V)	mg/l		< 0.004 U	0.0018 BN	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Zinc (Zn)	mg/l	5	< 0.005 U	< 0.011 U	0.02	0.01	< 0.01	< 0.05	< 0.05	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 120							
			Feb-06	May-06	Nov-06	Jul-07	DISSOLVED	Dec-07	DISSOLVED	DISSOLVED
									Sep-08	
Cyanide, Total	mg/l	.4	< 0.01 UN	< 0.001 U	< 0.02	< 0.02		< 0.02		
Aluminum (Al)	mg/l	2	< 0.0208 U	< 0.092 U	0.04	0.05	0.02	< 0.05	< 0.05	0.06
Antimony (Sb)	mg/l	.006	< 0.005 U	< 0.0054 U	< 0.005	0.007	0.006	0.029	0.034	< 0.025
Arsenic (As)	mg/l	.05	0.0119 BN	0.006 B	< 0.1	0.014	0.017	0.045	0.033	< 0.025
Barium (Ba)	mg/l	2	0.106 B	0.0804 N	0.12	0.12	0.11	0.12	0.12	0.1
Beryllium (Be)	mg/l	.003	< 0.0008 U	< 0.00054 UN	< 0.001	0.001	< 0.001	< 0.005	< 0.005	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.0016 U	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Calcium (Ca)	mg/l		632	399	600	600	580	570	570	510
Chromium (Cr)	mg/l	.1	0.0031 B	< 0.0013 UN	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Cobalt (Co)	mg/l			< 0.0038 U	< 0.0018 U	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Copper (Cu)	mg/l	1	< 0.0024 U	< 0.0043 U	< 0.2	< 0.01	< 0.01	< 0.05	< 0.05	0.07
Iron (Fe)	mg/l	.6	1.76	1.3 N	2.4	3.5	2.1	3	2.9	1.3
Lead (Pb)	mg/l	.05	0.0269	< 0.003 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Magnesium (Mg)	mg/l	35	634 E	506	60	660	650	630	630	590
Manganese (Mn)	mg/l	.6	1.15	0.853	1.2	0.78	0.77	1	1	0.63
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0002	0.00038	0.00068	< 0.001	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	0.0051 B	0.0042 B	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	< 0.05
Potassium (K)	mg/l		322 E	223	280	220	220	230	240	200
Selenium (Se)	mg/l	.02	< 0.0078 U*	< 0.005 UN	< 0.004	0.005	< 0.004	< 0.05	< 0.05	< 0.05
Silver (Ag)	mg/l	.1	0.0084 B	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Sodium (Na)	mg/l		9230 E	216	6300	5900	5900	7300	7500	6000
Thallium (Tl)	mg/l	.0005	0.0188 B	< 0.01 U	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025	< 0.05
Vanadium (V)	mg/l			< 0.004 U	0.0018 BN	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Zinc (Zn)	mg/l	5	< 0.005 U	< 0.011 U	0.02	0.01	< 0.01	< 0.05	< 0.05	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 120							
			Sep-08	DISSOLVED Sep-08	Mar-08	DISSOLVED Mar-08	Apr-09	DISSOLVED Apr-09	Oct-09	DISSOLVED Oct-09
Cyanide, Total	mg/l	.4	< 0.02		< 0.02		< 0.02	---	< 0.02	—
Aluminum (Al)	mg/l	2	< 0.05	< 0.05	0.03	0.02	< 0.02	< 0.02	< 0.05	< 0.05
Antimony (Sb)	mg/l	.006	0.03	< 0.025	< 0.005	< 0.005	0.01	0.01	0.038	0.034
Arsenic (As)	mg/l	.05	< 0.025	< 0.025	0.011	0.015	0.01	0.021	< 0.025	< 0.025
Barium (Ba)	mg/l	2	0.11	0.11	0.11	0.11	0.11	0.11	0.095	0.094
Beryllium (Be)	mg/l	.003	< 0.005	< 0.005	< 0.001	< 0.001	< 0.002	< 0.002	< 0.005	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.025	< 0.025	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Calcium (Ca)	mg/l		570	530	560	550	600	590	590	580
Chromium (Cr)	mg/l	.1	< 0.025	< 0.025	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Cobalt (Co)	mg/l			< 0.025	< 0.025	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Copper (Cu)	mg/l	1	0.07	0.07	< 0.01	< 0.01	< 0.02	< 0.02	< 0.05	< 0.05
Iron (Fe)	mg/l	.6	1.5	1.3	2.2	2.3	1.3	1.3	1.9	1.8
Lead (Pb)	mg/l	.05	< 0.025	< 0.025	< 0.005	0.0056	< 0.01	< 0.01	< 0.025	< 0.025
Magnesium (Mg)	mg/l	35	650	610	660	650	640	640	670	660
Manganese (Mn)	mg/l	.6	0.69	< 0.05	0.95	0.96	0.68	0.68	0.94	0.92
Mercury (Hg)	mg/l	.0014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	< 0.05	< 0.05	< 0.01	< 0.01	< 0.02	< 0.02	< 0.05	< 0.05
Potassium (K)	mg/l		200	160	270	270	400	220	210	200
Selenium (Se)	mg/l	.02	< 0.05	< 0.05	< 0.01	< 0.01	< 0.02	< 0.02	< 0.05	< 0.05
Silver (Ag)	mg/l	.1	< 0.025	< 0.025	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Sodium (Na)	mg/l		6000	5400	6200	6200	7400	7500	6800	6700
Thallium (Tl)	mg/l	.0005	< 0.05	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Vanadium (V)	mg/l			< 0.025	< 0.025	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025
Zinc (Zn)	mg/l	5	< 0.05	< 0.05	0.02	0.02	0.02	0.03	< 0.05	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 120							
			Sep-08	DISSOLVED Sep-08	Mar-08	DISSOLVED Mar-08	Apr-09	DISSOLVED Apr-09	Oct-09	DISSOLVED Oct-09
Cyanide, Total	mg/l	.4	< 0.02		< 0.02		< 0.02	—	< 0.02	—
Aluminum (Al)	mg/l	2	< 0.05	< 0.05	0.03	0.02	< 0.02	< 0.02	< 0.05	< 0.05
Antimony (Sb)	mg/l	.006	0.03	< 0.025	< 0.005	< 0.005	0.01	0.01	0.038	0.034
Arsenic (As)	mg/l	.05	< 0.025	< 0.025	0.011	0.015	0.01	0.021	< 0.025	< 0.025
Barium (Ba)	mg/l	2	0.11	0.11	0.11	0.11	0.11	0.11	0.095	0.094
Beryllium (Be)	mg/l	.003	< 0.005	< 0.005	< 0.001	< 0.001	< 0.002	< 0.002	< 0.005	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.025	< 0.025	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Calcium (Ca)	mg/l	570	530	560	550	600	590	590	580	580
Chromium (Cr)	mg/l	.1	< 0.025	< 0.025	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Cobalt (Co)	mg/l		< 0.025	< 0.025	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Copper (Cu)	mg/l	1	0.07	0.07	< 0.01	< 0.01	< 0.02	< 0.02	< 0.05	< 0.05
Iron (Fe)	mg/l	.6	1.5	1.3	2.2	2.3	1.3	1.3	1.9	1.8
Lead (Pb)	mg/l	.05	< 0.025	< 0.025	< 0.005	0.0056	< 0.01	< 0.01	< 0.025	< 0.025
Magnesium (Mg)	mg/l	35	650	610	660	650	640	640	670	660
Manganese (Mn)	mg/l	.6	0.69	< 0.05	0.95	0.96	0.68	0.68	0.94	0.92
Mercury (Hg)	mg/l	.0014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	< 0.05	< 0.05	< 0.01	< 0.01	< 0.02	< 0.02	< 0.05	< 0.05
Potassium (K)	mg/l	200	160	270	270	400	220	210	200	200
Selenium (Se)	mg/l	.02	< 0.05	< 0.05	< 0.01	< 0.01	< 0.02	< 0.02	< 0.05	< 0.05
Silver (Ag)	mg/l	.1	< 0.025	< 0.025	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Sodium (Na)	mg/l		6000	5400	6200	6200	7400	7500	6800	6700
Thallium (Tl)	mg/l	.0005	< 0.05	< 0.05	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Vanadium (V)	mg/l		< 0.025	< 0.025	< 0.005	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025
Zinc (Zn)	mg/l	5	< 0.05	< 0.05	0.02	0.02	0.02	0.03	< 0.05	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 120B							
			Feb-06	May-06	Nov-06	Jul-07	DISSOLVED Jul-07	Dec-07	DISSOLVED Dec-07	Mar-08
Cyanide, Total	mg/l	.4	< 0.01 UN	< 0.001 U	< 0.02	< 0.02		< 0.02		< 0.02
Aluminum (Al)	mg/l	2	< 0.0208 U	< 0.092 U	0.11	0.04	0.03	< 0.05	< 0.05	0.07
Antimony (Sb)	mg/l	.006	< 0.005 U	< 0.0054 U	< 0.005	0.005	0.006	0.04	0.055	< 0.005
Arsenic (As)	mg/l	.05	< 0.0062 UN	< 0.0039 U	< 0.05	0.014	0.011	0.026	0.029	0.012
Barium (Ba)	mg/l	2	0.312 B	0.233 N	0.33	0.2	0.2	0.2	0.19	0.2
Beryllium (Be)	mg/l	.003	< 0.0008 U	< 0.00054 UN	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001
Cadmium (Cd)	mg/l	.01	< 0.0016 U	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Calcium (Ca)	mg/l		311	214	610	320	320	310	310	290
Chromium (Cr)	mg/l	.1	0.0157 B	0.01 N	0.013	0.006	0.006	< 0.025	< 0.025	0.007
Cobalt (Co)	mg/l		< 0.0038 U	< 0.0018 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Copper (Cu)	mg/l	1	< 0.0024 U	< 0.0043 U	< 0.01	0.05	< 0.01	< 0.05	< 0.05	< 0.01
Iron (Fe)	mg/l	.6	0.0724 B	0.144 BN	2.3	0.42	0.28	2.1	0.16	0.17
Lead (Pb)	mg/l	.05	0.0129	< 0.003 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Magnesium (Mg)	mg/l	35	725 E	593	680	850	860	850	850	810
Manganese (Mn)	mg/l	.6	0.359	0.284	0.3	0.22	0.22	0.11	0.1	0.18
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0002	0.00099	0.00039	< 0.001	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	0.0055 B	0.0022 B	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01
Potassium (K)	mg/l		675 E	361	590	500	500	610	620	580
Selenium (Se)	mg/l	.02	< 0.0078 U*	< 0.005 UN	< 0.004	< 0.004	< 0.004	< 0.05	< 0.05	< 0.01
Silver (Ag)	mg/l	.1	0.0032 B	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Sodium (Na)	mg/l		9970 E	218	6300	6300	6300	8400	8500	6200
Thallium (Tl)	mg/l	.0005	< 0.0058 U	0.0155 B	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025	< 0.005
Vanadium (V)	mg/l		0.0264 B	0.0216 N	0.015	0.016	0.016	< 0.025	< 0.025	0.018
Zinc (Zn)	mg/l	5	< 0.005 U	< 0.011 U	0.03	0.06	0.01	< 0.05	< 0.05	0.02

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 120B							
			Feb-06	May-06	Nov-06	Jul-07	DISSOLVED Jul-07	Dec-07	DISSOLVED Dec-07	Mar-08
Cyanide, Total	mg/l	.4	< 0.01 UN	< 0.001 U	< 0.02	< 0.02		< 0.02		< 0.02
Aluminum (Al)	mg/l	2	< 0.0208 U	< 0.092 U	0.11	0.04	0.03	< 0.05	< 0.05	0.07
Antimony (Sb)	mg/l	.006	< 0.005 U	< 0.0054 U	< 0.005	0.005	0.006	0.04	0.055	< 0.005
Arsenic (As)	mg/l	.05	< 0.0062 UN	< 0.0039 U	< 0.05	0.014	0.011	0.026	0.029	0.012
Barium (Ba)	mg/l	2	0.312 B	0.233 N	0.33	0.2	0.2	0.2	0.19	0.2
Beryllium (Be)	mg/l	.003	< 0.0008 U	< 0.00054 UN	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001
Cadmium (Cd)	mg/l	.01	< 0.0016 U	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Calcium (Ca)	mg/l	311	214	610	320	320	310	310	290	
Chromium (Cr)	mg/l	.1	0.0157 B	0.01 N	0.013	0.006	0.006	< 0.025	< 0.025	0.007
Cobalt (Co)	mg/l		< 0.0038 U	< 0.0018 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Copper (Cu)	mg/l	1	< 0.0024 U	< 0.0043 U	< 0.01	0.05	< 0.01	< 0.05	< 0.05	< 0.01
Iron (Fe)	mg/l	.6	0.0724 B	0.144 BN	2.3	0.42	0.28	2.1	0.16	0.17
Lead (Pb)	mg/l	.05	0.0129	< 0.003 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Magnesium (Mg)	mg/l	35	725 E	593	680	850	860	850	850	810
Manganese (Mn)	mg/l	.6	0.359	0.284	0.3	0.22	0.22	0.11	0.1	0.18
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0002	0.00099	0.00039	< 0.001	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	0.0055 B	0.0022 B	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01
Potassium (K)	mg/l		675 E	361	590	500	500	610	620	580
Selenium (Se)	mg/l	.02	< 0.0078 U*	< 0.005 UN	< 0.004	< 0.004	< 0.004	< 0.05	< 0.05	< 0.01
Silver (Ag)	mg/l	.1	0.0032 B	< 0.0011 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.005
Sodium (Na)	mg/l		9970 E	218	6300	6300	6300	8400	8500	6200
Thallium (Tl)	mg/l	.0005	< 0.0058 U	0.0155 B	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025	< 0.005
Vanadium (V)	mg/l		0.0264 B	0.0216 N	0.015	0.016	0.016	< 0.025	< 0.025	0.018
Zinc (Zn)	mg/l	5	< 0.005 U	< 0.011 U	0.03	0.06	0.01	< 0.05	< 0.05	0.02

