BROOKHAVEN NATIONAL LABORATORY
2013 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

Prepared by

Brookhaven National Laboratory
Environmental Protection Division
Upton, New York

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Executive Summary

This report documents the Operations and Maintenance activities undertaken during the calendar year 2013 for the Current Landfill (AOC 3) and the Former Landfill Areas (Former Landfill AOC 2A, Interim Landfill AOC 2D, and Slit Trench AOC 2E). Brookhaven National Laboratory is responsible for performing this work to comply with the post-closure O&M requirements specified in 6 New York State Code of Rules and Regulations (NYCRR) Part 360, Solid Waste Management Facilities, effective December 31, 1988. The landfill caps are functioning as designed and the 2013 results are consistent with results from previous years.

GROUNDWATER QUALITY

The groundwater quality at both the Current and Former Landfill Areas remains relatively unchanged from 2012. Volatile organic compounds (VOCs) and metals continue to be detected downgradient of the Current Landfill. The most prevalent VOCs detected above standards are chloroethane and benzene, at maximum concentrations of 74 micrograms per liter (µg/L) and 2 µg/L, respectively. As with previous years, aluminum, arsenic, iron, manganese, and sodium were detected downgradient from the Current Landfill at concentrations above applicable standards. Concentrations of these metals were similar to those detected in 2012. Maximum concentrations of aluminum, arsenic, iron, manganese, and sodium in downgradient wells were 629 µg/L, 10.7 µg/L, 68,100 µg/L, 5,410 µg/L, and 40,100 µg/L, respectively. These results are an indicator of continued low level leachate generation at this landfill.

Concentrations of parameters detected in wells downgradient of the Former Landfill Area do not indicate the presence of leachate. VOCs were not detected above standards in Former Landfill Area monitoring wells in 2013. With the exception of iron in well 106-02, leachate indicator parameters and metals concentrations were equivalent to historic background levels. Well 106-02 has exhibited an increasing trend for iron, but all other parameters are at background levels.

The groundwater monitoring well networks for the Current Landfill and Former Landfill Areas are adequate at this time. No changes to either monitoring programs are recommended.

WOODED WETLANDS MONITORING

Sampling at the Wooded Wetland is performed as part of the compliance monitoring for the Current Landfill. Samples are collected every two years. Samples were last collected in 2012 and are scheduled for collection again in 2014.

SOIL-GAS MONITORING

Soil-gas monitoring at the Current Landfill indicates that decomposition is still occurring. However, as with prior years, there is no indication that the vapors are migrating beyond the monitoring well network. Therefore, there is no potential risk to the nearby National Weather Service building. Soil-gas monitoring at the Former Landfill Area indicates that there is no detection of gasses emanating from the landfill. The soil gas monitoring well networks are sufficient to monitor both landfill areas. It is recommended that the soil-gas monitoring frequency at the Former Landfill Areas be reduced

from semi-annual to annual.

MAINTENANCE AND REPAIR

Monthly inspections and maintenance continued throughout 2013. To prevent ruts in the landfills caused by the weight of the lawn mowers and a significant amount of precipitation, the cutting of the grass only occurs when optimal soil conditions are evident. This pattern of vegetation control will continue. The grass was cut once during the spring at the Current Landfill and the fall at the Former Landfill. Small pine seedlings and weeds were noted growing around the edge of both landfills and in the drainage channels throughout the year.

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ACRONYMS

AOC	Area of concern
BNL	Brookhaven National Laboratory
BSA	Brookhaven Science Associates
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CY	Calendar year
DCS	Derived concentration technical standard
DOE	U.S. Department of Energy
DQOs	Data quality objectives
EIMS	Environmental Info. Mgmt. System
HWMF	Former Hazardous Waste Management Facility
LEL	Lower explosive limit
µg/L	Micrograms per liter
mg/L	Milligrams per liter
mrem	Millirems
MS/MSDs	Matrix spike/matrix spike duplicates
NPL	National Priorities List
NYSDEC	NY State Dept. of Environmental Conservation
NYSDOH	NY State Dept. of Health
O&M	Operations and Maintenance
OU	Operable Unit
PCBs	polychlorinated biphenyls
pCi/L	picocuries per liter
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
Sr-90	Strontium 90
TDS	Total dissolved solids
TKN	Total Kjeldahl nitrogen
TSS	Total suspended solids
TVOCs	Total volatile organic compounds
UEL	Upper explosive limit
USEPA	United States Environmental Protection Agency
VOCs	Volatile organic compounds

1.0 INTRODUCTION

This report documents the Operation and Maintenance (O&M) activities conducted during calendar year 2013 for the Current Landfill (Area of Concern [AOC] 3) and the Former Landfill Areas (Former Landfill AOC 2A, Interim Landfill AOC 2D, and Slit Trench AOC 2E). Brookhaven National Laboratory (BNL) is responsible for performing this work to comply with the post-closure O&M requirements specified in the 6 New York State Code of Rules and Regulations (6NYCRR) Part 360, Solid Waste Management Facilities, effective December 31, 1988. The details of the O&M programs are described in the Final Operations and Maintenance Manuals for the Current Landfill (CDM Federal, 1996a) and the Former Landfill Areas (CDM Federal, 1996b).

The following are the primary objectives of the O&M program:

- Monitor the effectiveness of the impermeable caps in protecting groundwater quality;
- Monitor the potential generation and migration of soil-gas; and
- Maintain and monitor the various components of the closure system (landfill caps, drainage structure, and environmental monitoring systems).

This is the eighteenth year of O&M for the Current Landfill, the seventeenth year for the Former Landfill and Slit Trench, and the sixteenth year for the Interim Landfill.

1.1 Site Description and Project Background

BNL is a 5,265-acre site located in central eastern Long Island, New York. The facility is a federally owned and funded international research and learning center managed by Brookhaven Science Associates (BSA) under contract with the United States Department of Energy (DOE). On December 21, 1989, the site was placed on the United States Environmental Protection Agency's (USEPA's) National Priorities List (NPL), a ranking of hazardous waste sites compiled by the federal government as part of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Placing BNL on the NPL resulted in the establishment of a remediation task list for

various locations around the facility. The site subsequently was divided into seven separate remediation work areas known as Operable Units (OU). The Current Landfill and Former Landfill Areas are located in OU I, near the south central portion of the BNL site (see Figure 1).

Current Landfill. The Current Landfill consists of one unlined waste-cell that operated from the late 1960s until 1990 for disposing of waste generated at the Laboratory. An impermeable cap covering the cell was completed in November 1995. Additional information about the cap's construction can be obtained from the *Construction Certification Report for the Current Landfill* (CDM Federal, 1996b). Following the installation of the cap, the post-closure groundwater monitoring program was implemented in January 1996, in accordance with 6 NYCRR Part 360 Section 2.15, Solid Waste Management Facilities (effective December 31, 1988).

Groundwater quality near the Current Landfill is monitored under the O&M program for a wide variety of volatile organic compounds (VOCs), metals, radiological, and water chemistry (landfill leachate) parameters. Monitoring in this vicinity was expanded in 1999 to include a wetland area adjacent to the landfill's eastern boundary. This area, known as the Wooded Wetland area, is a two-acre wetland located between the Former Hazardous Waste Management Facility (HWMF) and the Current Landfill. The wetland receives surface runoff from the Current Landfill and usually is flooded during the spring/early summer and dry in late summer/fall. Monitoring of the Wooded Wetland area has been incorporated into the Current Landfill Monitoring Program and consists of sampling and analyzing surface water and sediment every other year to evaluate the potential for leachate migrating into this area, as originally performed under the *OU I Ecological Risk Assessment* (CDM Federal, 1999).

As required under 6 NYCRR Part 360, groundwater quality must be monitored for a minimum of five years, after which the permittee may request modification of the sampling and analysis requirements. In October 2001, BNL submitted the *Five-Year Evaluation Report for the Current Landfill* (BNL, 2001). This report assessed groundwater trends over the five years after capping, and proposed changes to the sampling program. These changes were implemented in calendar year (CY) 2002. In July 2006, and March 2011 BNL issued the additional five-year review reports which discussed all remediation areas at the site. Review of the Current Landfill was included in these

reports.

Former Landfill Area. The Former Landfill Area encompasses three closely located landfill units; the Former Landfill, the Slit Trench, and the Interim Landfill. The Former Landfill is an unlined waste-disposal area originally used by the United States Army starting in 1918. Waste disposal operations ceased in 1966, and the landfill was covered with soil. The Interim Landfill also is unlined, and was reportedly used for approximately one year between the time the Former Landfill was closed and the Current Landfill was opened. The Slit Trench is unlined as well, and is believed to have operated between 1960 and 1967 for disposal of construction and demolition debris (CDM Federal, 1996).

The Former Landfill and Slit Trench were capped in November 1996 and the Interim Landfill was capped in October 1997. Additional information about the construction of the caps can be found in the *Construction Certification Report for the Former Landfill* (Roy F. Weston, 1997) and *Construction Certification Report for the Interim Landfill Capping* (PW Grosser, 1997). BNL started O&M activities in December 1996 at the Former Landfill and Slit Trench, and in November 1997 at the Interim Landfill. Under this O&M program, groundwater quality in downgradient wells in the vicinity of the Former Landfill is monitored for VOCs, metals, radionuclides, and landfill-leachate parameters.

In March 2002, BNL submitted a *Five-Year Evaluation Report for the Former Landfill* (P.W. Grosser, 2002), which assessed trends in groundwater quality over the five-year period following capping and proposed changes to the sampling program. These changes were implemented in CY03. In July 2006, and March 2011 BNL issued the additional five-year review reports which discussed all remediation areas at the site. Review of the Former Landfill was included in these reports.

1.2 Overview of the Monitoring Program

Groundwater Monitoring

Data quality objectives (DQOs) for each of BNL's groundwater monitoring programs are presented in the *BNL Environmental Monitoring Plan* (BNL, 2013). The design of the data collection network was optimized as part of the process. Such optimization continues annually as part of the O&M

program and is based on the interpretation of new data as well as historical trends. The primary DQO decision identified for the landfill monitoring programs is "Are the controls effectively improving groundwater quality below and downgradient of the landfill?"

Groundwater samples are collected from monitoring wells positioned upgradient and downgradient of each landfill area. Analytical data are reviewed, and determinations are made regarding the effectiveness of landfill controls.

The additional monitoring programs for the landfill areas consist of:

Soil-gas Monitoring. Measurements of methane, Lower Explosive Limit (LEL), and hydrogen sulfide are taken quarterly from monitoring locations surrounding the Current Landfill and semiannually from monitoring locations surrounding the Former Landfill to evaluate the movement of soil-gas from the landfills.