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 120B					
			DISSOLVED Mar-08	Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09
Cyanide, Total	mg/l	.4		< 0.02		< 0.02	---	< 0.02
Aluminum (Al)	mg/l	2	0.02	0.06	< 0.05	0.02	< 0.02	< 0.05
Antimony (Sb)	mg/l	.006	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	0.037
Arsenic (As)	mg/l	.05	0.01	< 0.025	< 0.025	0.013	< 0.01	< 0.025
Barium (Ba)	mg/l	2	0.2	0.2	0.2	0.23	0.23	0.2
Beryllium (Be)	mg/l	.003	< 0.001	< 0.005	< 0.005	< 0.002	< 0.002	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Calcium (Ca)	mg/l		290	290	290	330	330	320
Chromium (Cr)	mg/l	.1	0.007	< 0.025	< 0.025	0.011	< 0.01	0.026
Cobalt (Co)	mg/l			< 0.005	< 0.025	< 0.01	< 0.01	< 0.025
Copper (Cu)	mg/l	1	< 0.01	0.07	0.07	< 0.02	< 0.02	< 0.05
Iron (Fe)	mg/l	.6	0.11	0.2	0.08	0.07	0.06	0.25
Lead (Pb)	mg/l	.05	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Magnesium (Mg)	mg/l	35	810	820	820	870	850	870
Manganese (Mn)	mg/l	.6	0.17	0.24	0.23	0.27	0.27	0.32
Mercury (Hg)	mg/l	.0014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	< 0.01	< 0.05	< 0.05	< 0.02	< 0.02	< 0.05
Potassium (K)	mg/l		580	420	480	470	470	460
Selenium (Se)	mg/l	.02	< 0.01	< 0.05	< 0.05	< 0.02	< 0.02	< 0.05
Silver (Ag)	mg/l	.1	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Sodium (Na)	mg/l		6200	6100	6700	8100	8200	7300
Thallium (Tl)	mg/l	.0005	< 0.005	< 0.05	< 0.05	< 0.01	< 0.01	< 0.025
Vanadium (V)	mg/l		0.017	< 0.025	< 0.025	0.016	0.015	< 0.025
Zinc (Zn)	mg/l	5	0.02	< 0.05	< 0.05	0.02	0.03	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 120B					
			DISSOLVED Mar-08	Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09
Cyanide, Total	mg/l	.4		< 0.02		< 0.02	---	< 0.02
Aluminum (Al)	mg/l	2	0.02	0.06	< 0.05	0.02	< 0.02	< 0.05
Antimony (Sb)	mg/l	.006	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	0.037
Arsenic (As)	mg/l	.05	0.01	< 0.025	< 0.025	0.013	< 0.01	< 0.025
Barium (Ba)	mg/l	2	0.2	0.2	0.2	0.23	0.23	0.2
Beryllium (Be)	mg/l	.003	< 0.001	< 0.005	< 0.005	< 0.002	< 0.002	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Calcium (Ca)	mg/l	290	290	290	330	330	320	320
Chromium (Cr)	mg/l	.1	0.007	< 0.025	< 0.025	0.011	< 0.01	0.026
Cobalt (Co)	mg/l		< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Copper (Cu)	mg/l	1	< 0.01	0.07	0.07	< 0.02	< 0.02	< 0.05
Iron (Fe)	mg/l	.6	0.11	0.2	0.08	0.07	0.06	0.25
Lead (Pb)	mg/l	.05	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Magnesium (Mg)	mg/l	35	810	820	820	870	850	870
Manganese (Mn)	mg/l	.6	0.17	0.24	0.23	0.27	0.27	0.32
Mercury (Hg)	mg/l	.0014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	< 0.01	< 0.05	< 0.05	< 0.02	< 0.02	< 0.05
Potassium (K)	mg/l	580	420	480	470	470	460	450
Selenium (Se)	mg/l	.02	< 0.01	< 0.05	< 0.05	< 0.02	< 0.02	< 0.05
Silver (Ag)	mg/l	.1	< 0.005	< 0.025	< 0.025	< 0.01	< 0.01	< 0.025
Sodium (Na)	mg/l		6200	6100	6700	8100	8200	7300
Thallium (Tl)	mg/l	.0005	< 0.005	< 0.05	< 0.05	< 0.01	< 0.01	< 0.025
Vanadium (V)	mg/l		0.017	< 0.025	< 0.025	0.016	0.015	< 0.025
Zinc (Zn)	mg/l	5	0.02	< 0.05	< 0.05	0.02	0.03	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 122							
			Feb-06	May-06	Nov-06	Jul-07	DISSOLVED Jul-07	Dec-07	DISSOLVED Dec-07	Mar-08
Cyanide, Total	mg/l	.4	< 0.01 UN	0.152	< 0.02	< 0.02		< 0.02		< 0.02
Aluminum (Al)	mg/l	2	< 0.104 U	< 0.46 U	0.03	0.08	0.03	< 0.05	< 0.05	< 0.05
Antimony (Sb)	mg/l	.006	0.0269 B	< 0.027 U	< 0.05	0.007	< 0.005	< 0.025	0.028	< 0.025
Arsenic (As)	mg/l	.05	< 0.031 UN	< 0.0195 U	0.014	0.023	0.022	0.035	< 0.025	0.039
Barium (Ba)	mg/l	2	1.22 B	2.05 N	2.4	2.6	2.5	2.4	2.5	2.7
Beryllium (Be)	mg/l	.003	< 0.004 U	< 0.0027 UN	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.008 U	< 0.0055 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Calcium (Ca)	mg/l		36.3 B	49.4	60	58	57	56	58	53
Chromium (Cr)	mg/l	.1	0.0206 B	0.0505 N	0.062	0.067	0.066	0.068	0.07	0.07
Cobalt (Co)	mg/l		0.0631 B	0.0629	0.071	0.073	0.072	0.075	0.075	0.078
Copper (Cu)	mg/l	1	0.023 B	< 0.0215 U	0.03	0.02	0.02	< 0.05	< 0.05	< 0.05
Iron (Fe)	mg/l	.6	0.101 B	14.4 N	16	16	15	74	13	13
Lead (Pb)	mg/l	.05	< 0.019 U	< 0.015 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Magnesium (Mg)	mg/l	35	235 E	233	290	290	280	270	290	280
Manganese (Mn)	mg/l	.6	< 0.021 U	< 0.0345 U	0.02	0.02	0.02	< 0.05	< 0.05	< 0.05
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0002	< 0.0003	< 0.0003	< 0.001	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	0.768	0.732	0.83	0.88	0.09	0.88	0.9	0.85
Potassium (K)	mg/l		242 E	259	380	320	320	320	370	450
Selenium (Se)	mg/l	.02	0.0827 *	< 0.025 UN	< 0.004	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05
Silver (Ag)	mg/l	.1	< 0.011 U	< 0.0055 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Sodium (Na)	mg/l		2460 E	928	3200	2600	2500	2800	2800	3000
Thallium (Tl)	mg/l	.0005	< 0.029 U	< 0.05 U	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025	0.038
Vanadium (V)	mg/l		< 0.02 U	0.0213 BN	0.033	0.036	0.035	0.037	0.035	0.031
Zinc (Zn)	mg/l	5	0.0272 B	< 0.055 U	0.03	0.02	0.02	< 0.05	< 0.05	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 122							
			Feb-06	May-06	Nov-06	Jul-07	DISSOLVED Jul-07	Dec-07	DISSOLVED Dec-07	Mar-08
Cyanide, Total	mg/l	.4	< 0.01 UN	0.152	< 0.02	< 0.02	< 0.02			< 0.02
Aluminum (Al)	mg/l	2	< 0.104 U	< 0.46 U	0.03	0.08	0.03	< 0.05	< 0.05	< 0.05
Antimony (Sb)	mg/l	.006	0.0269 B	< 0.027 U	< 0.05	0.007	< 0.005	< 0.025	0.028	< 0.025
Arsenic (As)	mg/l	.05	< 0.031 UN	< 0.0195 U	0.014	0.023	0.022	0.035	< 0.025	0.039
Barium (Ba)	mg/l	2	1.22 B	2.05 N	2.4	2.6	2.5	2.4	2.5	2.7
Beryllium (Be)	mg/l	.003	< 0.004 U	< 0.0027 UN	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.008 U	< 0.0055 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Calcium (Ca)	mg/l		36.3 B	49.4	60	58	57	56	58	53
Chromium (Cr)	mg/l	.1	0.0206 B	0.0505 N	0.062	0.067	0.066	0.068	0.07	0.07
Cobalt (Co)	mg/l		0.0631 B	0.0629	0.071	0.073	0.072	0.075	0.075	0.078
Copper (Cu)	mg/l	1	0.023 B	< 0.0215 U	0.03	0.02	0.02	< 0.05	< 0.05	< 0.05
Iron (Fe)	mg/l	.6	0.101 B	14.4 N	16	16	15	74	13	13
Lead (Pb)	mg/l	.05	< 0.019 U	< 0.015 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Magnesium (Mg)	mg/l	35	235 E	233	290	290	280	270	290	280
Manganese (Mn)	mg/l	.6	< 0.021 U	< 0.0345 U	0.02	0.02	0.02	< 0.05	< 0.05	< 0.05
Mercury (Hg)	mg/l	.0014	< 0.00016 U	< 0.00007 U	< 0.0002	< 0.0003	< 0.0003	< 0.001	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	0.768	0.732	0.83	0.88	0.09	0.88	0.9	0.85
Potassium (K)	mg/l		242 E	259	380	320	320	320	370	450
Selenium (Se)	mg/l	.02	0.0827 *	< 0.025 UN	< 0.004	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05
Silver (Ag)	mg/l	.1	< 0.011 U	< 0.0055 U	< 0.005	< 0.005	< 0.005	< 0.025	< 0.025	< 0.025
Sodium (Na)	mg/l		2460 E	928	3200	2600	2500	2800	2800	3000
Thallium (Tl)	mg/l	.0005	< 0.029 U	< 0.05 U	< 0.005	< 0.01	< 0.01	< 0.025	< 0.025	0.038
Vanadium (V)	mg/l		< 0.02 U	0.0213 BN	0.033	0.036	0.035	0.037	0.035	0.031
Zinc (Zn)	mg/l	5	0.0272 B	< 0.055 U	0.03	0.02	0.02	< 0.05	< 0.05	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 122					
			DISSOLVED Mar-08	Sep-08	DISSOLVED Sep-08	Apr-09	DISSOLVED Apr-09	Oct-09
Cyanide, Total	mg/l	.4		< 0.02		< 0.02	---	< 0.02
Aluminum (Al)	mg/l	2	< 0.05	0.06	0.03	< 0.05	0.06	< 0.05
Antimony (Sb)	mg/l	.006	< 0.025	< 0.02	< 0.02	< 0.025	< 0.025	< 0.025
Arsenic (As)	mg/l	.05	0.042	0.022	0.031	0.047	0.057	0.028
Barium (Ba)	mg/l	2	2.6	2.4	2.6	2.6	2.8	2
Beryllium (Be)	mg/l	.003	< 0.005	< 0.002	< 0.002	< 0.005	< 0.005	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.025	< 0.01	< 0.01	< 0.025	< 0.025	< 0.025
Calcium (Ca)	mg/l	51	51	52	45	50	61	53
Chromium (Cr)	mg/l	.1	0.062	0.072	0.075	0.067	0.07	0.08
Cobalt (Co)	mg/l		0.074	0.071	0.074	0.065	0.075	0.072
Copper (Cu)	mg/l	1	< 0.05	0.1	0.1	< 0.05	< 0.05	0.05
Iron (Fe)	mg/l	.6	13	13	14	13	12	13
Lead (Pb)	mg/l	.05	< 0.025	< 0.01	< 0.01	< 0.025	< 0.025	< 0.025
Magnesium (Mg)	mg/l	35	270	280	280	240	270	280
Manganese (Mn)	mg/l	.6	< 0.05	0.13	0.04	< 0.05	< 0.05	< 0.05
Mercury (Hg)	mg/l	.0014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	0.83	0.89	0.92	0.85	0.95	0.92
Potassium (K)	mg/l		420	300	310	300	360	290
Selenium (Se)	mg/l	.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05
Silver (Ag)	mg/l	.1	< 0.025	< 0.01	< 0.01	< 0.025	< 0.025	< 0.025
Sodium (Na)	mg/l		2900	2600	2700	2700	3100	2800
Thallium (Tl)	mg/l	.0005	< 0.025	< 0.02	< 0.02	< 0.025	< 0.025	< 0.025
Vanadium (V)	mg/l		0.03	0.032	0.03	0.032	0.035	0.036
Zinc (Zn)	mg/l	5	< 0.05	0.04	30	0.07	< 0.05	< 0.05

Table 5B
Groundwater Monitoring Wells
Metals and Cyanide Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 122					
			DISSOLVED Mar-08	DISSOLVED Sep-08	DISSOLVED Sep-08	DISSOLVED Apr-09	DISSOLVED Apr-09	DISSOLVED Oct-09
Cyanide, Total	mg/l	.4		< 0.02		< 0.02	--	< 0.02
Aluminum (Al)	mg/l	2	< 0.05	0.06	0.03	< 0.05	0.06	< 0.05
Antimony (Sb)	mg/l	.006	< 0.025	< 0.02	< 0.02	< 0.025	< 0.025	< 0.025
Arsenic (As)	mg/l	.05	0.042	0.022	0.031	0.047	0.057	0.028
Barium (Ba)	mg/l	2	2.6	2.4	2.6	2.6	2.8	2
Beryllium (Be)	mg/l	.003	< 0.005	< 0.002	< 0.002	< 0.005	< 0.005	< 0.005
Cadmium (Cd)	mg/l	.01	< 0.025	< 0.01	< 0.01	< 0.025	< 0.025	< 0.025
Calcium (Ca)	mg/l	51	51	52	45	50	61	53
Chromium (Cr)	mg/l	.1	0.062	0.072	0.075	0.067	0.07	0.08
Cobalt (Co)	mg/l		0.074	0.071	0.074	0.065	0.075	0.072
Copper (Cu)	mg/l	1	< 0.05	0.1	0.1	< 0.05	< 0.05	0.05
Iron (Fe)	mg/l	.6	13	13	14	13	12	13
Lead (Pb)	mg/l	.05	< 0.025	< 0.01	< 0.01	< 0.025	< 0.025	< 0.025
Magnesium (Mg)	mg/l	35	270	280	280	240	270	280
Manganese (Mn)	mg/l	.6	< 0.05	0.13	0.04	< 0.05	< 0.05	< 0.05
Mercury (Hg)	mg/l	.0014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Nickel (Ni)	mg/l	.2	0.83	0.89	0.92	0.85	0.95	0.92
Potassium (K)	mg/l		420	300	310	300	360	290
Selenium (Se)	mg/l	.02	< 0.05	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05
Silver (Ag)	mg/l	.1	< 0.025	< 0.01	< 0.01	< 0.025	< 0.025	< 0.025
Sodium (Na)	mg/l		2900	2600	2700	2700	3100	2800
Thallium (Tl)	mg/l	.0005	< 0.025	< 0.02	< 0.02	< 0.025	< 0.025	< 0.025
Vanadium (V)	mg/l		0.03	0.032	0.03	0.032	0.035	0.036
Zinc (Zn)	mg/l	5	< 0.05	0.04	30	0.07	< 0.05	< 0.05

Table 5B
Groundwater Monitoring Wells
PCB and Pesticides Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
PCB and Pesticides Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
PCB and Pesticides Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
PCB and Pesticides Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
PCB and Pesticides Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	NYSDEC Ambient Water Quality Standards and Guidance Values	Unit	MW-109								
			Jul-92	May-06	Nov-06	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
PCB											
Aroclor 1016		ug/l		< 1							
Aroclor 1221		ug/l		< 1							
Aroclor 1232		ug/l		< 1							
Aroclor 1242		ug/l		< 1							
Aroclor 1248		ug/l		< 1							
Aroclor 1254		ug/l		< 1							
Aroclor 1260		ug/l		< 1							
Pest											
4,4'-DDD	.3	ug/l		< 0.014 U	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	.2	ug/l		< 0.0088 U	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	.2	ug/l		< 0.01 U	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aldrin		ug/l		< 0.0058 U	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
alpha-BHC	.01	ug/l		< 0.011 U	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
alpha-Chlordane		ug/l		< 0.0055 U						---	---
beta-BHC	.04	ug/l		< 0.013 U	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
delta-BHC	.04	ug/l		< 0.0022 U	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	.004	ug/l		< 0.0057 U	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I		ug/l		< 0.0035 U	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Endosulfan II		ug/l		< 0.012 U	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Endosulfan Sulfate		ug/l		BJVR#	< 0.014 U	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Endrin		ug/l			< 0.025 U	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin Aldehyde	5	ug/l			< 0.028 U	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Endrin ketone	5	ug/l			< 0.016 U	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
gamma-BHC (Lindane)	.05	ug/l			< 0.0052 U	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
gamma-Chlordane		ug/l				< 0.0061 U				---	---
Heptachlor	.04	ug/l				< 0.0078 U	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor Epoxide	.03	ug/l				< 0.0057 U	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	35	ug/l				< 0.041 U	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Technical Chlordane	.05	ug/l					< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	.06	ug/l					< 0.21 U	< 1	< 1	< 1	< 1

Table 5B
Groundwater Monitoring Wells
PCB and Pesticides Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
PCB and Pesticides Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
PCB and Pesticides Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
PCB and Pesticides Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
PCB and Pesticides Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
PCB and Pesticides Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
PCB and Pesticides Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	NYSDEC Ambient Water Quality Standards and Guidance Values	Unit	MW-122							
			Aug-02	May-06	Nov-06	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09
PCB										
Aroclor 1016		ug/l			< 1					
Aroclor 1221		ug/l			< 1					
Aroclor 1232		ug/l			< 1					
Aroclor 1242		ug/l			< 1					
Aroclor 1248		ug/l			< 1					
Aroclor 1254		ug/l			< 1					
Aroclor 1260		ug/l			< 1					
Pest										
4,4'-DDD	.3	ug/l		< 0.016 U	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	.2	ug/l		< 0.0096 U	< 0.05	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05
4,4'-DDT	.2	ug/l		< 0.011 U	< 0.1	< 0.05	< 0.05	< 0.05	< 0.1	< 0.1
Aldrin		ug/l	0.0093 JV	0.033 JM	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
alpha-BHC	.01	ug/l		< 0.012 U	< 0.05			< 0.05	< 0.05	< 0.05
alpha-Chlordane		ug/l		< 0.006 U		< 0.05	< 0.05		---	---
beta-BHC	.04	ug/l		0.24 M	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
delta-BHC	.04	ug/l		0.038 JM	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	.004	ug/l		0.019 J	< 0.05	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05
Endosulfan I		ug/l		< 0.0038 U	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Endosulfan II		ug/l		< 0.013 U	< 0.1	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1
Endosulfan Sulfate		ug/l		< 0.015 U	< 0.3	< 0.05	< 0.05	< 0.3	< 0.3	< 0.3
Endrin		ug/l		< 0.027 U	< 0.05	< 0.3	< 0.3	< 0.05	< 0.05	< 0.05
Endrin Aldehyde	5	ug/l		< 0.031 U	< 0.3	< 0.1	< 0.1	< 0.3	< 0.3	< 0.3
Endrin ketone	5	ug/l		< 0.018 U	< 0.1	< 0.05	< 0.05	< 0.1	< 0.1	< 0.1
gamma-BHC (Lindane)	.05	ug/l		< 0.0057 U	< 0.05			< 0.05	< 0.05	< 0.05
gamma-Chlordane		ug/l		0.0096 JM		< 0.05	< 0.05		---	---
Heptachlor	.04	ug/l		< 0.0085 U	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor Epoxide	.03	ug/l		< 0.0062 U	< 0.05	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05
Methoxychlor	35	ug/l		< 0.044 U	< 0.1	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1
Technical Chlordane	.05	ug/l			< 0.2	< 1	< 1	< 0.2	< 0.2	< 0.2
Toxaphene	.06	ug/l		< 0.23 U	< 1			< 1	< 1	< 1

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

**Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL**

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	NYSDEC Ambient Water Quality Standards and Guidance Values	Unit	MW-110								
			Jul-92	May-06	Nov-06	Jul-07	Feb-08	Mar-08	Sep-08	Apr-09	Oct-09
SVOC											
1,2,4-Trichlorobenzene	5	ug/l			< 2	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene as a SVOC	3	ug/l			< 2	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene as a SVOC	3	ug/l			w	< 2	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene as a SVOC	3	ug/l			e	< 2	< 1	< 1	< 1	< 1	< 1
2,2-oxybis (1-chloropropane)	5	ug/l			i	< 2	< 1	< 1	< 1	< 1	< 1
2,4,5-Trichlorophenol	2 *	ug/l			d	< 2	< 1	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	2 *	ug/l			r	< 2	< 1	< 1	< 1	< 1	< 1
2,4-Dichlorophenol	2 *	ug/l			y	< 2	< 1	< 1	< 1	< 1	< 1
2,4-Dimethylphenol	2 *	ug/l				< 20	< 10	< 10	< 10	< 10	< 10
2,4-Dinitrophenol	2 *	ug/l				< 2	< 1	< 1	< 1	< 1	< 1
2,4-Dinitrotoluene	5	ug/l				< 2	< 1	< 1	< 1	< 1	< 1
2,6-Dinitrotoluene	5	ug/l				< 2	< 1	< 1	< 1	< 1	< 1
2-Choronaphthalene	10	ug/l				< 2	< 1	< 1	< 1	< 1	< 1
2-Methylnaphthalene		ug/l				< 2	< 1	< 1	< 1	< 1	< 1
2-Nitroaniline	5	ug/l				< 2	< 1	< 1	< 1	< 1	< 1
2-Nitrophenol	2 *	ug/l				< 2	< 1	< 1	< 1	< 1	< 1
3,3-Dichlorobenzidine	5	ug/l				< 20	< 10	< 10	< 10	< 10	< 10
3-Nitroaniline	5	ug/l				< 2	< 1	< 1	< 1	< 1	< 1
4,6-Dinitro-2-methylphenol		ug/l				< 2	< 1	< 1	< 1	< 1	< 1
4-Bromophenyl Phenyl Ether		ug/l				< 20	< 10	< 10	< 10	< 10	< 10
4-chloro-3-methylphenol		ug/l				< 2	< 1	< 1	< 1	< 1	< 1
4-Chloroaniline	5	ug/l				< 2	< 1	< 1	< 1	< 1	< 1
4-Chlorophenyl Phenyl Ether		ug/l				< 20	< 10	< 10	< 10	< 10	< 10
4-Methylphenol (m/p-cresol)		ug/l				< 2	< 1	< 1	< 1	< 1	< 1
4-Nitroaniline	5	ug/l				< 2	< 1	< 1	< 1	< 1	< 1
4-Nitrophenol		ug/l				< 20	< 10	< 10	< 10	< 10	< 10
Acenaphthene	20	ug/l				< 2	< 1	< 1	< 1	< 1	< 1
Acenaphthylene		ug/l				< 2	< 1	< 1	< 1	< 1	< 1
Anthracene	50	ug/l				< 2	< 1	< 1	< 1	< 1	< 1

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

**Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL**

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PFI

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Compounds of Concern	NYSDEC Ambient Water Quality Standards and Guidance Values	Unit	MW-122								
			Aug-02	May-06	Nov-06	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
SVOC											
1,2,4-Trichlorobenzene	5	ug/l		< 0.7 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene as a SVOC	3	ug/l		< 0.7 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene as a SVOC	3	ug/l		1 J	< 2	< 10	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene as a SVOC	3	ug/l		5 J	< 2	< 10	< 1	< 1	< 1	< 1	< 1
2,2-oxybis (1-chloropropane)	5	ug/l		< 0.6 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
2,4,5-Trichlorophenol	2 *	ug/l		< 0.8 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	2 *	ug/l		< 0.8 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
2,4-Dichlorophenol	2 *	ug/l		< 0.8 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
2,4-Dimethylphenol	2 *	ug/l		< 0.7 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
2,4-Dinitrophenol	2 *	ug/l		< 5 U	< 20	< 100	< 10	< 10	< 10	< 10	< 10
2,4-Dinitrotoluene	5	ug/l		< 0.8 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
2,6-Dinitrotoluene	5	ug/l		< 0.6 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
2-Chloronaphthalene	10	ug/l		< 0.7 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
2-Methylnaphthalene		ug/l		< 0.6 U	< 2	< 10	< 1	< 1	< 1	1.8	< 1
2-Nitroaniline	5	ug/l		< 1 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
2-Nitrophenol	2 *	ug/l		< 0.8 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
3,3-Dichlorobenzidine	5	ug/l		< 1 U	< 20	< 100	< 10	< 10	< 10	< 10	< 10
3-Nitroaniline	5	ug/l		< 0.7 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
4,6-Dinitro-2-methylphenol		ug/l		< 4 U	< 20	< 100	< 10	< 10	< 10	< 10	< 10
4-Bromophenyl Phenyl Ether		ug/l		< 0.9 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
4-chloro-3-methylphenol		ug/l		< 0.5 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
4-Chloroaniline	5	ug/l		< 0.4 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
4-Chlorophenyl Phenyl Ether		ug/l		< 0.8 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
4-Methylphenol (m/p-cresol)		ug/l		< 0.3 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
4-Nitroaniline	5	ug/l		< 1 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
4-Nitrophenol		ug/l		< 2 U	< 20	< 100	< 10	< 10	< 10	< 10	< 10
Acenaphthene	20	ug/l		3 J	< 2	< 10	1.7	3.9	1.7	2.4	< 1
Acenaphthylene		ug/l		< 0.8 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
Anthracene	50	ug/l		7 JH	< 2	< 10	< 1	< 1	< 1	< 1	< 1