Wooded Wetland Monitoring. Surface waters and sediments in the wooded wetland adjacent to the eastern boundary of the Current Landfill are sampled every two years to evaluate possible effects of landfill leachate on tiger salamander habitats. Samples were last collected in 2012 and are scheduled for collection again in 2014.

Routine Visual Inspection, Maintenance, and Repair. Monthly inspections are performed to monitor the structural and/or operational status of the landfill caps, drainage structures, and environmental monitoring systems.

Leachate Discharge. Visual inspections of the landfills are performed monthly to monitor for signs of leachate discharge. If observed, samples of the leachate are collected and analyzed. Leachate was not observed during 2013.

These activities are discussed in greater detail in Sections 2 through 5 of this report. Section 6 contains the conclusions and recommendations. References are included in Section 7.

2.0 GROUNDWATER MONITORING

2.1 Monitoring Well Networks

2.1.1 Current Landfill

Since January 1996, groundwater quality at the Current Landfill has been monitored using ten downgradient wells and one background monitoring well. Figure 2 depicts the location of the monitoring wells. Figure 3 shows the water table contours for this area in December 2013. The depths of the screen intervals for the Current Landfill wells are listed below.

Well ID	Screen Interval (ft BLS)	Screen Zone
087-09*	24–34	Shallow Glacial
087-11	11–21	Shallow Glacial
087-23	25–40	Shallow Glacial
087-24	70–80	Intermediate Glacial
087-26	70–80	Intermediate Glacial
087-27	5–20	Shallow Glacial
088-109	6–21	Shallow Glacial
088-110	10–25	Shallow Glacial
088-21	5–20	Shallow Glacial
088-22	70–80	Intermediate Glacial
088-23	120–130	Deep Glacial

BLS = Below Land Surface

*Background well

Screen zones were determined based on the following characteristics:

- Shallow Glacial Zone: typical water table within 10 ft of the screen zone.
- Intermediate Glacial Zone: typical water table between 10 ft and 100 ft above the screen zone.
- Deep Glacial Zone: typical water table >100 ft above the screen zone.

2.1.2 Former Landfill

Since January 1997, groundwater quality at the Former Landfill area has been monitored using eight shallow monitoring wells (three background and five downgradient). The locations of the eight monitoring wells are presented in Figure 4. This network was supplemented by the transfer of six wells, 106-20, 106-21, 106-43, 106-44, 106-45 and 106-64 from the Chemical/Animal

Holes project to the Former Landfill Area project in 2010. The transfer was made since the analyte of interest detected in these wells (strontium-90) originated from the Former Landfill. The direction of groundwater flow in the OU I area of the site is generally to the south-southeast. Figure 3 shows the December 2013 water table contours for the area. The screen zones for Former Landfill Area wells are summarized below.

Well ID	Screen Interval (ft BLS)	Screen Zone
086-42*	65–75	Intermediate Glacial
086-72*	41.5–56.5	Shallow Glacial
087-22*	43–53	Shallow Glacial
097-17	29–39	Shallow Glacial
097-64	29–44	Shallow Glacial
097-277	40–55	Shallow Glacial
106-02	55–65	Intermediate Glacial
106-30	29–44	Shallow Glacial
106-20	85-95	Intermediate Glacial
106-21	55-65	Shallow Glacial
106-43	43-53	Shallow Glacial
106-44	44-54	Shallow Glacial
106-45	44-55	Shallow Glacial
106-64	30-40	Shallow Glacial

BLS = Below Land Surface
*Background well

Screen zones were determined based on the following characteristics:

- Shallow Glacial Zone: typical water table within 10 ft of the screen zone.
- Intermediate Glacial Zone: typical water table between 10 ft and 100 ft above the screen zone.

2.1.3 Sampling Frequency and Analytical Parameters

The majority of monitoring wells for the Current Landfill were sampled semiannually, during April and November 2013 for VOCs, metals, and water chemistry parameters. A quarterly VOC sampling frequency was maintained for well 088-109, due to the continued presence of elevated levels of chloroethane. As recommended in the 2012 Landfill Report, radionuclides were sampled once, in November for wells 087-23, 087-27, 088-21, and 088-109.

Based on changes recommended in the *2012 Environmental Monitoring Report, Current and Former Landfill Areas*, starting in the third quarter of 2013, all wells except for 106-02 were

scheduled to be sampled every two years. Therefore, only well 106-02 was sampled for nonradiological parameters. Well 106-02 was also sampled once for gamma, strontium-90, and tritium. Wells 106-20, 106-21, 106-43, 106-44, 106-45 and 106-64 were sampled for strontium-90 in April, prior to the requirement for sampling was dropped.

R&C Formation, Ltd. of Babylon, New York conducted the groundwater sampling, and Test America of St. Louis, Missouri analyzed the samples. See Table 1 for a summary of analyses performed, by well and sampling round.

2.1.4 Quality Assurance / Quality Control

The groundwater samples were collected and analyzed in accordance with strict quality assurance/ quality control (QA/QC) requirements as described in the BNL Groundwater Monitoring Program Quality Assurance Project Plan (QAPP) (BNL, 1999). The analytical results for groundwater samples collected during 2013 satisfied the data-quality objectives. The sampling team personnel are responsible for assuring that a master calibration/maintenance log is maintained for each field-measuring device (e.g., pH conductivity, turbidity meters). The sample coordinator provided a calibration/maintenance log for equipment supplied to the contractor's sampling teams.

The analytical results of samples collected for the Current and Former Landfill Area projects underwent data verification, using BNL standard operating procedures EM-SOP-203, Chemical Data Verification, and EM-SOP-204, Radiochemical Data Verification. These procedures are designed to verify the accuracy and/or completeness of analytical data. The data verification process is implemented to detect the most common analytical problems that affect the quality of the results. To accomplish this task, QA/QC items such as the following were checked: holding times, matrix spikes, laboratory and field blanks, and field logs. If items are found that can affect the use and interpretation of the data, they are either corrected, as in the case of unreadable information on the field logs, or the data are "qualified," as in the case of contamination of the blanks or violations of the holding time.

Guidance on the collection of QA/QC samples is contained in the QAPP, and in BNL procedure EM-SOP-200, Collection and Frequency of Field Quality Control Samples. The QA/QC samples collected included trip blanks, field blanks, matrix spike/matrix spike duplicate (MS/MSDs), and

blind duplicates.

Trip blanks were analyzed for aqueous VOCs only. One trip blank was shipped to the analytical laboratory with each set of samples submitted for VOC analyses. One duplicate sample was collected from the Current Landfill during the second and fourth rounds, and one duplicate sample was collected during the second round from the Former Landfill. No errors were detected in the duplicate analyses. Matrix spike/matrix spike duplicate (MS/MSD) samples were collected at the same frequency as the duplicates. Sample results with concentrations of these compounds within the appropriate range of the associated blank value were declared non-detect. The amount of qualified data was within acceptable limits and did not adversely impact the review of the groundwater quality.

2.2 Landfill Groundwater Monitoring Results

This section summarizes the results for VOCs, metals, water-chemistry parameters, and radionuclides detected for both the Current Landfill and Former Landfill Area in 2013. The historical trends in concentrations of key contaminants are assessed and shown graphically in Figures 5 through 12. Summary tables of all 2013 landfill groundwater data are presented in Tables 2 through 10. Detections that exceed groundwater standards are in bold text. The tables include groundwater standards, laboratory results, minimum detection limits, and laboratory data qualifiers.

The groundwater standards used for evaluating nonradiological groundwater data are those contained in the NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values (June 1998, with addendums April 2000 and June 2004) (NYSDEC 1998, 2000, and 2004) and 6NYCRR Part 703.5. Groundwater standards for radiological isotopes were supplemented with New York State Department of Health's (NYSDOH's) strontium-90 and tritium standards for drinking water. There were no groundwater standards for the gamma constituents; therefore a Groundwater Screening Level was used. This value is based on a dose equivalent of 4 millirems (mrem)/year and was calculated as 4% of the DOE Derived Concentration Technical Standards (DCS) (DOE-STD-1196-2011) for the isotope of concern. These values are listed under the "groundwater standards" column in the summary tables and annotated where appropriate. Laboratory results that exceed the lower of the groundwater

standards or the Cleanup Goals listed in the Record of Decision (ROD) are highlighted in the data summary tables to facilitate review of the information.

The laboratory data qualifiers included in the tables vary for the different analyses. Explanations for the data qualifiers are included in the notes in each table. Complete 2013 laboratory data reports, chain of custody forms, and well-sampling logs for both landfills are archived and available upon request. In addition, analytical results are stored in the BNL Environmental Information Management System (EIMS) database.

2.2.1 Current Landfill

2.2.1.1 Volatile Organic Compounds (VOCs)

Benzene and chloroethane have historically been the primary groundwater contaminants detected downgradient of the Current Landfill. Benzene was detected above its standard of 1 microgram per liter (µg/L) in two monitoring wells: 087-11and 088-109. Chloroethane, was detected above its groundwater standard of 5 µg/L in one downgradient monitoring well, 088-109, during 2013 (Table 2). No other VOCs were detected above groundwater standards during 2013.

Figure 5 plots the concentration trends of total VOCs (TVOC), benzene, and chloroethane. As shown, VOCs remained relatively stable at low concentrations. Overall, the trend plots also show a distinct decrease in VOC concentrations from the high concentrations seen prior to the installation of the cap. This reflects the positive effects of the capping on the groundwater quality downgradient.

Benzene exceeded the 1 µg/L standard in well 087-11 during the April and November sampling events and in 088-109 during the November sampling event. The highest detection of benzene was 2 µg/L during the November event in well 088-109. Chloroethane exceeded the 5 µg/L standard in well 088-109 during all four sampling events. The maximum chloroethane concentration was 74 µg/L detected in well 088-109 during the January sampling event, which is well below the historic high of 560 ug/L detected in this well in 1998. Figure 5 shows VOC concentration spikes in wells 087-11, 087-23, 087-27, 088-109 and 088-110, approximately every two years. Even with these spikes, the VOC concentrations are generally stable to decreasing over the last 16 years.

2.2.1.2 Water Chemistry Parameters

Groundwater samples near the Current Landfill were analyzed semi-annually for ammonia, total Kjeldahl nitrogen (TKN), cyanide, sulfate, nitrite, nitrate, total nitrogen, chloride, alkalinity, total dissolved solids (TDS or residue, nonfilterable), and total suspended solids (TSS or residue, filterable) during 2013 (Table 1). The results are provided in Table 3. Elevated levels of these parameters can be indicative of the presence of landfill leachate. During 2013, ammonia was the only water chemistry parameter detected above standards.

Ammonia was detected above the standard of 2 milligrams per liter (mg/L), with exceedances in three downgradient wells (087-11, 087-27, and 088-109), as shown in Table 3. The highest concentration of 4.61 mg/L was reported for well 088-109 in November. The levels of ammonia detected are consistent with historic data.