Table 5B
Groundwater Monitoring Wells
SVOC Data Comparison
Pelham Bay Landfill Annual Report
March 2009 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Compounds of Concern	NYSDEC Ambient Water Quality Standards and Guidance Values	Unit	MW-104								
			Jul-92	May-06	Nov-06	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
VOC											
1,1,1-Trichloroethane	5	ug/l		< 0.4 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
1,1,2,2-Tetrachloroethane	5	ug/l		< 0.4 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
1,1,2-Trichloroethane	1	ug/l		< 0.6 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
1,1-Dichloroethane	5	ug/l		< 0.6 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
1,1-Dichloroethene	5	ug/l		< 0.7 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
1,2-Dichlorobenzene as a VOC	3	ug/l								---	---
1,2-Dichloroethane	0.6	ug/l		< 0.6 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
1,2-Dichloroethene (total)	5 **	ug/l			< 2	< 2	< 2	< 2	< 10	< 2	< 2
1,2-Dichloropropane	1	ug/l		< 0.9 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
1,3-Dichlorobenzene as a VOC	3	ug/l								---	---
1,4-Dichlorobenzene as a VOC	3	ug/l								---	---
2-Butanone (MEK)	50	ug/l		< 1.2 U	< 10	< 10	< 10	< 10	< 50	< 10	< 10
2-Chloroethylvinylether		ug/l								---	---
2-Chlorophenol		ug/l		< 0.6 U	< 2	< 1	< 1	< 1	< 1	< 1	< 1
2-Hexanone	50	ug/l		< 0.8 U	< 10	< 10	< 10	< 10	< 50	< 10	< 10
2-Methylphenol (o-cresol)		ug/l		< 0.6 U	< 2	< 1	< 1	< 1	< 1	< 1	< 1
4-methyl-2-pentanone (MIBK)		ug/l		< 0.7 U	< 10	< 10	< 10	< 10	< 50	< 10	< 10
Acetone	50	ug/l		2.5 J	< 10	< 10	< 10	< 10	< 50	< 10	< 10
Benzene	1	ug/l	2 J	< 0.4 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
Bis(2-chloroethyl)ether	1	ug/l		< 0.9 U	< 2	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichlormethane	50	ug/l		< 0.4 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
Bromoform	50	ug/l		< 0.8 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
Bromomethane	5	ug/l		< 1.2 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
Carbon Disulfide	60	ug/l	1 J	4.2 J	4	3	1	1	< 5	< 1	< 1
Carbon Tetrachloride	5	ug/l		< 1 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
PelhamBay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Compounds of Concern	NYSDEC Ambient Water Quality Standards and Guidance Values	Unit	MW-104								
			Jul-92	May-06	Nov-06	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
Chlorobenzene	5	ug/l	7	< 0.4 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
Chloroethane	5	ug/l		< 0.8 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
Chloroform	7	ug/l		< 0.7 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
Chloromethane	5	ug/l		< 0.5 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
cis-1,2-Dichloroethene	5	ug/l		< 0.6 U						---	---
cis-1,3-Dichloropropene		ug/l		< 0.5 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
Dibromochloromethane	50	ug/l		< 0.5 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
Ethylbenzene	5	ug/l		< 1 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
m + p Xylene	5 ***	ug/l			< 2	< 2	< 2	< 2	< 10	< 2	< 2
Methylene Chloride	5	ug/l	BJR#	< 0.4 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
o Xylene	5	ug/l			< 1	< 1	< 1	< 1	< 5	< 1	< 1
Phenol	2 *	ug/l		< 0.4 U	< 2	< 1	< 1	< 1	< 1	< 1	< 1
Silanol, trimethyl		ug/l								---	---
Styrene	930	ug/l		< 0.5 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
Tetrachloroethene	5	ug/l		< 0.5 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
Toluene	5	ug/l		< 0.3 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
trans-1,2-Dichloroethene	5	ug/l		< 0.5 U						---	---
trans-1,3-Dichloropropene		ug/l		< 0.8 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
Trichloroethene	5	ug/l		< 0.7 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
Vinyl Acetate		ug/l								---	---
Vinyl Chloride	2	ug/l		< 0.8 U	< 1	< 1	< 1	< 1	< 5	< 1	< 1
Xylenes (Total)	5 ***	ug/l		< 1 U	< 3	< 3	< 3	< 3	< 15	< 3	< 3

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
PelhamBay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Compounds of Concern	NYSDEC Ambient Water Quality Standards and Guidance Values	Unit	MW-106					
			Aug-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
VOC								
1,1,1-Trichloroethane	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
1,1,2,2-Tetrachloroethane	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
1,1,2-Trichloroethane	1	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
1,1-Dichloroethane	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
1,1-Dichloroethene	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
1,2-Dichlorobenzene as a VOC	3	ug/l					--	--
1,2-Dichloroethane	0.6	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
1,2-Dichloroethene (total)	5 **	ug/l	< 2	< 2	< 2	< 10	< 2	< 2
1,2-Dichloropropane	1	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
1,3-Dichlorobenzene as a VOC	3	ug/l					--	--
1,4-Dichlorobenzene as a VOC	3	ug/l					--	--
2-Butanone (MEK)	50	ug/l	< 10	< 10	< 10	< 50	< 10	< 10
2-Chloroethylvinylether		ug/l					--	--
2-Chlorophenol		ug/l	< 1	< 1	< 1	< 1	< 1	< 1
2-Hexanone	50	ug/l	< 10	< 10	< 10	< 50	< 10	< 10
2-Methylphenol (o-cresol)		ug/l	< 1	< 1	< 1	< 1	< 1	< 1
4-methyl-2-pentanone (MIBK)		ug/l	< 10	< 10	< 10	< 50	< 10	< 10
Acetone	50	ug/l	< 10	< 10	< 10	< 50	< 10	< 10
Benzene	1	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Bis(2-chloroethyl)ether	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	50	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Bromoform	50	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Bromomethane	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Carbon Disulfide	60	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Carbon Tetrachloride	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
PelhamBay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Compounds of Concern	NYSDEC Ambient Water Quality Standards and Guidance Values	Unit	MW-106					
			Aug-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
Chlorobenzene	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Chloroethane	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Chloroform	7	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Chloromethane	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
cis-1,2-Dichloroethene	5	ug/l					---	---
cis-1,3-Dichloropropene		ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Dibromochloromethane	50	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Ethylbenzene	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
m + p Xylene	5 ***	ug/l	< 2	< 2	< 2	< 10	< 2	< 2
Methylene Chloride	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
o Xylene	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Phenol	2 *	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Silanol, trimethyl		ug/l					---	---
Styrene	930	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Tetrachloroethene	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Toluene	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
trans-1,2-Dichloroethene	5	ug/l					---	---
trans-1,3-Dichloropropene		ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Trichloroethene	5	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Vinyl Acetate		ug/l					---	---
Vinyl Chloride	2	ug/l	< 1	< 1	< 1	< 5	< 1	< 1
Xylenes (Total)	5 ***	ug/l	< 3	< 3	< 3	< 15	< 3	< 3

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

**Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL**

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

**Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL**

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
PelhamBay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Compounds of Concern	NYSDEC Ambient Water Quality Standards and Guidance Values	Unit	MW-120								
			Aug-02	May-06	Nov-06	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
VOC											
1,1,1-Trichloroethane	5	ug/l		< 0.4 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	5	ug/l		< 0.4 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,1,2-Trichloroethane	1	ug/l		< 0.6 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,1-Dichloroethane	5	ug/l		< 0.6 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,1-Dichloroethene	5	ug/l		< 0.7 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,2-Dichlorobenzene as a VOC	3	ug/l							---	---	
1,2-Dichloroethane	0.6	ug/l		< 0.6 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,2-Dichloroethene (total)	5 **	ug/l	1 J		< 2	< 2	< 2	< 10	< 2	< 2	< 2
1,2-Dichloropropane	1	ug/l		< 0.9 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,3-Dichlorobenzene as a VOC	3	ug/l							---	---	
1,4-Dichlorobenzene as a VOC	3	ug/l							---	---	
2-Butanone (MEK)	50	ug/l		2.3 J	< 10	< 10	< 10	< 50	< 10	< 10	< 10
2-Chloroethylvinylether		ug/l							---	---	
2-Chlorophenol		ug/l		< 0.6 U	< 2	< 1	< 1	< 1	< 1	< 1	< 1
2-Hexanone	50	ug/l		< 0.8 U	< 10	< 10	< 10	< 50	< 10	< 10	< 10
2-Methylphenol (o-cresol)		ug/l		51	< 0.6 U	< 2	< 1	< 1	< 1	< 1	< 1
4-methyl-2-pentanone (MIBK)		ug/l			< 0.7 U	< 10	< 10	< 10	< 50	< 10	< 10
Acetone	50	ug/l	JR#	21 B	< 10	< 10	< 10	< 50	< 10	< 10	< 10
Benzene	1	ug/l		3 J	< 0.4 U	< 1	< 1	< 1	< 5	< 1	< 1
Bis(2-chloroethyl)ether	1	ug/l			< 0.9 U	< 2	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	50	ug/l			< 0.4 U	< 1	< 1	< 1	< 5	< 1	< 1
Bromoform	50	ug/l			< 0.8 U	< 1	< 1	< 1	< 5	< 1	< 1
Bromomethane	5	ug/l			< 1.2 U	< 1	< 1	< 1	< 5	< 1	< 1
Carbon Disulfide	60	ug/l			< 0.9 U	< 1	< 1	< 1	< 5	< 1	< 1
Carbon Tetrachloride	5	ug/l			< 1 U	< 1	< 1	< 1	< 5	< 1	< 1

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
PelhamBay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Compounds of Concern	NYSDEC Ambient Water Quality Standards and Guidance Values	Unit	MW-120									
			Aug-02	May-06	Nov-06	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09	
Chlorobenzene	5	ug/l	12	< 0.4 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1	
Chloroethane	5	ug/l		< 0.8 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1	
Chloroform	7	ug/l		< 0.7 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1	
Chloromethane	5	ug/l		< 0.5 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1	
cis-1,2-Dichloroethene	5	ug/l		< 0.6 U					---	---		
cis-1,3-Dichloropropene				< 0.5 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1	
Dibromochloromethane	50	ug/l		< 0.5 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1	
Ethylbenzene	5	ug/l		5	< 1 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
m + p Xylene	5 ***	ug/l			< 2	< 2	< 2	< 10	< 2	< 2	< 2	
Methylene Chloride	5	ug/l	BJR#	< 0.4 UB	< 1	< 1	< 1	< 5	< 1	< 1	< 1	
o Xylene	5	ug/l			< 1	< 1	< 1	< 5	< 1	< 1	< 1	
Phenol	2 *	ug/l		< 0.4 U	< 2	< 1	< 1	< 1	< 1	< 1	< 1	
Silanol, trimethyl		ug/l							---	---		
Styrene	930	ug/l		< 0.5 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1	
Tetrachloroethene	5	ug/l		< 0.5 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1	
Toluene	5	ug/l	8	< 0.3 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1	
trans-1,2-Dichloroethene	5	ug/l		< 0.5 U					---	---		
trans-1,3-Dichloropropene				< 0.8 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1	
Trichloroethene	5	ug/l		< 0.7 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1	
Vinyl Acetate		ug/l							---	---		
Vinyl Chloride	2	ug/l		< 0.8 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1	
Xylenes (Total)	5 ***	ug/l	9	< 1 U	< 3	< 3	< 3	< 15	< 3	< 3	< 3	

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Compounds of Concern	NYSDEC Ambient Water Quality Standards and Guidance Values	Unit	MW-120B								
			Jul-92	May-06	Nov-06	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
VOC											
1,1,1-Trichloroethane	5	ug/l		< 0.4 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	5	ug/l		< 0.4 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,1,2-Trichloroethane	1	ug/l		< 0.6 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,1-Dichloroethane	5	ug/l		< 0.6 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,1-Dichloroethene	5	ug/l		< 0.7 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,2-Dichlorobenzene as a VOC	3	ug/l							---	---	
1,2-Dichloroethane	0.6	ug/l		< 0.6 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,2-Dichloroethene (total)	5 **	ug/l			< 2	< 2	< 2	< 10	< 2	< 2	< 2
1,2-Dichloropropane	1	ug/l		< 0.9 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
1,3-Dichlorobenzene as a VOC	3	ug/l							---	---	
1,4-Dichlorobenzene as a VOC	3	ug/l							---	---	
2-Butanone (MEK)	50	ug/l		< 1.2 U	< 10	< 10	< 10	< 50	< 10	< 10	< 10
2-Chloroethylvinylether		ug/l							---	---	
2-Chlorophenol		ug/l		< 0.6 U	< 2	< 1	< 1	< 1	< 1	< 1	< 1
2-Hexanone	50	ug/l		< 0.8 U	< 10	< 10	< 10	< 50	< 10	< 10	< 10
2-Methylphenol (o-cresol)		ug/l		< 0.6 U	< 2	< 1	< 1	< 1	< 1	< 1	< 1
4-methyl-2-pentanone (MIBK)		ug/l		< 0.7 U	< 10	< 10	< 10	< 50	< 10	< 10	< 10
Acetone	50	ug/l		5.1 JB	< 10	< 10	< 10	< 50	< 10	< 10	< 10
Benzene	1	ug/l		< 0.4 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Bis(2-chloroethyl)ether	1	ug/l		< 0.9 U	< 2	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	50	ug/l		< 0.4 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Bromoform	50	ug/l		< 0.8 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Bromomethane	5	ug/l		< 1.2 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Carbon Disulfide	60	ug/l			1.2 J	< 1	< 1	< 1	< 5	< 1	< 1
Carbon Tetrachloride	5	ug/l			< 1 U	< 1	< 1	< 1	< 5	< 1	< 1

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
PelhamBay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Compounds of Concern	NYSDEC Ambient Water Quality Standards and Guidance Values	Unit	MW-120B								
			Jul-92	May-06	Nov-06	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
Chlorobenzene	5	ug/l		< 0.4 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Chloroethane	5	ug/l		< 0.8 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Chloroform	7	ug/l		< 0.7 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Chloromethane	5	ug/l		< 0.5 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
cis-1,2-Dichloroethene	5	ug/l		< 0.6 U					---	---	---
cis-1,3-Dichloropropene				< 0.5 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Dibromochloromethane	50	ug/l		< 0.5 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Ethylbenzene	5	ug/l		< 1 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
m + p Xylene	5 ***	ug/l		< 2	< 2	< 2	< 10	< 2	< 2	< 2	< 2
Methylene Chloride	5	ug/l	BJR#	< 0.4 UB	< 1	< 1	< 1	< 5	< 1	< 1	< 1
o Xylene	5	ug/l			< 1	< 1	< 1	< 5	< 1	< 1	< 1
Phenol	2 *	ug/l		< 0.4 U	< 2	< 1	< 1	< 1	< 1	< 1	< 1
Silanol, trimethyl									---	---	---
Styrene	930	ug/l		< 0.5 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Tetrachloroethene	5	ug/l		< 0.5 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Toluene	5	ug/l		< 0.3 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
trans-1,2-Dichloroethene	5	ug/l		< 0.5 U					---	---	---
trans-1,3-Dichloropropene				< 0.8 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Trichloroethene	5	ug/l		< 0.7 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Vinyl Acetate									---	---	---
Vinyl Chloride	2	ug/l		< 0.8 U	< 1	< 1	< 1	< 5	< 1	< 1	< 1
Xylenes (Total)	5 ***	ug/l		< 1 U	< 3	< 3	< 3	< 15	< 3	< 3	< 3

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
PelhamBay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Compounds of Concern	NYSDEC Ambient Water Quality Standards and Guidance Values	Unit	MW-122									
			Aug-02	May-06	Nov-06	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09	
VOC												
1,1,1-Trichloroethane	5	ug/l		< 0.4 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5	
1,1,2,2-Tetrachloroethane	5	ug/l		< 0.4 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5	
1,1,2-Trichloroethane	1	ug/l		< 0.6 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5	
1,1-Dichloroethane	5	ug/l		< 0.6 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5	
1,1-Dichloroethene	5	ug/l		< 0.7 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5	
1,2-Dichlorobenzene as a VOC	3	ug/l								---	---	
1,2-Dichloroethane	0.6	ug/l		< 0.6 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5	
1,2-Dichloroethene (total)	5 **	ug/l			< 2	< 2	< 20	< 10	< 10	< 10	< 10	
1,2-Dichloropropane	1	ug/l		< 0.9 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5	
1,3-Dichlorobenzene as a VOC	3	ug/l								---	---	
1,4-Dichlorobenzene as a VOC	3	ug/l								---	---	
2-Butanone (MEK)	50	ug/l		2.4 J	< 10	< 10	< 100	< 50	< 50	< 50	< 50	
2-Chloroethylvinylether		ug/l								---	---	
2-Chlorophenol		ug/l		< 0.6 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1	
2-Hexanone	50	ug/l		< 0.8 U	< 10	< 10	< 100	< 50	< 50	< 50	< 50	
2-Methylphenol (o-cresol)		ug/l		< 0.6 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1	
4-methyl-2-pentanone (MIBK)		ug/l		< 0.7 U	< 10	< 10	< 100	< 50	< 50	< 50	< 50	
Acetone	50	ug/l		116 J	15 B	< 10	13	< 100	< 50	< 50	< 50	
Benzene	1	ug/l		4 J	5.7	6	5	< 10	6	6	7	
Bis(2-chloroethyl)ether	1	ug/l		< 0.9 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1	
Bromodichloromethane	50	ug/l		< 0.4 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5	
Bromoform	50	ug/l		< 0.8 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5	
Bromomethane	5	ug/l		< 1.2 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5	
Carbon Disulfide	60	ug/l		< 0.9 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5	
Carbon Tetrachloride	5	ug/l		< 1 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5	

Table 5B
Groundwater Monitoring Wells
VOC Data Comparison
PelhamBay Landfill Annual Report
March 2008 thru December 2009
Contract 1140-PEL

Compounds of Concern	NYSDEC Ambient Water Quality Standards and Guidance Values	Unit	MW-122								
			Aug-02	May-06	Nov-06	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
Chlorobenzene	5	ug/l	25	29	26	24	23	26	27	25	23
Chloroethane	5	ug/l		< 0.8 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5
Chloroform	7	ug/l		< 0.7 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5
Chloromethane	5	ug/l		< 0.5 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	5	ug/l		< 0.6 U						---	---
cis-1,3-Dichloropropene		ug/l		< 0.5 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5
Dibromochloromethane	50	ug/l		< 0.5 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5
Ethylbenzene	5	ug/l	5 J	< 1 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5
m + p Xylene	5 ***	ug/l		< 2	< 2	< 20	< 10	< 10	< 10	< 10	< 10
Methylene Chloride	5	ug/l	BJR#	< 0.4 UB	< 1	< 1	< 10	< 5	< 5	< 5	< 5
o Xylene	5	ug/l			1	1	< 10	< 5	< 5	< 5	< 5
Phenol	2 *	ug/l		< 0.4 U	< 2	< 10	< 1	< 1	< 1	< 1	< 1
Silanol, trimethyl		ug/l								---	---
Styrene	930	ug/l		< 0.5 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5
Tetrachloroethene	5	ug/l		< 0.5 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5
Toluene	5	ug/l	1	3.4 J	4	3	< 10	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	5	ug/l		< 0.5 U						---	---
trans-1,3-Dichloropropene		ug/l		< 0.8 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5
Trichloroethene	5	ug/l		< 0.7 U	< 1	< 1	< 10	< 5	< 5	< 5	< 5
Vinyl Acetate		ug/l								---	---
Vinyl Chloride	2	ug/l		0.81 J	< 1	< 1	< 10	< 5	< 5	< 5	< 5
Xylenes (Total)	5 ***	ug/l		2.6 J	< 3	< 3	< 30	< 15	< 15	< 15	< 15

Table 5B
Groundwater Monitoring Wells
Conventional Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009

Chemical Name	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 104					
			Jul-92	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09
Alkalinity as Bicarbonate	mg/L		2770	---	---	---	---	---
Alkalinity as Carbonate	mg/L		---	---	---	---	---	---
Ammonia (NH3), as N	mg/L		321	9	29	5.6	7.2	4.8
Chemical Oxygen Demand (COD)	mg/L		997	---	---	---	---	---
Chloride	mg/L	500	3720	13000	3	15000	16000	15000
Nitrate Nitrogen	mg/L	20	< 0.01 U	< 0.5	1	< 0.5	< 0.5	< 0.5
Nitrogen, Total Kjeldahl as N (TKN)	mg/L		451 J	---	---	---	---	---
Sulfate	mg/L	500	356	1800	1600	1600	1700	1900
Total Dissolved Solids	mg/L		9230	24000	25000	25000	25000	27000

Table 5B
Groundwater Monitoring Wells
Conventional Data Comparision
Pelham Bay Landfill Annual Report
March 2008 thru December 2009

Chemical Name	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 106						
			Jul-92	Aug-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
Alkalinity as Bicarbonate	mg/L		2040	---	---	---	---	---	---
Alkalinity as Carbonate	mg/L		---	---	---	---	---	---	---
Ammonia (NH3), as N	mg/L		148	8.4	5.6	22	41	24	8.2
Chemical Oxygen Demand (COD)	mg/L		724 J	---	---	---	---	---	---
Chloride	mg/L	500	4270 J	14000	15000	19000	15000	16000	16000
Nitrate Nitrogen	mg/L	20	0.22	4.1	7.9	3.5	< 0.5	1.5	1.6
Nitrogen, Total Kjeldahl as N (TKN)	mg/L		335 J	---	---	---	---	---	---
Sulfate	mg/L	500	542	1700	1900	1500	1600	1800	1500
Total Dissolved Solids	mg/L		9870 J	24000	25000	24000	25000	25000	26000

Table 5B
Groundwater Monitoring Wells
Conventional Data Comparision
Pelham Bay Landfill Annual Report
March 2008 thru December 2009

Chemical Name	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 109						
			Jul-92	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
Alkalinity as Bicarbonate	mg/L		34	---	---	---	---	---	---
Alkalinity as Carbonate	mg/L		---	---	---	---	---	---	---
Ammonia (NH3), as N	mg/L	2.59	4.4	< 0.2	< 0.05	< 0.05	< 0.05	0.4	
Chemical Oxygen Demand (COD)	mg/L	< 50 U	---	---	---	---	---	---	---
Chloride	mg/L	500	468	11	8	31	14	9	91
Nitrate Nitrogen	mg/L	20	< 0.01 U	0.6	2.6	---	2.8	0.9	< 0.5
Nitrogen, Total Kjeldahl as N (TKN)	mg/L		0.36 J	---	---	---	---	---	---
Sulfate	mg/L	500	125	47	60	65	50	56	160
Total Dissolved Solids	mg/L		1170	640	400	600	410	490	690

Table 5B
Groundwater Monitoring Wells
Conventional Data Comparision
Pelham Bay Landfill Annual Report
March 2008 thru December 2009

Chemical Name	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 110						
			Jul-92	Jul-07	Feb-08	Mar-08	Sep-08	Apr-09	Oct-09
Alkalinity as Bicarbonate	mg/L		1064	---	---	---	---	---	---
Alkalinity as Carbonate	mg/L		---	---	---	---	---	---	---
Ammonia (NH3), as N	mg/L		113	9.4	6.6	12	3.2	1.8	5.4
Chemical Oxygen Demand (COD)	mg/L		394 J	---	---	---	---	---	---
Chloride	mg/L	500	5120	12000	76000	14000	15000	21000	15000
Nitrate Nitrogen	mg/L	20	1.61	< 0.5	---	---	< 0.05	< 0.5	0.5
Nitrogen, Total Kjeldahl as N (TKN)	mg/L		168 J	---	---	---	---	---	---
Sulfate	mg/L	500	435	4700	1600	1700	1900	1700	1900
Total Dissolved Solids	mg/L		10540	21000	23000	24000	25000	27000	27000

Table 5B
Groundwater Monitoring Wells
Conventional Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009

Chemical Name	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 113						
			Jul-92	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
Alkalinity as Bicarbonate	mg/L		1350	---	---	---	---	---	---
Alkalinity as Carbonate	mg/L		---	---	---	---	---	---	---
Ammonia (NH3), as N	mg/L		68.5	36	6	30	39	29	30
Chemical Oxygen Demand (COD)	mg/L		181	---	---	---	---	---	---
Chloride	mg/L	500	514	200	130	210	330	190	170
Nitrate Nitrogen	mg/L	20	< 0.01 U	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5
Nitrogen, Total Kjeldahl as N (TKN)	mg/L		156 J	---	---	---	---	---	---
Sulfate	mg/L	500	102	150	110	120	90	110	75
Total Dissolved Solids	mg/L		1620	1100	900	930	990	990	1000