Chloride was not detected above the standard of 250 mg/L in any wells in 2013. Well 087-27 had the highest concentration of chloride at 54.3 mg/L in November. Figure 6 plots these trends. The trends for downgradient wells show the low and stable nature of chloride concentrations in the vicinity of the Current Landfill.

Alkalinity, in the form of bicarbonate, is the concentration of anions available to neutralize acid, and is often used as an indicator of leachate contamination. The alkalinity in background well 087-09 ranged from 12.1 to 30.1 mg/L during 2013. The highest alkalinity concentration during 2013 was detected in downgradient, shallow Upper Glacial aquifer well 087-11, at 164 mg/L in November. There is no groundwater standard for alkalinity. The historical concentration trends plotted in Figure 6 show overall stable to decreasing levels of alkalinity.

During 2013, all sulfate concentrations remained below the groundwater standard of 250 mg/L. The highest sulfate value reported for 2013 was detected in the November sample from background monitoring well 087-09 at a concentration of 19.5 mg/L. This is consistent with historic background levels at the Current Landfill.

TDS and TSS results were similar to those from previous years. TDS and TSS concentrations in background well 087-09 ranged from 103 mg/L to 113 mg/L, and 1.26 mg/L to 12.8 mg/L, respectively. The maximum concentrations observed in downgradient wells were 253 mg/L and 46.2 mg/L of TDS and TSS, respectively.

No water chemistry parameters have exceeded groundwater standards in downgradient wells 087-24, 088-22, and 088-23, since 1998. These wells are all screened in the mid to deep-Upper Glacial aquifer to monitor the vertical extent of contamination from the Current Landfill. A comparison of downgradient and background wells shows that leachate continues to be generated from the Current Landfill, albeit at low concentrations. Decreasing to stable trends in concentrations of contaminants indicate that the capping continues to effectively reduce the generation and migration of leachate.

2.2.1.3 Metals

Historically, iron is detected consistently above groundwater standards in the majority of wells surrounding the landfill. Precipitated iron from the BNL Water Treatment Plant was disposed of at the Current Landfill during past operations. Concentrations in upgradient well 87-09 are still lower than in several downgradient wells, suggesting continued leachate migration from the landfill.

During 2013, aluminum, antimony, chromium, iron, manganese, and sodium in the background well, and aluminum, arsenic, iron, manganese, and sodium in several downgradient wells were detected above their respective groundwater standards (Table 4).

Aluminum was reported above the standard of 200 µg/L in background well 087-09 during the November sampling event. The concentration of aluminum in well 087-09 was 217 µg/L. Aluminum was also reported above the standard in downgradient well 087-27 during June at a concentration of 629 µg/L but declined to 98.7 µg/L in November. All other aluminum concentrations were below the standard.

Arsenic was reported at slightly above the standard of 10 µg/L in wells 087-23 at a concentration of 10.7 µg/L. Arsenic was reported at the standard of 10 µg/L in well 088-110. Arsenic detections have historically been observed at similar levels in Current Landfill wells.

Iron was reported above the standard of 300 µg/L in all wells except 087-24, 087-26, and 088-21. The background concentrations ranged up to 3,650 µg/L while downgradient concentrations ranged up to 68,100 µg/L (well 087-11). Iron trend graphs are plotted on Figure 7.

Manganese ranged from 20.3 µg/L to 302 µg/L in background well 087-09, and up to 5,410 µg/L in the downgradient wells.

Background sodium levels ranged up to 28,500 µg/L; whereas downgradient levels reached a high of 40,100 µg/L.

Chromium was detected above the standards of 50 µg/L in background well 087-09. Chromium in well 087-09 was detected at concentrations up to 399 µg/L. However, chromium was not detected above standard in any of the downgradient wells.

2.2.1.4 Radionuclides

No radionuclides were detected above groundwater standards during 2013 (Table 5). Tritium was the only radionuclide detected during 2013. Tritium was detected significantly below the groundwater standard of 20,000 pCi/L with a maximum value of 1,190 pCi/L in well 088-109 (Figure 8). Tritium and strontium-90 concentrations have not exceeded groundwater standards in any wells since 1998.

2.2.2 Former Landfill

Based on changes recommended in the *2012 Environmental Monitoring Report, Current and Former Landfill Areas*, starting in the third quarter of 2013, all wells except for 106-02 were scheduled to be sampled every two years. Therefore, only well 106-02 was sampled for nonradiological parameters. Well 106-02 was also sampled once for gamma, strontium-90, and tritium. Wells 106-20, 106-21, 106-43, 106-44, 106-45 and 106-64 were sampled for strontium-90 in April, prior to the requirement for sampling being dropped.

2.2.2.1 VOCs

There were no detections of VOCs above groundwater standards in well 106-02 (Table 6). The only VOC detected was chloroform. Chloroform was detected at a concentration of 0.57 µg/L. This

concentration is significantly below the standard of 7 µg/L. The trend of VOC results for well 106-02 is shown on Figure 9.

2.2.2.2 Water Chemistry Parameters

Groundwater sample from monitoring well 106-02 in the Former Landfill Area was analyzed for sulfate, nitrite, nitrate, total nitrogen, chloride, alkalinity, TDS and TSS. During 2013, none of the water chemistry parameters exceeded applicable groundwater standards (Table 7). A trend of the alkalinity and chloride results is shown on Figure 10.

2.2.2.3 Metals

The sampling results are summarized in Table 8, and concentration trend plot for iron in well 106-02 is shown on Figure 11. All metal detections were below groundwater standards during 2013 except for iron in well 106-02. The iron result for well 106-02 was above the groundwater standard of 300 µg/L. Since December 2008, iron has shown an increasing trend in well 106-02. However, iron is the only parameter in the well to have an increasing trend. All other metals are stable at historic background levels. In an effort to find the source of iron, the pump was pulled and examined from well 106-02. It was determined that the pump was approximately 14 years old. This pump was replaced with a new pump. The iron concentration in this well decreased from the historic high concentration of 2,190 µg/L in 2012 to 606 µg/L in 2013, although it is still above the standard.

2.2.2.4 Pesticides/PCBs

There were no detections of pesticides or polychlorinated biphenyls (PCBs) during 2013. The last detection of pesticides was in July 2002 and the last PCB was detected in December 2008. The sampling results are summarized in Table 9.

2.2.2.5 Radionuclides

Tritium was not detected in well 106-02 during 2013. Strontium-90 was detected in three wells in 2013 below the groundwater standard of 8 pCi/L. Detections ranged from 1.5 pCi/L in well 106-45 to 3 pCi/L in well 106-44. Strontium-90 has not been detected above the standard of 8 pCi/L in Former Landfill monitoring wells since May 2001. The 2013 sampling results are summarized in Table 10, and concentration trend plots for strontium-90 are shown on Figure 12. Gross beta activity was detected in well 106-02, at concentrations up to 1.84 pCi/L. This low result is not consistent with historic data and is most likely false a positive.

3.0 WOODED WETLAND MONITORING

Sampling at the Wooded Wetland is performed as part of the compliance monitoring for the Current Landfill. Prior to the capping of the Current Landfill, leachate was periodically observed in the wetland. The monitoring is focused on metal concentrations in the sediment and surface water to evaluate potential risks to the local tiger salamander population. Samples are collected every two years. Samples were last collected in 2012 and are scheduled for collection again in 2014.

4.0 SOIL-GAS MONITORING

4.1 Soil-gas Monitoring Networks

Soil-gas readings were collected from wells surrounding the Current Landfill in March, June, September, and November 2013 and from the Former Landfill in June, and November 2013. Methane, lower explosive limit (LEL), and hydrogen sulfide were measured using a Landtec GA-90. The LEL for methane is 5.3% and the upper explosive limit (UEL) is 15%.

4.1.1 Current Landfill

Along the perimeter of the Current Landfill, 58 points were sampled for soil-gas, which includes four outpost soil-gas well clusters, GSGM-1 to GSGM-4, located along the south side of Brookhaven Avenue. The sampling points include 12 soil-gas well clusters consisting of three sampling intervals per cluster, and 11 soil-gas well couplets consisting of two sampling intervals per couplet. Table 11 describes each soil-gas well located adjacent to the landfill. Their locations are illustrated on Figure 13.

4.1.2 Former Landfill Area

Twenty-four sampling points were monitored for the Former Landfill Area. These points include 12 well couplets consisting of two sampling points per couplet. Details of each soil-gas well are given in Table 11 and their locations shown in Figure 14.

4.1.3 Sampling Frequency

Soil-gas was monitored for each landfill in the following months.

Sampling Event	Current Landfill	Former Landfill
Round 1	March 2013	June 2013
Round 2	June 2013	November 2013
Round 3	September 2013	None
Round 4	November 2013	None

4.2 Results of Soil-Gas Monitoring

Action levels for soil-gas are specified in 6 NYCRR Part 360-2.17(f) in terms of percent LEL, which is primarily related to the amount of methane present. This discussion focuses primarily on the methane levels detected during monitoring. Hydrogen sulfide is monitored, but has no regulatory action level. 6 NYCRR Part 360-2.17(f) specifies that active measures to control decomposition gases are required when the concentration of methane or other explosive gases exceeds 25 percent of the LEL (or 1.3% methane) in facility structures, or 100 percent (%) of the LEL (or 5.3% methane) at the site boundary.

4.2.1 Current Landfill

A total of 23 soil-gas monitoring well clusters are positioned around the Current Landfill (Figure 13) and were sampled quarterly during 2013. Potential receptors, or areas where methane can accumulate in the vicinity of the Current Landfill, include the National Weather Service office building located 480 feet north northwest of the Current Landfill on the north side of Brookhaven Avenue. The four outpost soil-gas locations, GSGM-1 to GSGM-4, located along the south side of Brookhaven Avenue, are used to monitor the northern extent of the migration of landfill gas. Should methane extend to the south side of Brookhaven Avenue at concentrations exceeding 25 percent of the LEL (or 1.3% methane), active measures may be required to control its migration.

The results of the soil-gas monitoring for 2013 are summarized in Table 12. Appendix A contains the field notes recorded during the sampling events. Instrument measurements show that methane continues to be generated in several areas of the landfill. The percent of the LEL is elevated along the western side and the southeast boundary of the Current Landfill. In addition, one point, SGM-19, along the northern side of the Current Landfill had elevated LEL readings. The elevated levels in these areas have remained stable since 1996 when monitoring began and the current gas venting system appears to be controlling gas accumulation. These data are consistent with previous years (see Appendix C).