Table 5B
Groundwater Monitoring Wells
Conventional Data Comparision
Pelham Bay Landfill Annual Report
March 2008 thru December 2009

Chemical Name	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 114						
			Aug-92	Aug-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
Alkalinity as Bicarbonate	mg/L		1990	---	---	---	---	---	---
Alkalinity as Carbonate	mg/L		---	---	---	---	---	---	---
Ammonia (NH3), as N	mg/L	233	3.8	0.6	< 0.2	< 0.05	0.4	4.8	
Chemical Oxygen Demand (COD)	mg/L	509	---	---	---	---	---	---	---
Chloride	mg/L	500	638	520	46	19	2000	18	28
Nitrate Nitrogen	mg/L	20	< 0.01 U	2.1	0.7	---	1	0.5	0.9
Nitrogen, Total Kjeldahl as N (TKN)	mg/L	372 J	---	---	---	---	---	---	---
Sulfate	mg/L	500	55	130	180	110	120	70	40
Total Dissolved Solids	mg/L	2680	800	800	580	540	620	670	

Table 5B
Groundwater Monitoring Wells
Conventional Data Comparision
Pelham Bay Landfill Annual Report
March 2008 thru December 2009

Chemical Name	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 119						
			Aug-92	Jul-07	Feb-08	Mar-08	Sep-08	Apr-09	Oct-09
Alkalinity as Bicarbonate	mg/L		574	---	---	---	---	---	---
Alkalinity as Carbonate	mg/L		---	---	---	---	---	---	---
Ammonia (NH3), as N	mg/L		33.5	4.6	0.4	0.4	0.54	0.2	0.6
Chemical Oxygen Demand (COD)	mg/L		620 J	---	---	---	---	---	---
Chloride	mg/L	500	11240	14000	13000	15000	20000	19000	15000
Nitrate Nitrogen	mg/L	20	0.23	< 0.5	---	---	< 0.5	< 0.5	< 0.5
Nitrogen, Total Kjeldahl as N (TKN)	mg/L		52.6	---	---	---	---	---	---
Sulfate	mg/L	500	1680	1700	1900	1700	2000	1900	1500
Total Dissolved Solids	mg/L		25200	23000	23000	26000	25000	27000	26000

Table 5B
Groundwater Monitoring Wells
Conventional Data Comparison
Pelham Bay Landfill Annual Report
March 2008 thru December 2009

Chemical Name	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 120					
			Aug-92	Jul-07	Dec-07	Sep-08	Apr-09	Oct-09
Alkalinity as Bicarbonate	mg/L		5050	---	---	---	---	---
Alkalinity as Carbonate	mg/L		---	---	---	---	---	---
Ammonia (NH3), as N	mg/L		690	2.7	9	1.8	2.8	2.4
Chemical Oxygen Demand (COD)	mg/L		2360	---	---	---	---	---
Chloride	mg/L	500	5320	13000	13000	17000	15000	14000
Nitrate Nitrogen	mg/L	20	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nitrogen, Total Kjeldahl as N (TKN)	mg/L		1640	---	---	---	---	---
Sulfate	mg/L	500	713	650	600	550	630	700
Total Dissolved Solids	mg/L		15200	22000	22000	22000	24000	23000

Table 5B
Groundwater Monitoring Wells
Conventional Data Comparision
Pelham Bay Landfill Annual Report
March 2008 thru December 2009

Chemical Name	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 120B							
			Aug-92	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09	Apr-09	Oct-09
Alkalinity as Bicarbonate	mg/L		724	---	---	---	---	---	---	---
Alkalinity as Carbonate	mg/L		---	---	---	---	---	---	---	---
Ammonia (NH3), as N	mg/L		2.74	31	19	33	28	43	42	44
Chemical Oxygen Demand (COD)	mg/L		628 J	---	---	---	---	---	---	---
Chloride	mg/L	500	13560	14000	14000	17000	20000	16000	16000	14000
Nitrate Nitrogen	mg/L	20	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nitrogen, Total Kjeldahl as N (TKN)	mg/L		4.95	---	---	---	---	---	---	---
Sulfate	mg/L	500	494	1700	2000	1600	1900	1600	1500	1800
Total Dissolved Solids	mg/L		28300	25000	22000	24000	25000	26000	26000	25000

Table 5B
Groundwater Monitoring Wells
Conventional Data Comparision
Pelham Bay Landfill Annual Report
March 2008 thru December 2009

Chemical Name	Unit	NYS Ambient Groundwater Quality Standards for Class GA Waters	MW 122						
			Aug-92	Jul-07	Dec-07	Mar-08	Sep-08	Apr-09	Oct-09
Alkalinity as Bicarbonate	mg/L		1800	---	---	---	---	---	---
Alkalinity as Carbonate	mg/L		---	---	---	---	---	---	---
Ammonia (NH3), as N	mg/L		13.6	300	290	300	290	290	250
Chemical Oxygen Demand (COD)	mg/L		805	---	---	---	---	---	---
Chloride	mg/L	500	1840	2800	2700	4000	2800	3100	2900
Nitrate Nitrogen	mg/L	20	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nitrogen, Total Kjeldahl as N (TKN)	mg/L		35.1	---	---	---	---	---	---
Sulfate	mg/L	500	86	< 25	< 10	< 50	< 25	< 25	< 25
Total Dissolved Solids	mg/L		5730	9300	9200	11000	8500	9500	930

Table 5B
Groundwater Monitoring Wells
Analytical Methods, Data Qualifiers and Footnotes

All Concentrations are in ug/l

U: Analyte was not detected at or above the reporting limit

E: indicates an estimated value because of the presence of interference

B: (inorganics)result is less then the CRDL/RL but greater than or equal to the IDL/MDL

N: MS, MSD : Spike recovery exceeds the upper or lower control limits

ND: Compound not detected

B: (organics) Compound was found in blanks

J: (inorganics)result is less then the RL but greater than or equal to the method detection limit.

J: (organics)Result is an estimated value below the reporting limit or a tentatively un-identified compound

IDL: Instrument detection limit

MDL: method detection limit

RL: reporting limit

R: rejected

NS: No standard available

N/A: Not Applicable

* Guidance Value

**Concentration detected at levels above the NYSDEC Ambient Water Quality Standards
and Guidance Values are shown in bold font.**

<u>Analytical Methods</u>	May-06	Nov-06
VOC	SW846 8260B	EPA 8260
SVOC	SW846 8270C	EPA 8270
PCB	EPA 608	EPA 608
Pesticides	SW846 8081A	EPA 609
Metals	SW846 6010B	EPA 200.7
Mercury	SW846 7470A	EPA 200.8
Cyanide	SM18 4500CNG	EPA 335.3

Tables 5C

Groundwater Elevation Measurements

Groundwater Elevation Measurements
Pelham Bay Landfill

Date 4/9/2009 Time 7:13 Low tide

Measurer John Matthews

Well Number	Top of Well Elevation	Depth to Groundwater (ft)	Groundwater Table Elev.
MW - 104	19.132	18.35	0.782
MW - 106	18.388	18.52	-0.132
MW - 109	23.952	17.4	6.552
MW - 110	20.013	20.4	-0.387
MW - 113	14.442	12.9	1.542
MW - 114	14.66	9.67	4.99
MW - 115	24.807	20.68	4.127
MW - 115B	24.876	20.7	4.176
MW - 117 *	8.077	5.8	2.277
MW - 117B *	Can't locate		Can't locate
MW - 118	19.113	20.85	-1.737
MW - 119	20.421	24.70	-4.279
MW - 120	18.838	22.14	-3.302
MW - 120B	19.296	24.03	-4.734
MW - 121	15.621		well abandonned
MW - 122	17.575	21.08	-3.505
MW - 124 *	Can't locate		Can't locate
MW - 124B *	Can't locate		Can't locate
MW - 126 (PZ-5)	Abandoned		well abandonned
PZ-A	11.951	Flooded	
PZ-B *	14.254	7.69	6.564
PZ-C	11.374	5.50	5.874
PZ-D *	12.411	6.60	5.811
PZ-E	9.545	Flooded	
PZ-F	9.645	6.89	2.755

* MW -117, MW-117B, MW-124, MW-124B, PZ-B & PZ-D

are located outside landfill on Pelham park side

PZ-A, PZ-C, and PZ-E are piezometer wells upstream of slurry wall

PZ-B, PZ-D, and PZ-F are piezometer wells downstream of slurry wall

Groundwater Elevation Measurements
Pelham Bay Landfill

Date 4/9/2009

Time 13:03 High Tide

GROUNDWATER ELEVATION			
Well Number	Top of Well Elevation	Depth to Groundwater (ft)	Groundwater Table Elev.
MW - 104	19.132	17.25	1.882
MW - 106	18.388	16.90	1.488
MW - 109	23.952	17.36	6.592
MW - 110	20.013	18	2.013
MW - 113	14.442	17.46	-3.018
MW - 114	14.66	9.7	4.96
MW - 115	24.807	20.46	4.347
MW - 115B	24.876	20.53	4.346
MW - 117 *	8.077	5.3	2.777
MW - 117B *	Can't locate		Can't locate
MW - 118	19.113	17.18	1.933
MW - 119	20.421	18.60	1.821
MW - 120	18.838	18.66	0.178
MW - 120B	19.296	18.14	1.156
MW - 121	15.621		well abandonned
MW - 122	17.575	16.72	0.855
MW - 124 *	Can't locate		Can't locate
MW - 124B *	Can't locate		Can't locate
MW - 126 (PZ-5)	abandonned		well abandonned
PZ-A	11.951	flooded	flooded
PZ-B *	14.254	7.75	6.504
PZ-C	11.374	5.43	5.944
PZ-D *	12.411	6.60	5.811
PZ-E	9.545	flooded	flooded
PZ-F	9.645	6.70	2.945

* MW -117, MW-117B, MW-124, MW-124B, PZ-B & PZ-D
are located outside landfill on Pelham park side

PZ-A, PZ-C, and PZ-E are piezometer wells upstream of slurry wall

PZ-B, PZ-D, and PZ-F are piezometer wells downstream of slurry wall

*** ALL ELEVATIONS REFER TO BRONX HIGHWAY DATUM, WHICH IS 2.608 FEET
ABOVE MEAN SEA LEVEL AT SANDY HOOK, NEW JERSEY AS ESTABLISHED BY U.S.
COAST AND GEODETIC SURVEY.**

000155

GROUNDWATER ELEVATION CALCULATION SHEET
PELHAM BAY LANDFILL, BRONX, NEW YORK

Date 10/7/2009Time 8:12 am low tideMeasurer JM

Well Number	Top of Well Elevation	Depth to Groundwater (ft)	Groundwater Table Elev.
MW - 104	19.132	19.13	0.002
MW - 106	18.388	20.15	-1.762
MW - 109	23.952	20.4	3.552
MW - 110	20.013	20.48	-0.467
MW - 113	14.442	13.84	0.602
MW - 114	14.66	11.8	2.86
MW - 115	24.807	21.5	3.307
MW - 115B	24.876	21.43	3.446
MW - 117 *	8.077	6.5	1.577
MW - 117B *	Can't locate		
MW - 118	19.113	20.78	-1.667
MW - 119	20.421	24.45	-4.029
MW - 120	18.838	24.74	-5.902
MW - 120B	19.296	24.37	-5.074
MW - 121	15.621		
MW - 122	17.575	21.67	-4.095
MW - 124 *	Can't locate		
MW - 124B *	Can't locate		
MW - 126 (PZ-5)	Can't locate		
PZ-A	11.951	flooded	
PZ-B *	14.254	8.15	6.104
PZ-C	11.374	6.47	4.904
PZ-D *	12.411	6.48	5.931
PZ-E	9.545	7.00	2.545
PZ-F	9.645	7.70	1.945

* MW -117, MW-117B, MW-124, MW-124B, PZ-B & PZ-D
 are located outside landfill on Pelham park side

000156

GROUNDWATER ELEVATION LOG
PELHAM BAY LANDFILL, BRONX, NEW YORK

Date 10/7/2009Measurer J. Matthews

GROUNDWATER ELEVATION			
Well Number	Time	Elevation (ft) *	Comments
MW - 104	8:39	0.002	
MW - 106	8:27	20.15	
MW - 109	8:48	3.552	
MW - 110	8:21	-0.467	
MW - 113	8:44	0.602	
MW - 114	8:51	2.86	
MW - 115	8:57	3.307	
MW - 115B	8:55	3.446	
MW - 117	9:09	1.577	
MW - 117B		0	cannot locate
MW - 118	8:24	-1.667	
MW - 119	8:29	-4.029	
MW - 120	8:36	-5.902	
MW - 120B	8:33	-5.074	
MW - 121		0.00	abandonned
MW - 122	8:42	-4.095	
MW - 124		0.00	cannot locate
MW - 124B		0.00	cannot locate
MW - 126 (PZ-5)		0.00	cannot locate
PZ-A	8:00	0	
PZ-B	9:02	6.104	
PZ-C	8:05	4.904	
PZ-D	9:05	6.48	
PZ-E	8:11	2.545	
PZ-F	8:14	1.945	