Outpost wells, GSGM-1 to GSGM-4, located along the south side of Brookhaven Avenue showed no methane during 2013, indicating that the methane accumulation and migration does not extend to this area. Should methane at concentrations exceeding 25 percent of the LEL (or 1.3% methane),

extend to these outpost wells on the south side of Brookhaven Avenue, active measures may be required to control its migration.

Hydrogen sulfide is a product of anaerobic decay in landfills and can produce an odor like rotten eggs. It is a nuisance, but rarely a toxicity problem. For reference, the National Institute of Occupational Safety and Health sets an exposure limit of 10 parts per million (ppm) hydrogen sulfide in the breathing zone for an 8-hour period.

Hydrogen sulfide measurements collected from the soil-gas monitoring wells ranged from 0 ppm to 29 ppm. Well SGMW-2B located near the north-west section of the landfill, had the highest hydrogen sulfide concentration, which was above the 10 ppm exposure limit. However, the measurement was taken from a vapor point screened 2.5 - 7.5 ft below the surface and not from the ambient breathing zone. Like methane, receptors to hydrogen sulfide are considered to be in areas such as basements where the gas can accumulate. Based upon the readings obtained from the outpost soil-gas wells along the south side of Brookhaven Avenue (GSGM-1 to GSGM-4), there is no evidence that hydrogen sulfide is migrating toward the National Weather Service building.

4.2.1.1 Trend in Soil-Gas Data

Appendix C contains the results of methane monitoring for the Current Landfill from 1996 through 2012. Generally the levels of methane and hydrogen sulfide in the wells along the northwest landfill boundary and southeast corner have remained elevated but stable.

4.2.2 Former Landfill Area

A total of 12 soil-gas monitoring well clusters are positioned around the Former Landfill Area. During 2013, the well clusters were monitored two times. The only existing operating facility within the immediate vicinity of the Former Landfill Area is Building 670, located approximately 650 feet to the southeast. This building houses the Chemical Holes Sr-90 groundwater treatment system. Because this facility does not have a basement, there is minimal potential for hazardous levels of landfill gases to accumulate in this structure.

Based upon the two sampling events, there was no methane or hydrogen sulfide detected. Table 13 details the 2013 soil-gas monitoring results for the Former Landfill Area. Appendix A contains the field notes recorded during the sampling events.

4.2.2.1 Trends in Soil-Gas Data

The results of monitoring the Former Landfill Area continue to be consistent with the initial survey of the methane gas migration conducted in 1995, during which concentrations between 0% to 0.1% methane were recorded. Methane has not been detected since 2005. Hydrogen sulfide gas also was measured during this survey. The hydrogen sulfide results are consistent with historic values. Appendix C includes the results of methane monitoring in the Former Landfill Area for 1996 through 2012.

Presently, there is no measured pathway for methane gas migration, nor do the concentrations represent an explosive hazard, as shown by the nondetect readings on the LEL meter. The age of the Former Landfill Area and the types of materials disposed of would likely result in low levels or the absence of methane or hydrogen sulfide.

5.0 MAINTENANCE AND REPAIR

Monthly site inspections were performed by BNL at the Current and Former Landfill areas to monitor the structural and/or operational status of the landfill cap, gas vents, drainage structure, fences and environmental monitoring system (groundwater wells, soil-gas wells) in accordance with the O&M Manuals. A copy of the inspection reports is included in Appendix B. Maintenance and repair work completed or required by BNL is discussed below.

5.1 Landfill Cap and Gas Vents

To prevent ruts in the landfills caused by the weight of the lawn mowers during periods of above normal precipitation, the cutting of the grass is only conducted when optimal soil conditions are evident. The grass was cut during May for the Current Landfill and October for the Former Landfill. Small cracks in the asphalt road next to the Current Landfill were noted on the inspection logs. The cracks do not impact the structural integrity of the road; however there was vegetation growing in some of the cracks. Also, small pine seedlings and weeds were noted growing around the edge of both landfills. Small animal burrows were filled in at the Former Landfill. Vegetation removal is scheduled for Spring 2014.

5.2 Drainage Structures

The drainage structures at both the Current and Former Landfill areas were maintained. They were observed to be operational and structurally sound during the site inspections. Small pine seedlings and weeds were noted growing in the drainage channels of both landfills during various times of the year. Vegetation removal is scheduled for Spring 2014.

5.3 Environmental Monitoring System

The monitoring wells and soil-gas monitoring wells associated with the landfills required no significant maintenance. Access to the soil-gas monitoring wells was cleared via mechanical weed whacking prior to each sampling event.

5.4 Related Structures

During the 2012 inspections, it was noted that the railing on the stairs at the Former Landfill was loose. This was repaired during the early Spring 2013. No other structures required maintenance during 2013.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Groundwater Monitoring

6.1.1 Conclusions for the Current Landfill

- Benzene was detected in downgradient wells 087-11, and 088-109 at concentrations above the groundwater standard with a maximum concentration of 2 µg/L. Chloroethane detected in well 088-109 was the only other VOC detected above groundwater standards. During 2013, chloroethane concentrations ranged up to 74 µg/L indicating that VOCs continue to emanate from the landfill. However, an analysis of the trends of VOCs indicated the concentrations are stable to decreasing.

- Concentrations of landfill water chemistry parameters and metals such as ammonia and iron in several downgradient wells were above the upgradient values. This suggests that leachate continues to emanate from the landfill, but at low levels.
- Tritium continues to be detected in well 088-109 downgradient of the Current Landfill, but at concentrations well below groundwater standards. This is consistent with historical observations. There have been no detections of radionuclides above the drinking water standards since 1998.
- Although low levels of contaminants continue to be detected, the landfill controls are effective at reducing the impact of the Current Landfill on groundwater quality as evidenced by the improving quality of groundwater downgradient of the landfill.

6.1.2 Recommendations for the Current Landfill

The groundwater monitoring well network is adequate at this time. No changes to the monitoring frequency are needed.

6.1.3 Conclusions for the Former Landfill Area

- The Former Landfill Area is not a source of VOC contamination. No VOCs were detected above groundwater standards in 2013. VOC concentrations in the downgradient wells were at or near the minimum detectable limits.
- Landfill-leachate indicators were detected at concentrations approximating those of historic background monitoring well results, indicating that leachate generation is minimal to nonexistent.
- Iron continues to be the only metal detected above groundwater standards. The iron concentration in well 106-02 decreased from an historic high of 2,190 µg/L in 2012 to 606 µg/L in 2013.
- The Former Landfill Area no longer appears to be a source of strontium-90 contamination. Only trace amounts of strontium-90 were detected near the Former Landfill Area with a maximum concentration of 3 pCi/L in well 106-44. The strontium-90 detected in wells 106-44, 106-45 and 106-64 has been decreasing with time and has been below groundwater standards since 2001.
- The implemented landfill controls are effective, as evidenced by the improved quality of groundwater downgradient of the landfill.

6.1.4 Recommendations for the Former Landfill Area

The groundwater monitoring well network is adequate at this time. No changes to the monitoring frequency are needed.

6.2 Soil-Gas Monitoring

6.2.1 Conclusions for the Current Landfill

Methane and hydrogen sulfide levels in wells located along the west landfill boundary and southeast corner have remained stable and have not shown any significant increases or decreases over time. No gas migration has been observed this year at the outpost soil-gas wells along Brookhaven Avenue.

6.2.2 Recommendations for the Current Landfill

The soil-gas monitoring program is adequate at this time. Methane gas is still being produced and leachate is continuing to discharge from the landfill.

6.2.3 Conclusions for the Former Landfill Area

Methane and hydrogen sulfide levels at the Former Landfill Area continue to show no landfill gas. Methane has not been detected near or above standards since monitoring began in 1996.

6.2.4 Recommendations for the Former Landfill Area

Since methane has not been detected since 2005, it is recommended that the soil-gas monitoring for the Former Landfill Areas be reduced from semi-annual to annual. Monitoring will be conducted during the summer.

6.3 Maintenance and Repair

Maintenance of the landfill caps will continue in accordance with the O&M requirements.

6.3.1 Current Landfill

Monthly inspections and maintenance will continue in accordance with the O&M requirements. To prevent ruts in the landfills caused by the weight of the lawn mowers and moist surface conditions, the cutting of the grass is only conducted when optimal soil conditions are evident. Access to the soil-gas monitoring wells are cleared via mechanical weed whacking.

6.3.2 Former Landfill Area

Monthly inspections and maintenance will continue in accordance with the O&M requirements. The cutting of the grass is only conducted when optimal soil conditions are evident to prevent ruts in the landfills caused by the weight of the lawn mowers during periods of above normal precipitation. Access to the soil-gas monitoring wells are cleared via mechanical weed whacking.

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Table 1. Analytical Requirements for Groundwater Samples.

Well ID	Project 1	Decision Subunit	EPA 524.2 VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sufates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Cyanide	EPA 900 Gross Alpha/Beta	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr 90	Blind Duplicate/MS/MSD	Frequency (events/year)
087-09	CLF	Background	Xb			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb						2f
087-11	CLF	Downgradient	Xb			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb						2f
087-23	CLF	Downgradient	Xb			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb		Xa	Xa	Xa		2f
087-24	CLF	Downgradient	Xa			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb						2f
087-26	CLF	Downgradient	Xb			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb						2f
087-27	CLF	Downgradient	Xb			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb		Xa	Xa	Xa		2f
088-109	CLF	Downgradient	X			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb		Xa	Xa	Xa	X	4
088-110	CLF	Downgradient	Xb			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb						2f
088-21	CLF	Downgradient	Xb			Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb	Xb		Xa	Xa	Xa		2f
088-22	CLF	Downgradient	Xa			Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa						1a
088-23	CLF	Downgradient	Xa			Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa						1a
086-42	FLF	Background	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	X	Xa		1c
086-72	FLF	Background	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa		1c
087-22	FLF	Background	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa		1c
097-17	FLF	Downgradient	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa		1c
097-277	FLF	Downgradient	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa		1c
097-64	FLF	Downgradient	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa		1c
106-02	FLF	Downgradient	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa		1a
106-20	FLF	Downgradient																Xb		1c
106-21	FLF	Downgradient																Xb		1c
106-30	FLF	Downgradient	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	X	1c
106-43	FLF	Downgradient																Xb		1c
106-44	FLF	Downgradient																Xb		1c
106-45	FLF	Downgradient																Xb		1c
106-64	FLF	Downgradient																Xb		1c

NOTES:

a: Collect in 4th Quarter only.

b: Collect in 2nd and 4th Quarters.

c: Sample in even numbered years. Next sampling in CY2014.