PZ-A, PZ-C, and PZ-E are piezometer wells upstream of slurry wall

PZ-B, PZ-D, and PZ-F are piezometer wells downstream of slurry wall

*** ALL ELEVATIONS REFER TO BRONX HIGHWAY DATUM, WHICH IS 2.608 FEET ABOVE MEAN SEA LEVEL AT SANDY HOOK, NEW JERSEY AS ESTABLISHED BY U.S. COAST AND GEODETIC SURVEY.**

Table 6

Leachate Schedule A Analytical Results

Table 6
Leachate Schedule A Analysis
Pelham Bay Landfill
Annual Report March 2009 through December 2009
NYCDEP Contract 1140-PEL

Compound of Concern	3/4/2009	9/18/2009
1,1 Dichloroethane	ug/L < 1	ug/L < 1
1,1 Dichloroethene	ug/L < 1	ug/L < 1
1,2 Dichloroethane	ug/L < 1	ug/L < 1
1,2 Dichloroethene	ug/L < 2	ug/L < 2
1,2 Dichloropropane	ug/L < 1	ug/L < 1
111 Trichloroethane	ug/L < 1	ug/L < 1
112 Trichloroethane	ug/L < 1	ug/L < 1
1122Tetrachloroethane	ug/L < 1	ug/L < 1
2-Butanone	ug/L < 10	ug/L < 10
2-Hexanone	ug/L < 10	ug/L < 10
4-Methyl-2-Pentanone	ug/L < 10	ug/L < 10
Acetone	ug/L < 10	ug/L < 10
Benzene	ug/L < 1	ug/L < 1
Bromodichloromethane	ug/L < 1	ug/L < 1
Bromoform	ug/L < 1	ug/L < 1
Bromomethane	ug/L < 1	ug/L < 1
c-1,3Dichloropropene	ug/L < 1	ug/L < 1
Carbon disulfide	ug/L < 1	ug/L < 1
Carbon Tetrachloride	ug/L < 1	ug/L < 1
Chlorobenzene	ug/L 1	ug/L < 1
Chlorodibromomethane	ug/L < 1	ug/L < 1
Chloroethane	ug/L < 1	ug/L < 1
Chloroform	ug/L < 1	ug/L < 1
Chloromethane	ug/L < 1	ug/L < 1
Ethyl Benzene	ug/L < 1	ug/L < 1
m + p Xylene	ug/L < 2	ug/L < 2
Methylene Chloride	ug/L < 1	ug/L < 1
o Xylene	ug/L < 1	ug/L < 1
Styrene	ug/L < 1	ug/L < 1
t-1,3Dichloropropene	ug/L < 1	ug/L < 1
Tetrachloroethene	ug/L < 1	ug/L < 1
Toluene	ug/L < 1	ug/L < 1
Trichloroethene	ug/L < 1	ug/L < 1
Vinyl Chloride	ug/L < 1	ug/L < 1
Xylene	ug/L < 3	ug/L < 3
1,2 Dichlorobenzene(sv)	ug/L < 1	ug/L < 1
1,3 Dichlorobenzene(sv)	ug/L < 1	ug/L < 1
1,4 Dichlorobenzene(sv)	ug/L < 1	ug/L < 1
124-Trichlorobenzene (sv)	ug/L < 1	ug/L < 1
2,4-Dinitrotoluene	ug/L < 1	ug/L < 1
2,6-Dinitrotoluene	ug/L < 1	ug/L < 1
2-Chloronaphthalene	ug/L < 1	ug/L < 1
2-Methylnaphthalene	ug/L < 1	ug/L < 1
2-Nitroaniline	ug/L < 1	ug/L < 1

Table 6
Leachate Schedule A Analysis
Pelham Bay Landfill
Annual Report March 2009 through December 2009
NYCDEP Contract 1140-PEL

3,3'-Dichlorobenzidine	ug/L	< 10	ug/L	< 10
3-Nitroaniline	ug/L	< 1	ug/L	< 1
4-Bromophenyl phenyl ether	ug/L	< 1	ug/L	< 1
4-Chloroaniline	ug/L	< 1	ug/L	< 1
4-Chlorophenyl phenyl ether	ug/L	< 1	ug/L	< 1
4-Nitroaniline	ug/L	< 1	ug/L	< 1
Acenaphthene	ug/L	< 1	ug/L	< 1
Acenaphthylene	ug/L	< 1	ug/L	< 1
Anthracene	ug/L	< 1	ug/L	< 1
Benzo(a)anthracene	ug/L	< 1	ug/L	< 1
Benzo(a)pyrene	ug/L	< 1	ug/L	< 1
Benzo(b)fluoranthene	ug/L	< 1	ug/L	< 1
Benzo(ghi)perylene	ug/L	< 1	ug/L	< 1
Benzo(k)fluoranthene	ug/L	< 1	ug/L	< 1
BenzylButylPhthalate	ug/L	< 1	ug/L	< 1
Bis(2-chloroethoxy)methane	ug/L	< 1	ug/L	< 1
Bis(2-chloroethyl)ether	ug/L	< 1	ug/L	< 1
Bis(2-chloroisopropyl)ether	ug/L	< 1	ug/L	< 1
Bis(2-ethylhexyl)phthalate	ug/L	7.5	ug/L	5.7
Carbazole	ug/L	< 1	ug/L	< 1
Chrysene	ug/L	< 1	ug/L	< 1
Di-n-Butyl Phthalate	ug/L	< 1	ug/L	< 1
Di-n-octyl Phthalate	ug/L	< 1	ug/L	< 1
Dibenzo(a,h)anthracene	ug/L	< 1	ug/L	< 1
Dibenzofuran	ug/L	< 1	ug/L	< 1
Diethyl Phthalate	ug/L	< 1	ug/L	< 1
Dimethyl Phthalate	ug/L	< 1	ug/L	< 1
Fluoranthene	ug/L	< 1	ug/L	2.2
Fluorene	ug/L	< 1	ug/L	< 1
Hexachlorobenzene	ug/L	< 1	ug/L	< 1
Hexachlorobutadiene	ug/L	< 1	ug/L	< 1
Hexachlorocyclopentadiene	ug/L	< 10	ug/L	< 10
Hexachloroethane	ug/L	< 1	ug/L	< 1
Indeno(1,2,3-cd)pyrene	ug/L	< 1	ug/L	< 1
Isophorone	ug/L	< 1	ug/L	< 1
N-Nitrosodi-n-propylamine	ug/L	< 1	ug/L	< 1
N-Nitrosodiphenylamine	ug/L	< 1	ug/L	< 1
Naphthalene(sv)	ug/L	< 1	ug/L	< 1
Nitrobenzene	ug/L	< 1	ug/L	< 1
Phenanthrene	ug/L	< 1	ug/L	1
Pyrene	ug/L	< 1	ug/L	1.9
2,4,5-Trichlorophenol	ug/L	< 1	ug/L	< 1
2,4,6-Trichlorophenol	ug/L	< 1	ug/L	< 1
2,4-Dichlorophenol	ug/L	< 1	ug/L	< 1
2,4-Dimethylphenol	ug/L	< 1	ug/L	< 1
2,4-Dinitrophenol	ug/L	< 10	ug/L	< 10

Table 6
Leachate Schedule A Analysis
Pelham Bay Landfill
Annual Report March 2009 through December 2009
NYCDEP Contract 1140-PEL

2-Chlorophenol	ug/L	< 1	ug/L	< 1
2-Methyl-4,6-dinitrophenol	ug/L	< 10	ug/L	< 10
2-Methylphenol (o-cresol)	ug/L	< 1	ug/L	< 1
2-Nitrophenol	ug/L	< 1	ug/L	< 1
4-Chloro-3-methylphenol	ug/L	< 1	ug/L	< 1
4-Methylphenol (p-cresol)	ug/L	< 1	ug/L	< 1
4-Nitrophenol	ug/L	< 10	ug/L	< 10
Pentachlorophenol (ms)	ug/L	< 10	ug/L	< 10
Phenol	ug/L	< 1	ug/L	< 1
TotalPet.Hydro.(GC)	mg/L	0.28	mg/L	0.09
a BHC	ug/L	< 0.05	ug/L	< 0.05
Aldrin	ug/L	< 0.05	ug/L	< 0.05
b BHC	ug/L	< 0.05	ug/L	< 0.05
Chlordane	ug/L	< 0.2	ug/L	< 0.2
d BHC	ug/L	< 0.05	ug/L	< 0.05
Dieldrin	ug/L	< 0.05	ug/L	< 0.05
Endosulfan 1	ug/L	< 0.1	ug/L	< 0.1
Endosulfan 2	ug/L	< 0.1	ug/L	< 0.1
Endosulfan Sulfate	ug/L	< 0.3	ug/L	< 0.3
Endrin	ug/L	< 0.05	ug/L	< 0.05
Endrin Aldehyde	ug/L	< 0.3	ug/L	< 0.3
Endrin Ketone	ug/L	< 0.1	ug/L	< 0.1
Heptachlor	ug/L	< 0.05	ug/L	< 0.05
Heptachlor Epoxide	ug/L	< 0.05	ug/L	< 0.05
Lindane	ug/L	< 0.05	ug/L	< 0.05
Methoxychlor	ug/L	< 0.1	ug/L	< 0.1
p,p-DDD	ug/L	< 0.05	ug/L	< 0.05
p,p-DDE	ug/L	< 0.05	ug/L	< 0.05
p,p-DDT	ug/L	< 0.1	ug/L	< 0.1
Toxaphene	ug/L	< 1	ug/L	< 1
Aroclor 1016	ug/L	< 0.07	ug/L	< 0.07
Aroclor 1221	ug/L	< 0.07	ug/L	< 0.07
Aroclor 1232	ug/L	< 0.07	ug/L	< 0.07
Aroclor 1242	ug/L	< 0.07	ug/L	< 0.07
Aroclor 1248	ug/L	< 0.07	ug/L	< 0.07
Aroclor 1254	ug/L	< 0.07	ug/L	< 0.07
Aroclor 1260	ug/L	< 0.07	ug/L	< 0.07
Aluminum as Al	mg/L	0.03	mg/L	0.1
Antimony as Sb	mg/L	< 0.01	mg/L	< 0.03
Arsenic as As	mg/L	0.01	mg/L	< 0.01
Barium as Ba	mg/L	0.14	mg/L	0.1
Beryllium as Be	mg/L	< 0	mg/L	< 0.01
Cadmium as Cd	mg/L	< 0.01	mg/L	< 0.03
Calcium as Ca	mg/L	58	mg/L	50
Chromium as Cr	mg/L	0.01	mg/L	< 0.03
Cobalt as Co	mg/L	< 0.01	mg/L	< 0.03

Table 6
Leachate Schedule A Analysis
Pelham Bay Landfill
Annual Report March 2009 through December 2009
NYCDEP Contract 1140-PEL

Copper as Cu	mg/L	< 0.01	mg/L	< 0.05
Iron as Fe	mg/L	0.48	mg/L	1.3
Lead as Pb	mg/L	< 0.01	mg/L	< 0.03
Magnesium as Mg	mg/L	32	mg/L	25
Manganese as Mn	mg/L	0.18	mg/L	0.22
Mercury as Hg	mg/L	< 0	mg/L	< 0
Nickel as Ni	mg/L	0.02	mg/L	< 0.05
Potassium as K	mg/L	52	mg/L	19
Selenium as Se	mg/L	< 0.01	mg/L	< 0.05
Silver as Ag	mg/L	< 0.01	mg/L	< 0.03
Sodium as Na	mg/L	330	mg/L	190
Thallium as Tl	mg/L	< 0.01	mg/L	< 0.03
Vanadium as V	mg/L	0.02	mg/L	< 0.03
Zinc as Zn	mg/L	0.03	mg/L	0.26
Ammonia as N	mg/L	48	mg/L	9.8
Chloride as Cl	mg/L	440	mg/L	240
Chromium hex as Cr	mg/L	< 0.02	mg/L	< 0.02
Nitrate as N	mg/L	1.6	mg/L	2.9
Sulfate as SO ₄	mg/L	45	mg/L	32
Tot Dissolved Solids	mg/L	1300	mg/L	780

Table 7

Leachate Schedule B Analytical Results

Table 7
Leachate Schedule B Analysis
Pelham Bay Landfill
Annual Report March 2009 through December 2009
NYCDEP Contract 1140-PEL