Table 2. Current Landfill - Summary of 2013 VOC Data

Analtye	Groundwater Standards (ug/L)	087-09 4/23/2013 (ug/L)		087-09 11/25/2013 (ug/L)		087-11 4/23/2013 (ug/L)		087-11 11/26/2013 (ug/L)		087-23 4/23/2013 (ug/L)		087-23 11/26/2013 (ug/L)		087-24 4/23/2013 (ug/L)	
1,1,1,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.19	J	0.5	U
1,1-Dichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	1	0.5	U	0.5	U	**1.95**		**1.28**		0.69		0.86		0.5	U
Benzene, 1,2,4-trimethyl	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	5	0.5	U	0.5	U	0.66		0.25	J	0.55		0.78		0.5	U
Chlorobromomethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	5	0.5	U	0.5	U	3.95		2.11		2.09		2.38		0.5	U
Chloroform	7	0.5	U	0.22	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.05	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.36	J	0.5	U	0.5	U
o-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	3	0.5	U	0.5	U	0.31	J	0.5	U	0.28	J	0.5	U	0.5	U
sec-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	2	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
524.2 TVOC	--	0		0.22		6.87		3.64		3.97		4.21		0	

J - Estimated value.

U - Not detected.

D - Dilution result.

Analtye	Groundwater Standards (ug/L)	087-24 11/26/2013 (ug/L)		087-26 6/6/2013 (ug/L)		087-26 11/25/2013 (ug/L)		087-27 6/6/2013 (ug/L)		087-27 11/25/2013 (ug/L)		088-109 1/17/2013 (ug/L)		088-109 4/23/2013 (ug/L)	
1,1,1,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	3.8		4.15	
1,1-Dichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	1	0.5	U	0.5	U	0.5	U	0.61		0.64		0.92		2.5	U
Benzene, 1,2,4-trimethyl	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	5	0.5	U	0.5	U	0.5	U	0.48	J	0.41	J	0.5	U	0.5	U
Chlorobromomethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	5	0.5	U	0.5	U	0.5	U	0.86		0.81		**74**	D	**68.1**	
Chloroform	7	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.05	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	5	1	U	1	U	1	U	1	U	1	U	0.5	U	1	U
Methyl bromide	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	2	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
524.2 TVOC	--	0		0		0		1.95		1.86		78.72		72.25	

J - Estimated value.

U - Not detected.

D - Dilution result.

Table 2. Current Landfill - Summary of 2013 VOC Data

Analtye	Groundwater Standards (ug/L)	088-109 9/17/2013 (ug/L)		088-109 11/25/2013 (ug/L)		088-110 4/23/2013 (ug/L)		088-110 11/25/2013 (ug/L)		088-21 4/23/2013 (ug/L)		088-21 11/26/2013 (ug/L)		088-22 11/26/2013 (ug/L)	
1,1,1,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	5	1.63		1.22		0.26	J	0.35	J	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	1	0.64		**2**		0.42	J	0.5		0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	--	0.5	U	0.17	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	5	**8.65**		**16**		2.36		1.98		0.5	U	0.5	U	0.5	U
Chloroform	7	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.05	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	10	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	3	0.5	U	0.5	U	0.19	J	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	5	0.5	U	0.5	U	0.17	J	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	2	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
524.2 TVOC	--	10.92		19.39		3.4		2.83		0		0		0	

J - Estimated value.

U - Not detected.

D - Dilution result.

Table 2. Current Landfill - Summary of 2013 VOC Data

Analtye	Groundwater Standards (ug/L)	088-23 11/26/2013 (ug/L)	
1,1,1,2-Tetrachloroethane	5	0.5	U
1,1,1-Trichloroethane	5	0.5	U
1,1,2,2-Tetrachloroethane	5	0.5	U
1,1,2-Trichloroethane	1	0.5	U
1,1-Dichloroethane	5	0.5	U
1,1-Dichloroethylene	5	0.5	U
1,1-Dichloropropene	5	0.5	U
1,2,3-Trichlorobenzene	5	0.5	U
1,2,3-Trichloropropane	0.04	0.5	U
1,2,4-Trichlorobenzene	5	0.5	U
1,2-Dichloroethane	0.6	0.5	U
1,2-Dichloropropane	1	0.5	U
1,3-Dichloropropane	5	0.5	U
2,2-Dichloropropane	5	0.5	U
Benzene	1	0.5	U
Benzene, 1,2,4-trimethyl	5	0.5	U
Benzene, 1,3,5-trimethyl-	5	0.5	U
Benzene, 1-methylethyl-	--	0.5	U
Bromobenzene	5	0.5	U
Bromodichloromethane	50	0.5	U
Bromoform	50	0.5	U
Carbon tetrachloride	5	0.5	U
Chlorobenzene	5	0.5	U
Chlorobromomethane	5	0.5	U
Chloroethane	5	0.5	U
Chloroform	7	0.5	U
cis-1,2-Dichloroethylene	5	0.5	U
cis-1,3-Dichloropropene	0.4	0.5	U
Cymene	5	0.5	U
DBCP	0.04	0.5	U
Dibromochloromethane	5	0.5	U
Dibromomethane	5	0.5	U
Dichlorodifluoromethane	5	0.5	U
EDB	0.05	0.5	U
Ethene, 1,2-dichloro-, (E)-	5	0.5	U
Ethylbenzene	5	0.5	U
Hexachlorobutadiene	0.5	0.5	U
m-Dichlorobenzene	3	0.5	U
m/p xylene	5	1	U
Methyl bromide	5	0.5	U
Methyl chloride	5	0.5	U
Methyl tert-butyl ether	10	0.5	U
Methylene chloride	5	0.5	U
n-Butylbenzene	5	0.5	U
n-Propylbenzene	5	0.5	U
Naphthalene	10	0.5	U
o-Chlorotoluene	5	0.5	U
o-Dichlorobenzene	3	0.5	U
o-Xylene	5	0.5	U
p-Chlorotoluene	5	0.5	U
p-Dichlorobenzene	3	0.5	U
sec-Butylbenzene	5	0.5	U
Styrene	5	0.5	U
tert-Butylbenzene	5	0.5	U
Tetrachloroethylene	5	0.5	U
Toluene	5	0.5	U
trans-1,3-Dichloropropene	0.4	0.5	U
Trichloroethylene	5	0.5	U
Trichlorofluoromethane	5	0.5	U
Vinyl chloride	2	0.5	U
524.2 TVOC	--	0	

J - Estimated value.
U - Not detected.
D - Dilution result.

Table 3. Current Landfill - Summary of 2013 Water Chemistry Data.

Analtye	Groundwater Standards (mg/L)	087-09 4/23/2013 (mg/L)		087-09 11/25/2013 (mg/L)		087-11 4/23/2013 (mg/L)		087-11 11/26/2013 (mg/L)		087-23 4/23/2013 (mg/L)		087-23 11/26/2013 (mg/L)		087-24 4/23/2013 (mg/L)	
Alkalinity (as CaCO3)	--	30.1		12.1		164		115		102		96.3		25.4	J
Ammonia (as N)	2	0.151	U	0.246		**2.84**		**2.18**	J	0.506		0.661	J	0.0553	U
Chloride	250	24.5	J	50.2		31.9	J	36	J	16.7	J	16.3	J	28.6	J
Cyanide	0.2	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U
Nitrate (as N)	10	0.365		0.456		0.033	U	0.33	UJH	0.033	U	0.033	U	0.482	
Nitrite (as N)	1	0.038	U	0.038	U	0.038	U	0.038	UJH	0.038	U	0.038	UJH	0.038	U
Nitrite + Nitrate-N	10	0.277	J	0.495		0.017	UJ	0.017	U	0.017	UJ	0.017	U	0.427	J
Nitrogen	--	1.21		0.839		3.33		2.04		0.562		0.769		0.427	
Sulfate	250	15.1		19.5		15.4		12.2	J	5.44		10.6	J	11.4	
TDS	--	103	J	113		250	J	209	J	127	J	139	J	90	J
Total Kjeldahl Nitrogen	--	0.937		0.344		3.32		2.03		0.546		0.758		0.033	U
TSS	--	12.8		1.26	J	16.6		18.6		7.27		6.56		0.577	U

J - Estimated value.

U - Not detected.

H - Holding time exceeded.

Table 3. Current Landfill - Summary of 2013 Water Chemistry Data.

Analtye	Groundwater Standards (mg/L)	087-24 11/26/2013 (mg/L)		087-26 6/6/2013 (mg/L)		087-26 11/25/2013 (mg/L)		087-27 6/6/2013 (mg/L)		087-27 11/25/2013 (mg/L)		088-109 4/23/2013 (mg/L)		088-109 11/25/2013 (mg/L)	
Alkalinity (as CaCO3)	--	20.5		25.7		22.6		87.5		119		108		147	
Ammonia (as N)	2	0.135	UJ	0.0645		0.25		**2.23**		**2.38**		1.5		**4.61**	
Chloride	250	22.5	J	14.7	J	25.1		48.1	J	54.3		16.3	J	26.8	
Cyanide	0.2	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U
Nitrate (as N)	10	0.545		0.417		0.526		0.033	U	0.033	U	0.033	U	0.033	U
Nitrite (as N)	1	0.038	UJH	0.038	U	0.038	U	0.038	U	0.038	U	0.038	U	0.038	U
Nitrite + Nitrate-N	10	0.553		0.461		0.517		0.017	U	0.017	U	0.0177	J	0.019	J
Nitrogen	--	0.689		0.677		0.798		2.58		2.27		1.55		4.63	
Sulfate	250	11.7	J	13.2	J	13.6		15.1	J	16.4		9.28		10.8	
TDS	--	64.3	J	71.4	J	64.3		210	J	230		177	J	219	
Total Kjeldahl Nitrogen	--	0.136		0.216	U	0.281		2.57		2.26		1.53		4.61	
TSS	--	0.567	U	0.593	U	0.57	U	46.2		13.3		7		9.7	

J - Estimated value.

U - Not detected.

H - Holding time exceeded.

Table 3. Current Landfill - Summary of 2013 Water Chemistry Data.

Analtye	Groundwater Standards (mg/L)	088-110 4/23/2013 (mg/L)		088-110 11/25/2013 (mg/L)		088-21 4/23/2013 (mg/L)		088-21 11/26/2013 (mg/L)		088-22 11/26/2013 (mg/L)		088-23 11/26/2013 (mg/L)	
Alkalinity (as CaCO3)	--	123		112		28.5		10.5		13.7		0.725	U
Ammonia (as N)	2	1.87	HhJ	1.56		0.0425	U	0.148	UJ	0.138	UJ	0.279	J
Chloride	250	41.9	J	45.5		38.7	J	43.6	J	15.7	J	16.8	J
Cyanide	0.2	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U	0.00167	U
Nitrate (as N)	10	0.033	U	0.0339	J	0.364		0.281		0.519		0.0477	J
Nitrite (as N)	1	0.038	U	0.038	U	0.038	U	0	JH	0.038	UJH	0.038	UJH
Nitrite + Nitrate-N	10	0.017	UJ	0.017	U	0.315	J	0.27		0.51		0.0189	J
Nitrogen	--	1.59		1.63		0.468		0.439		0.657		0.303	
Sulfate	250	13.1		18.8		5.4		6.96	J	11.6	J	13	J
TDS	--	253	J	209		109	J	92.9	J	67.1	J	62.9	J
Total Kjeldahl Nitrogen	--	1.58		1.62		0.153		0.169		0.147		0.284	
TSS	--	21.1		14.9		0.978	J	0.599	U	1.65	J	2.43	J

J - Estimated value.

U - Not detected.

H - Holding time exceeded.

Table 4. Current Landfill - Summary of 2013 Metals Data.

Analtye	Groundwater Standards (ug/L)	087-09 4/23/2013 (ug/L)		087-09 11/25/2013 (ug/L)		087-11 4/23/2013 (ug/L)		087-11 11/26/2013 (ug/L)		087-23 4/23/2013 (ug/L)		087-23 11/26/2013 (ug/L)		087-24 4/23/2013 (ug/L)		087-24 11/26/2013 (ug/L)		087-26 6/6/2013 (ug/L)	
Aluminum	200	163	B	**217**		74.5	B	185	B	68	U	79.9	B	68	U	68	U	68	U
Antimony	3	3.5	U	**4.63**	B	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U
Arsenic	10	2.17	B	1.7	U	4.08	B	7.69		**10.4**		**10.7**		1.7	U	1.7	U	1.7	U
Barium	1000	31.7	B	27.2	B	27.2	B	20.1	B	26.7	B	29.8	B	11.9	B	8.1	B	23.1	B
Beryllium	3	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cadmium	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Calcium	--	9980		9350		19300		15700		5440		6610		5560		4270	B	5110	
Chromium	50	**80.1**		**399**		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cobalt	--	2.28	B	1.19	B	2.36	B	1	U	5.29	B	6.15	B	1.91	B	1.03	B	1.67	B
Copper	200	8.04	B	8.59	B	4.03	B	3	U	3	U	3	U	3	U	3	U	3.64	B
Iron	300	**3650**	J	**1410**		**68100**	J	**59200**		**46700**	J	**48000**		30	UJ	55.2	B	83.1	B
Lead	25	0.572	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Magnesium	35000	3460	B	3890	B	3260	B	3350	B	1660	B	2580	B	3990	B	2930	B	3530	B
Manganese	300	**302**	J	20.3		**1600**	J	**1920**		**5230**	J	**5410**		2	UJ	2.47	B	2	U
Mercury	0.7	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U
Nickel	100	13.1	B	11.5	B	1.5	U	1.77	B	1.5	U	2.51	B	1.5	U	1.55	B	1.5	U
Potassium	--	1590	B	743	B	3150	B	2350	B	1150	B	1130	B	1490	B	1230	B	1370	B
Selenium	10	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Silver	50	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sodium	20000	**21000**		**28500**		**26500**		**23900**		10700		6960		**21800**		19000		16300	
Thallium	0.5	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U
Vanadium	--	1	U	2.35	B	1	U	3.19	B	1	U	1	U	1	U	1	U	1	U
Zinc	2000	10.1	B	17.8	B	10.3	B	39.5		4.48	B	6.94	B	3.3	U	3.3	U	3.3	U

J - Estimated value.

U - Not detected.

B - Value below contract limit.

Table 4. Current Landfill - Summary of 2013 Metals Data.

Analtye	Groundwater Standards (ug/L)	087-26 11/25/2013 (ug/L)		087-27 6/6/2013 (ug/L)		087-27 11/25/2013 (ug/L)		088-109 4/23/2013 (ug/L)		088-109 11/25/2013 (ug/L)		088-110 4/23/2013 (ug/L)		088-110 11/25/2013 (ug/L)		088-21 4/23/2013 (ug/L)		088-21 11/26/2013 (ug/L)	
Aluminum	200	68	U	**629**		98.7	B	68	U	68	U	68	U	68	U	68	U	73.6	B
Antimony	3	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U
Arsenic	10	1.7	U	9.25		8.65		4.45	B	8.18		7.92		**10**		1.7	U	1.7	U
Barium	1000	28.6	B	48	B	42.5	B	33.1	B	49.7	B	36.3	B	39.7	B	16	B	37.5	B
Beryllium	3	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cadmium	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Calcium	--	7630		20600		20300		24500		30400		22400		20200		4280	B	5210	
Chromium	50	1	U	1.97	B	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cobalt	--	1.76	B	3.4	B	2.9	B	1.36	B	1.85	B	6.16	B	3.67	B	1	U	1	U
Copper	200	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U
Iron	300	68.7	B	**44100**		**38800**		**33800**	J	**39700**		**58300**	J	**41900**		95.4	BJ	54.8	B
Lead	25	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Magnesium	35000	5140		5280		4330	B	5500		5220		6530		6180		2200	B	2620	B
Manganese	300	2	U	**1010**		**1020**		**1490**	J	**1150**		**2800**	J	**2580**		27	J	16.4	
Mercury	0.7	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U
Nickel	100	1.5	U	1.5	U	1.5	U	1.5	U	1.67	B	1.5	U	1.5	U	1.5	U	1.5	U
Potassium	--	1300	B	5170		4680	B	3690	B	7050		3780	B	3350	B	1480	B	1980	B
Selenium	10	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Silver	50	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1.03	B
Sodium	20000	15500		**34300**		**40100**		11200		18300		**25100**		**32000**		**32300**		**27400**	
Thallium	0.5	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U
Vanadium	--	1	U	2.2	B	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Zinc	2000	3.3	U	3.3	U	5.35	B	3.3	U	3.3	U	3.3	U	4.73	B	3.3	U	4.74	B

J - Estimated value.

U - Not detected.

B - Value below contract limit.

Table 4. Current Landfill - Summary of 2013 Metals Data.

Analtye	**Groundwater Standards (ug/L)**	**088-22 11/26/2013 (ug/L)**		**088-23 11/26/2013 (ug/L)**	
Aluminum	200	68	U	86.7	B
Antimony	3	3.5	U	3.5	U
Arsenic	10	1.7	U	2.01	B
Barium	1000	27.9	B	2.77	B
Beryllium	3	1	U	1	U
Cadmium	5	1	U	1	U
Calcium	--	6440		5470	
Chromium	50	1	U	1	U
Cobalt	--	1.98	B	1	U
Copper	200	3	U	3	U
Iron	300	**662**		**1370**	
Lead	25	0.5	U	0.5	U
Magnesium	35000	2700	B	1400	B
Manganese	300	108		**412**	
Mercury	0.7	0.067	U	0.067	U
Nickel	100	1.5	U	1.5	U
Potassium	--	1200	B	1250	B
Selenium	10	1.5	U	1.5	U
Silver	50	1	U	1.01	B
Sodium	20000	13200		14600	
Thallium	0.5	0.45	U	0.45	U
Vanadium	--	1	U	1	U
Zinc	2000	3.3	U	3.36	B

J - Estimated value.

U - Not detected.

B - Value below contract limit.

Table 5. Current Landfill - Summary of 2013 Radionuclide Data.

Analtye	Groundwater Standards pCi/L	087-23 11/26/2013 pCi/L				087-27 11/25/2013 pCi/L				088-109 11/25/2013 pCi/L				088-21 11/26/2013 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	4.88	U	19.2	12.1	-6.19	U	14.2	8.61	1.2	U	24.6	14	-2.68	U	24.2	13.5
Beryllium-7	40000	-2.45	U	32.1	18.3	0.239	U	28.5	16.3	0.587	U	35.1	18.9	0.357	U	30.6	17
Cesium-134	80	0.0664	U	3.21	1.75	0.877	U	3.32	1.71	0.705	U	4.63	2.5	0.413	U	3.47	2.12
Cesium-137	120	0.426	U	3.26	2.06	-1.49	U	3.41	2.1	-0.638	U	4.07	2.67	2.02	U	3.71	1.89
Co-60	200	0.0903	U	3.22	1.72	0.308	U	3.08	1.8	0.122	U	4.15	2.19	1.1	U	3.72	1.79
Cobalt-57	4000	0.687	U	2.91	1.68	0.443	U	2.66	1.46	0.0507	U	3.4	1.99	0.0958	U	2.65	1.51
Europium-152	841	0.597	U	9.72	5.41	2.12	U	9.18	5.08	-4.15	U	11.3	7.32	1.32	U	9.7	5.44
Europium-154	573	0.236	U	8.95	5.5	-0.827	U	8.65	4.64	-6.55	U	9.35	5.98	-1.04	U	9.02	5.02
Europium-155	4000	-4.37	U	11.9	7.16	4.38	U	11.1	6.35	0.739	U	14.2	8.26	-2.28	U	12.1	6.95
Manganese-54	2000	-0.411	U	2.62	1.44	-0.507	U	2.95	1.67	-0.0968	U	3.95	2.21	0.131	U	3.31	2.04
Sodium-22	400	0.134	U	3.18	1.95	-0.292	U	3.05	1.64	-2.31	U	3.3	2.11	-0.424	U	3.15	1.76
Strontium-90	8	0.252	UJ(-)B	0.797	0.463	0.578	U	0.784	0.477	-0.514	U	0.775	0.362	0.13	UJ(-)B	0.705	0.401
Tritium	20000	196	U	266	167	229	U	265	171	1190		266	273	11.1	U	266	139
Zinc-65	360	-3.3	U	6.87	4.83	-3.5	U	6.63	4.12	2.56	U	7.93	4.32	-0.708	U	7.14	3.98

J - Estimated value.

U - Not detected.

B - Detected in associated blank.

Table 6. Former Landfill - Summary of 2013 VOC Data.