Compound of Concern	3/4/2009	9/18/2009
Arsenic as As	mg/L 0.008	mg/L < 0.005
Cadmium as Cd	mg/L < 0.005	mg/L < 0.025
Copper as Cu	mg/L < 0.01	mg/L < 0.05
Lead as Pb	mg/L < 0.005	mg/L < 0.025
Mercury as Hg	mg/L < 0.00025	mg/L < 0.00025
Molybdenum as Mo		
Nickel as Ni	mg/L 0.02	mg/L < 0.05
Selenium as Se	mg/L < 0.01	mg/L < 0.05
Zinc as Zn	mg/L 0.03	mg/L 0.26
Ammonia as N	mg/L 48	mg/L 9.8
BOD5	mg/L 7.9	mg/L 2.5
Chloride as Cl	mg/L 440	mg/L 240
Chromium hex as Cr	mg/L < 0.02	mg/L < 0.02
CN amen.to chlorin.	mg/L < 0.02	mg/L < 0.02
COD	mg/L 190	mg/L < 40
Nitrate as N	mg/L 1.6	mg/L 2.9
Non-polar Material	mg/L < 5	mg/L < 5
pH (lab) units	7.8	7.4
Tot Suspended Solids	mg/L 8	mg/L 5
Tot. Kjeldahl N.	mg/L 51	mg/L 12

Table 8

Stormwater Monitoring Analytical Results

Table 8
Stormwater Discharge Analysis
Pelham Bay Landfill
Annual Report March 2009 through December 2009
NYCDEP Contract 1140-PEL

Compound of Concern	units	Stormwater Location 1		Stormwater Location 2
		4/17/09	10/19/2009	4/17/09
1,1 Dichloroethane	ug/L	< 1	< 1	< 1
1,1 Dichloroethene	ug/L	< 1	< 1	< 1
1,2 Dichloroethane	ug/L	< 1	< 1	< 1
1,2 Dichloroethene	ug/L	< 2	< 2	< 2
1,2 Dichloropropane	ug/L	< 1	< 1	< 1
111 Trichloroethane	ug/L	< 1	< 1	< 1
112 Trichloroethane	ug/L	< 1	< 1	< 1
1122Tetrachloroethane	ug/L	< 1	< 1	< 1
2-Butanone	ug/L	< 10	< 10	< 10
2-Hexanone	ug/L	< 10	< 10	< 10
4-Methyl-2-Pentanone	ug/L	< 10	< 10	< 10
Acetone	ug/L	< 10	< 10	< 10
Benzene	ug/L	< 1	< 1	< 1
Bromodichloromethane	ug/L	< 1	< 1	< 1
Bromoform	ug/L	< 1	< 1	< 1
Bromomethane	ug/L	< 1	< 1	< 1
c-1,3Dichloropropene	ug/L	< 1	< 1	< 1
Carbon disulfide	ug/L	< 1	< 1	< 1
Carbon Tetrachloride	ug/L	< 1	< 1	< 1
Chlorobenzene	ug/L	< 1	< 1	< 1
Chlorodibromomethane	ug/L	< 1	< 1	< 1
Chloroethane	ug/L	< 1	< 1	< 1
Chloroform	ug/L	< 1	< 1	< 1
Chloromethane	ug/L	< 1	< 1	< 1
Ethyl Benzene	ug/L	< 1	< 1	< 1
m + p Xylene	ug/L	< 2	< 2	< 2
Methylene Chloride	ug/L	< 1	< 1	< 1
o Xylene	ug/L	< 1	< 1	< 1
Styrene	ug/L	< 1	< 1	< 1
t-1,3Dichloropropene	ug/L	< 1	< 1	< 1
Tetrachloroethene	ug/L	< 1	< 1	< 1
Toluene	ug/L	< 1	< 1	< 1
Trichloroethene	ug/L	< 1	< 1	< 1
Vinyl Chloride	ug/L	< 1	< 1	< 1
Xylene	ug/L	< 3	< 3	< 3
1,2 Dichlorobenzene(sv)	ug/L	< 1	< 30	< 1
1,3 Dichlorobenzene(sv)	ug/L	< 1	< 30	< 1
1,4 Dichlorobenzene(sv)	ug/L	< 1	< 30	< 1
124-Trichlorobenzene (sv)	ug/L	< 1	< 30	< 1
2,4-Dinitrotoluene	ug/L	< 1	< 30	< 1
2,6-Dinitrotoluene	ug/L	< 1	< 30	< 1
2-Chloronaphthalene	ug/L	< 1	< 30	< 1
2-Methylnaphthalene	ug/L	< 1	< 30	< 1

Table 8
Stormwater Discharge Analysis
Pelham Bay Landfill
Annual Report March 2009 through December 2009
NYCDEP Contract 1140-PEL

Compound of Concern	units	Stormwater Location 1		Stormwater Location 2
		4/17/09	10/19/2009	4/17/09
2-Nitroaniline	ug/L	< 1	< 30	< 1
3,3'-Dichlorobenzidine	ug/L	< 10	< 300	< 10
3-Nitroaniline	ug/L	< 1	< 30	< 1
4-Bromophenyl phenyl eth	ug/L	< 1	< 30	< 1
4-Chloroaniline	ug/L	< 1	< 30	< 1
4-Chlorophenyl phenyl eth	ug/L	< 1	< 30	< 1
4-Nitroaniline	ug/L	< 1	< 30	< 1
Acenaphthene	ug/L	< 1	< 30	< 1
Acenaphthylene	ug/L	< 1	< 30	< 1
Anthracene	ug/L	< 1	< 30	< 1
Benzo(a)anthracene	ug/L	< 1	< 30	< 1
Benzo(a)pyrene	ug/L	< 1	< 30	< 1
Benzo(b)fluoranthene	ug/L	< 1	< 30	< 1
Benzo(ghi)perylene	ug/L	< 1	< 30	< 1
Benzo(k)fluoranthene	ug/L	< 1	< 30	< 1
BenzylButylPhthalate	ug/L	< 1	1.1	< 1
Bis(2-chloroethoxy)methan	ug/L	< 1	< 30	< 1
Bis(2-chloroethyl)ether	ug/L	< 1	< 30	< 1
Bis(2-chloroisopropyl)ether	ug/L	< 1	< 30	< 1
Bis(2-ethylhexyl)phthalate	ug/L	5.6	3	5.1
Carbazole	ug/L	< 1	< 30	< 1
Chrysene	ug/L	< 1	< 30	< 1
Di-n-Butyl Phthalate	ug/L	< 1	1.9	< 1
Di-n-octyl Phthalate	ug/L	< 1	< 30	< 1
Dibenzo(a,h)anthracene	ug/L	< 1	< 30	< 1
Dibenzofuran	ug/L	< 1	< 30	< 1
Diethyl Phthalate	ug/L	< 1	< 30	< 1
Dimethyl Phthalate	ug/L	< 1	< 30	< 1
Fluoranthene	ug/L	< 1	< 30	< 1
Fluorene	ug/L	< 1	< 30	< 1
Hexachlorobenzene	ug/L	< 1	< 30	< 1
Hexachlorobutadiene	ug/L	< 1	< 30	< 1
Hexachlorocyclopentadiene	ug/L	< 10	< 300	< 10
Hexachloroethane	ug/L	< 1	< 30	< 1
Indeno(1,2,3-cd)pyrene	ug/L	< 1	< 30	< 1
Isophorone	ug/L	< 1	< 30	< 1
N-Nitrosodi-n-propylamine	ug/L	< 1	< 30	< 1
N-Nitrosodiphenylamine	ug/L	< 1	< 30	< 1
Naphthalene(sv)	ug/L	< 1	< 30	< 1
Nitrobenzene	ug/L	< 1	< 30	< 1
Phenanthrene	ug/L	< 1	< 30	< 1
Pyrene	ug/L	< 1	< 30	< 1
2,4,5-Trichlorophenol	ug/L	< 1	< 30	< 1

Table 8
Stormwater Discharge Analysis
Pelham Bay Landfill
Annual Report March 2009 through December 2009
NYCDEP Contract 1140-PEL

Compound of Concern	units	Stormwater Location 1		Stormwater Location 2
		4/17/09	10/19/2009	4/17/09
2,4,6-Trichlorophenol	ug/L	< 1	< 30	< 1
2,4-Dichlorophenol	ug/L	< 1	< 30	< 1
2,4-Dimethylphenol	ug/L	< 1	< 30	< 1
2,4-Dinitrophenol	ug/L	< 10	< 300	< 10
2-Chlorophenol	ug/L	< 1	< 30	< 1
2-Methyl-4,6-dinitrophenol	ug/L	< 10	< 300	< 10
2-Methylphenol (o-cresol)	ug/L	< 1	< 30	< 1
2-Nitrophenol	ug/L	< 1	< 30	< 1
4-Chloro-3-methylphenol	ug/L	< 1	< 30	< 1
4-Methylphenol (p-cresol)	ug/L	< 1	< 30	< 1
4-Nitrophenol	ug/L	< 10	< 300	< 10
Pentachlorophenol (ms)	ug/L	< 10	< 300	< 10
Phenol	ug/L	< 1	< 30	< 1
a BHC	ug/L	< 0.05	< 0.05	< 0.05
Aldrin	ug/L	< 0.05	< 0.05	< 0.05
b BHC	ug/L	< 0.05	< 0.05	< 0.05
Chlordane	ug/L	< 0.2	< 0.2	< 0.2
d BHC	ug/L	< 0.05	< 0.05	< 0.05
Dieldrin	ug/L	< 0.05	< 0.05	< 0.05
Endosulfan 1	ug/L	< 0.1	< 0.1	< 0.1
Endosulfan 2	ug/L	< 0.1	< 0.1	< 0.1
Endosulfan Sulfate	ug/L	< 0.3	< 0.3	< 0.3
Endrin	ug/L	< 0.05	< 0.05	< 0.05
Endrin Aldehyde	ug/L	< 0.3	< 0.3	< 0.3
Endrin Ketone	ug/L	< 0.1	< 0.1	< 0.1
Heptachlor	ug/L	< 0.05	< 0.05	< 0.05
Heptachlor Epoxide	ug/L	< 0.05	< 0.05	< 0.05
Lindane	ug/L	< 0.05	< 0.05	< 0.05
Methoxychlor	ug/L	< 0.1	< 0.1	< 0.1
p,p-DDD	ug/L	< 0.05	< 0.05	< 0.05
p,p-DDE	ug/L	< 0.05	< 0.05	< 0.05
p,p-DDT	ug/L	< 0.1	< 0.1	< 0.1
Toxaphene	ug/L	< 1	< 1	< 1
Aroclor 1016	ug/L	< 0.065	< 0.065	< 0.065
Aroclor 1221	ug/L	< 0.065	< 0.065	< 0.065
Aroclor 1232	ug/L	< 0.065	< 0.065	< 0.065
Aroclor 1242	ug/L	< 0.065	< 0.065	< 0.065
Aroclor 1248	ug/L	< 0.065	< 0.065	< 0.065
Aroclor 1254	ug/L	< 0.065	< 0.065	< 0.065
Aroclor 1260	ug/L	< 0.065	< 0.065	< 0.065
Aluminum as Al	mg/L	0.03	0.34	< 0.01
Antimony as Sb	mg/L	< 0.005	< 0.005	< 0.005
Arsenic as As	mg/L	0.009	0.006	0.005

Table 8
Stormwater Discharge Analysis
Pelham Bay Landfill
Annual Report March 2009 through December 2009
NYCDEP Contract 1140-PEL

Compound of Concern	units	Stormwater Location 1		Stormwater Location 2
		4/17/09	10/19/2009	4/17/09
Barium as Ba	mg/L	0.046	0.071	0.075
Beryllium as Be	mg/L	< 0.001	< 0.001	< 0.001
Cadmium as Cd	mg/L	< 0.005	< 0.005	< 0.005
Calcium as Ca	mg/L	130	79	130
Chromium as Cr	mg/L	< 0.005	< 0.005	< 0.005
Cobalt as Co	mg/L	< 0.005	< 0.005	< 0.005
Copper as Cu	mg/L	< 0.01	< 0.01	< 0.01
Iron as Fe	mg/L	0.21	1.8	0.03
Lead as Pb	mg/L	< 0.005	< 0.005	< 0.005
Magnesium as Mg	mg/L	16	13	16
Manganese as Mn	mg/L	0.08	0.35	0.03
Mercury as Hg	mg/L	< 0.00025	< 0.00025	< 0.00025
Nickel as Ni	mg/L	< 0.01	< 0.01	< 0.01
Potassium as K	mg/L	10	13	12
Selenium as Se	mg/L	< 0.002	< 0.01	< 0.002
Silver as Ag	mg/L	< 0.005	< 0.005	< 0.005
Sodium as Na	mg/L	12	18	14
Thallium as Tl	mg/L	< 0.005	< 0.005	< 0.005
Vanadium as V	mg/L	< 0.005	< 0.005	< 0.005
Zinc as Zn	mg/L	0.03	0.02	0.04
Cyanide as CN	mg/L	< 0.05	< 0.05	< 0.05
Ammonia as N	mg/L	13	15	13
Chloride as Cl	mg/L	< 0.02	< 0.02	< 0.02
Nitrate as N	mg/L	< 0.5	< 0.5	0.5
Sulfate as SO ₄	mg/L	85	68	60
Tot Dissolved Solids	mg/L	530	430	550