Analtye	Groundwater Standards (ug/L)	106-02 11/25/2013 (ug/L)	
1,1,1,2-Tetrachloroethane	5	0.5	U
1,1,1-Trichloroethane	5	0.5	U
1,1,2,2-Tetrachloroethane	5	0.5	U
1,1,2-Trichloroethane	1	0.5	U
1,1-Dichloroethane	5	0.5	U
1,1-Dichloroethylene	5	0.5	U
1,1-Dichloropropene	5	0.5	U
1,2,3-Trichlorobenzene	5	0.5	U
1,2,3-Trichloropropane	0.04	0.5	U
1,2,4-Trichlorobenzene	5	0.5	U
1,2-Dichloroethane	0.6	0.5	U
1,2-Dichloropropane	1	0.5	U
1,3-Dichloropropane	5	0.5	U
2,2-Dichloropropane	5	0.5	U
Benzene	1	0.5	U
Benzene, 1,2,4-trimethyl	5	0.5	U
Benzene, 1,3,5-trimethyl-	5	0.5	U
Benzene, 1-methylethyl-	--	0.5	U
Bromobenzene	5	0.5	U
Bromodichloromethane	50	0.5	U
Bromoform	50	0.5	U
Carbon tetrachloride	5	0.5	U
Chlorobenzene	5	0.5	U
Chlorobromomethane	5	0.5	U
Chloroethane	5	0.5	U
Chloroform	7	0.57	
cis-1,2-Dichloroethylene	5	0.5	U
cis-1,3-Dichloropropene	0.4	0.5	U
Cymene	5	0.5	U
DBCP	0.04	0.5	U
Dibromochloromethane	5	0.5	U
Dibromomethane	5	0.5	U
Dichlorodifluoromethane	5	0.5	U
EDB	0.05	0.5	U
Ethene, 1,2-dichloro-, (E)-	5	0.5	U
Ethylbenzene	5	0.5	U
Hexachlorobutadiene	0.5	0.5	U
m-Dichlorobenzene	3	0.5	U
m/p xylene	5	1	U
Methyl bromide	5	0.5	U
Methyl chloride	5	0.5	U
Methyl tert-butyl ether	10	0.5	U
Methylene chloride	5	0.5	U
n-Butylbenzene	5	0.5	U
n-Propylbenzene	5	0.5	U
Naphthalene	10	0.5	U
o-Chlorotoluene	5	0.5	U
o-Dichlorobenzene	3	0.5	U
o-Xylene	5	0.5	U
p-Chlorotoluene	5	0.5	U
p-Dichlorobenzene	3	0.5	U
sec-Butylbenzene	5	0.5	U
Styrene	5	0.5	U
tert-Butylbenzene	5	0.5	U
Tetrachloroethylene	5	0.5	U
Toluene	5	0.5	U
trans-1,3-Dichloropropene	0.4	0.5	U
Trichloroethylene	5	0.5	U
Trichlorofluoromethane	5	0.5	U
Vinyl chloride	2	0.5	U
524.2 TVOC	--	0.57	

Table 7. Former Landfill - Summary of 2013 Water Chemistry Data.

Analtye	Groundwater Standards (mg/L)	106-02 11/25/2013 (mg/L)	
Alkalinity (as CaCO3)	--	0.725	U
Ammonia (as N)	2	0.402	
Chloride	250	23.7	
Cyanide	0.2	0.00167	U
Nitrate (as N)	10	0.733	
Nitrite (as N)	1	0.038	U
Nitrite + Nitrate-N	10	0.373	
Nitrogen	--	1.23	
Sulfate	250	42.3	
TDS	--	47.1	J
Total Kjeldahl Nitrogen	--	0.858	
TSS	--	10.8	

Table 8. Former Landfill - Summary of 2013 Metals Data.

Analtye	**Groundwater Standards (ug/L)**	**106-02 11/25/2013 (ug/L)**	
Aluminum	200	179	B
Antimony	3	3.5	U
Arsenic	10	1.7	U
Barium	1000	13.3	B
Beryllium	3	1	U
Cadmium	5	1	U
Calcium	--	7990	
Chromium	50	4.66	B
Cobalt	--	1	U
Copper	200	13.8	B
Iron	300	**606**	
Lead	25	7.53	
Magnesium	35000	1770	B
Manganese	300	24.5	
Mercury	0.7	0.067	U
Nickel	100	1.55	B
Potassium	--	2480	B
Selenium	10	1.5	U
Silver	50	1	U
Sodium	20000	6180	
Thallium	0.5	0.45	U
Vanadium	--	1	U
Zinc	2000	46.1	

J - Estimated value.

U - Not detected.

B - Value below contract limit.

Table 9. Former Landfill - Summary of 2013 Pesticide/PCB Data.

Analtye	**Groundwater Standards (ug/L)**	**106-02 11/25/2013 (ug/L)**	
4,4''-DDD	0.3	0.0037	U
4,4''-DDE	0.2	0.0037	U
4,4''-DDT	0.2	0.0037	U
Aldrin	0	0.00185	U
alpha-BHC	0.01	0.00185	U
Aroclor 1016	0.09	0.0463	U
Aroclor 1221	0.09	0.0463	U
Aroclor 1232	0.09	0.0463	U
Aroclor 1242	0.09	0.0463	U
Aroclor 1248	0.09	0.0463	U
Aroclor 1254	0.09	0.0463	U
Aroclor 1260	0.09	0.0463	U
beta-BHC	0.01	0.00185	U
Chlordane	0.05	0.0231	U
delta-BHC	0.04	0.00185	U
Dieldrin	0.004	0.0037	U
Endosulfan I	0.009	0.00185	U
Endosulfan II	--	0.0037	U
Endosulfan sulfate	--	0.0037	U
Endrin	0	0.0037	U
Endrin aldehyde	5	0.0037	U
Heptachlor	0.04	0.00185	U
Heptachlor epoxide	0.03	0.00185	U
Lindane	0.05	0.00185	U
Toxaphene	0.06	0.0463	U

Table 10. Former Landfill - Summary of 2013 Radionuclide Data.

Analtye	**Groundwater Standards pCi/L**	**106-02 11/25/2013 pCi/L**				**106-20 4/22/2013 pCi/L**				**106-21 4/22/2013 pCi/L**			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	-5.72	U	23.6	13.3								
Beryllium-7	40000	21.3	U	32.3	16.2								
Cesium-134	80	-1.7	U	2.61	1.94								
Cesium-137	120	2.19	U	3.58	1.79								
Co-60	200	-2.02	U	2.84	2.13								
Cobalt-57	4000	-0.296	U	2.69	1.55								
Europium-152	841	-0.702	U	9.34	5.2								
Europium-154	573	-2.58	U	8.66	5.07								
Europium-155	4000	8.49	U	11.5	6.87								
Gross Alpha	15	0.127	U	1.94	0.983								
Gross Beta	1000	1.84	J-N2	1.48	0.988								
Manganese-54	2000	-0.0666	U	3.2	1.73								
Sodium-22	400	-0.938	U	3.04	1.78								
Strontium-90	8	0.279	U	0.734	0.431	0.257	U	0.771	0.442	-0.00334	U	0.489	0.244
Tritium	20000	32.6	U	265	142								
Zinc-65	360	-2.51	U	6.31	3.75								

U - Not deteced.

J-N2 - Potential false positive.

Table 10. Former Landfill - Summary of 2013 Radionuclide Data.

Analtye	**Groundwater Standards pCi/L**	**106-43 4/22/2013 pCi/L**				**106-44 4/22/2013 pCi/L**				**106-45 4/22/2013 pCi/L**				**106-64 4/22/2013 pCi/L**			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2																
Beryllium-7	40000																
Cesium-134	80																
Cesium-137	120																
Co-60	200																
Cobalt-57	4000																
Europium-152	841																
Europium-154	573																
Europium-155	4000																
Gross Alpha	15																
Gross Beta	1000																
Manganese-54	2000																
Sodium-22	400																
Strontium-90	8	0.657	U	0.773	0.478	3		0.781	0.701	1.5		0.778	0.576	1.93		0.778	0.61
Tritium	20000																
Zinc-65	360																

U - Not deteced.

J-N2 - Potential false positive.

Table 11
Soil Gas Monitoring Well Description

Current Landfill			
Soil Gas Monitoring Well	**Screen Location**	**Top of Screen (Feet BLS)**	**Bottom Screen (Feet BLS)**
SGM-1 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-1 PROBE B	**Intermediate**	**10.5**	**17.5**
SGM-1 PROBE C	**Deep**	**20**	**29.5**
SGM-2 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-2 PROBE B	**Intermediate**	**10.5**	**16**
SGM-2 PROBE C	**Deep**	**19**	**28**
SGM-3 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-3 PROBE B	**Intermediate**	**10.5**	**17**
SGM-3 PROBE C	**Deep**	**20**	**29**
SGM-4 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-4 PROBE B	**Intermediate**	**10.5**	**20**
SGM-4 PROBE C	**Deep**	**23**	**32**
SGM-5 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-5 PROBE B	**Intermediate**	**10.5**	**22**
SGM-5 PROBE C	**Deep**	**25**	**34**
SGM-6 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-6 PROBE B	**Intermediate**	**10.5**	**18.5**
SGM-6 PROBE C	**Deep**	**21.5**	**30.5**
SGM-7 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-7 PROBE B	**Intermediate**	**10.5**	**16**
SGM-7 PROBE C	**Deep**	**19**	**26**
SGM-8 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-8 PROBE B	**Intermediate**	**10.5**	**16.5**
SGM-8 PROBE C	**Deep**	**19.5**	**28.5**
SGM-9 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-9 PROBE B	**Intermediate**	**10.5**	**20.5**
SGM-9 PROBE C	**Deep**	**23.5**	**32.5**
SGM-10 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-10 PROBE B	**Intermediate**	**10.5**	**15.5**
SGM-10 PROBE C	**Deep**	**18.5**	**27.5**
SGM-11 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-11 PROBE B	**Intermediate**	**10.5**	**16**
SGM-12 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-12 PROBE B	**Intermediate**	**10.5**	**15**
SGM-13 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-13 PROBE B	**Intermediate**	**10.5**	**13**
SGM-14 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-14 PROBE B	**Intermediate**	**10.5**	**13**
SGM-15 PROBE A	**Shallow**	**2.5**	**5.5**
SGM-15 PROBE B	**Intermediate**	**8.5**	**11.5**
SGM-16 PROBE A	**Shallow**	**2.5**	**5.5**
SGM-16 PROBE B	**Intermediate**	**8.5**	**11**
SGM-17 PROBE A	**Shallow**	**2.5**	**5.5**

Table 11
Soil Gas Monitoring Well Description

Current Landfill			
Soil Gas Monitoring Well	**Screen Location**	**Top of Screen (Feet BLS)**	**Bottom Screen (Feet BLS)**
SGM-17 PROBE B	**Intermediate**	**8.5**	**11**
SGM-18 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-18 PROBE B	**Intermediate**	**10.5**	**13.5**
SGM-19 PROBE A	**Shallow**	**2.5**	**7.5**
SGM-19 PROBE B	**Intermediate**	**10.5**	**17**

BLS – Below Land Surface

Current Landfill Outpost Wells		
Site ID	**Depth to Bottom from top PVC (feet)**	**PVC Stick Up from Ground (feet)**
GSGM-1A	**12.00**	**2.50**
GSGM-1B	**21.00**	**2.50**
GSGM-1C	**29.40**	**2.50**
GSGM-2A	**14.25**	**2.50**
GSGM-2B	**20.05**	**2.50**
GSGM-2C	**27.00**	**2.50**
GSGM-3A	**13.91**	**2.50**
GSGM-3B	**17.75**	**2.50**
GSGM-4A	**11.50**	**2.50**
GSGM-4B	**15.20**	**2.50**

Table 11
Soil Gas Monitoring Well Description

Former Landfill			
Soil Gas Monitoring Well	**Screen Location**	**Top of Screen (Feet BLS)**	**Bottom Screen (Feet BLS)**
SGM-1 PROBE A	**Shallow**	**2.5**	**10**
SGM-1 PROBE B	**Intermediate**	**15**	**43**
SGM-2PROBE A	**Shallow**	**2.5**	**10**
SGM-2 PROBE B	**Intermediate**	**15**	**40**
SGM-3 PROBE A	**Shallow**	**2**	**9.5**
SGM-3 PROBE B	**Intermediate**	**14.5**	**36**
SGM-4 PROBE A	**Shallow**	**2.5**	**10**
SGM-4 PROBE B	**Intermediate**	**15**	**35.5**
SGM-5 PROBE A	**Shallow**	**2.5**	**10**
SGM-5 PROBE B	**Intermediate**	**15**	**37**
SGM-6 PROBE A	**Shallow**	**2.7**	**10.2**
SGM-6 PROBE B	**Intermediate**	**22**	**37.2**
SGM-7 PROBE A	**Shallow**	**2.8**	**10.3**
SGM-7 PROBE B	**Intermediate**	**15**	**42**
SGM-8 PROBE A	**Shallow**	**2.5**	**10**
SGM-8 PROBE B	**Intermediate**	**15**	**47**
SGM-9 PROBE A	**Shallow**	**2.5**	**10**
SGM-9 PROBE B	**Intermediate**	**15**	**52**
SGM-10 PROBE A	**Shallow**	**2.5**	**10**
SGM-10 PROBE B	**Intermediate**	**15**	**52**
SGM-11 PROBE A	**Shallow**	**2.5**	**10**
SGM-11 PROBE B	**Intermediate**	**15**	**46**
SGM-12 PROBE A	**Shallow**	**2.5**	**10**
SGM-12 PROBE B	**Intermediate**	**15**	**43.5**

BLS – Below Land Surface

Table 12

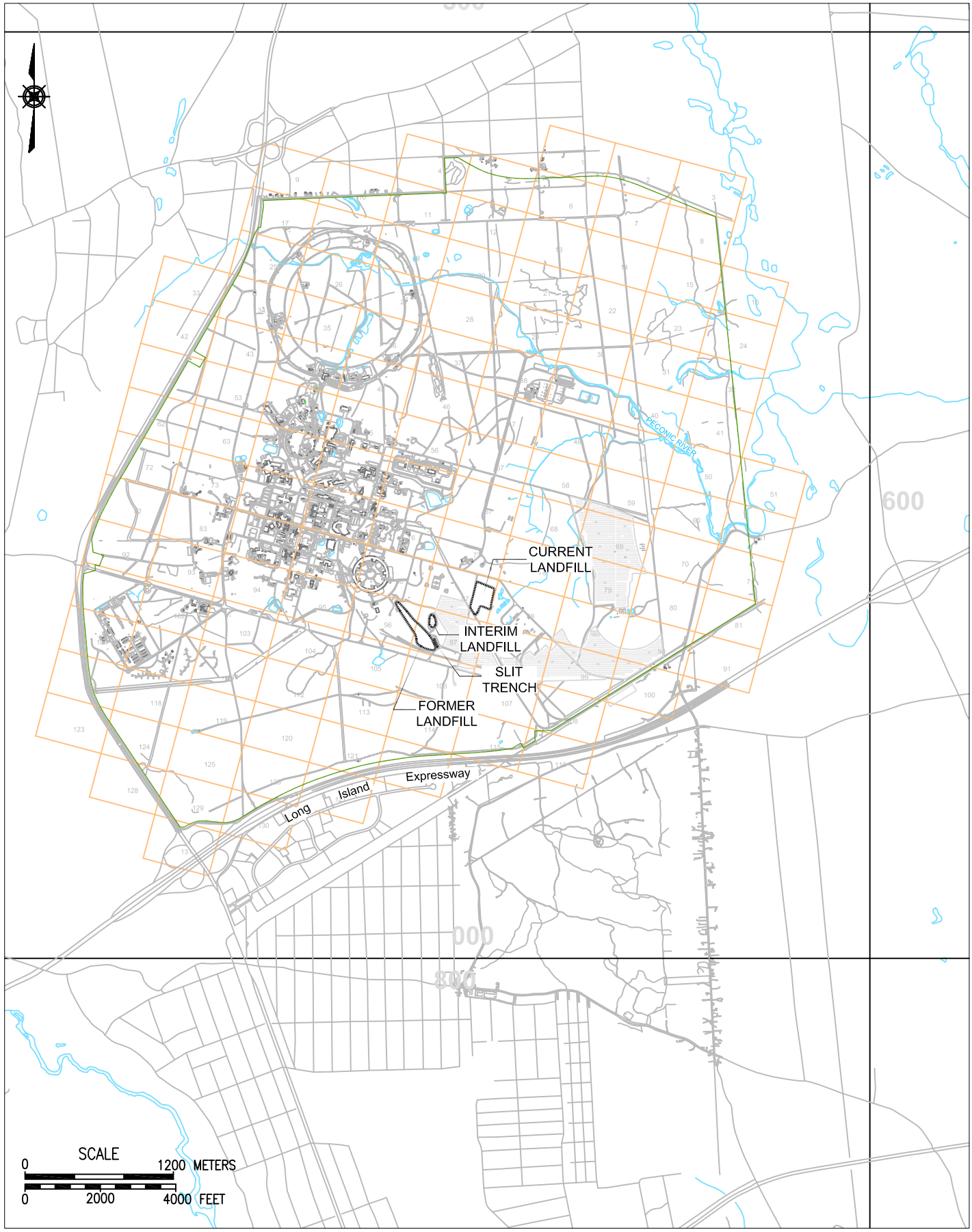
2013 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/13/13	Methane (% By Volume) 6/4-5/2013	Methane (% By Volume) 9/17-18/13	Methane (% By Volume) 11/19-20/2013	LEL (% By Volume) 3/13/13	LEL (% By Volume) 6/4-5/2013	LEL (% By Volume) 9/17-18/13	LEL (% By Volume) 11/19-20/2013	Hydrogen Sulfide (ppm by volume) 3/13/13	Hydrogen Sulfide (ppm by volume) 6/4-5/2013	Hydrogen Sulfide (ppm by volume) 9/17-18/13	Hydrogen Sulfide (ppm by volume) 11/19-20/2013	Soil Gas Monitoring Well
SGMW-01A	22.7	18.0	13.2	8.5	>100	>100	>100	>100	3.0	2.0	2.0	0.0	SGMW-01A
SGMW-01B	22.0	13.0	3.6	7.7	>100	>100	88	>100	2.0	1.0	0.0	0.0	SGMW-01B
SGMW-01C	19.9	18.1	9.4	5.6	>100	>100	>100	>100	2.0	0.0	0.0	0.0	SGMW-01C
SGMW-02A	59.1	55.2	59.8	41.9	>100	>100	>100	>100	1.0	3.0	0.0	1.0	SGMW-02A
SGMW-02B	23.5	54.2	53.8	49.5	>100	>100	>100	>100	0.0	29	2.0	11	SGMW-02B
SGMW-02C	55.6	0.0	0.1	50.9	>100	0.0	0.0	>100	4.0	0.0	0.0	3.0	SGMW-02C
SGMW-03A	32.3	53.7	28.3	30.8	>100	>100	>100	>100	0.0	9.0	2.0	1.0	SGMW-03A
SGMW-03B	60.8	43.2	0.0	34.2	>100	>100	0.0	>100	31	0.0	0.0	0.0	SGMW-03B
SGMW-03C	57.4	0.0	0.0	0.1	>100	0.0	0.0	2.0	28.0	0.0	0.0	0.0	SGMW-03C
SGMW-04A	50.6	45.7	39	39.9	>100	>100	>100	>100	0.0	8.0	1.0	0.0	SGMW-04A
SGMW-04B	49.7	33.5	0.0	32.8	>100	>100	0.0	>100	4.0	2.0	0.0	0.0	SGMW-04B
SGMW-04C	46.8	0.0	0.0	0.0	>100	0.0	0.0	0.0	5.0	0.0	0.0	0.0	SGMW-04C
SGMW-05A	43.3	33.6	7.1	0.6	>100	>100	>100	12	0.0	2.0	0.0	0.0	SGMW-05A
SGMW-05B	41.4	34.3	28	20.8	>100	>100	>100	>100	4.0	1.0	0.0	0.0	SGMW-05B
SGMW-05C	35.0	22.4	0.0	0.0	>100	>100	0.0	0.0	2.0	0.0	0.0	0.0	SGMW-05C
SGMW-06A	9.8	0.0	0.8	0.0	>100	0.0	17	0.0	0.0	0.0	0.0	0.0	SGMW-06A
SGMW-06B	38.7	0.2	34.7	0.1	>100	4.0	>100	2.0	3.0	0.0	7.0	0.0	SGMW-06B
SGMW-06C	38.0	27.8	31.3	0.0	>100	>100	>100	0.0	3.0	0.0	3.0	0.0	SGMW-06C
SGMW-07A	0.0	0.0	12.8	0.0	0.0	0.0	>100	0.0	0.0	0.0	5.0	0.0	SGMW-07A
SGMW-07B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07B
SGMW-07C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07C
SGMW-08A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08B
SGMW-08C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08C
SGMW-09A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09A
SGMW-09B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09B
SGMW-09C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09C
SGMW-10A	16.2	7.8	12.4	0.0	>100	>100	>100	0.0	3.0	3.0	9.0	0.0	SGMW-10A
SGMW-10B	16.0	13.7	16.2	2.0	>100	>100	>100	56	5.0	0.0	4.0	0.0	SGMW-10B
SGMW-10C	13.6	11.7	14.1	0.1	>100	>100	>100	2.0	3.0	0.0	1.0	0.0	SGMW-10C
SGMW-11A	12.7	13.8	19.2	8.2	>100	>100	>100	>100	3.0	8.0	14	6.0	SGMW-11A
SGMW-11B	11.4	10.8	15.3	10.7	>100	>100	>100	>100	0.0	0.0	0.0	17.0	SGMW-11B
SGMW-12A	53.5	46.1	42.5	25.9	>100	>100	>100	>100	12.0	14	8.0	0.0	SGMW-12A
SGMW-12B	42.2	36.7	46.0	2.0	>100	>100	>100	5.0	0.0	0.0	0.0	0.0	SGMW-12B
SGMW-13A	0.2	19.5	42.2	0.1	4.0	>100	>100	2.0	0.0	5.0	6.0	0.0	SGMW-13A
SGMW-13B	43.3	0.0	22.0	0.1	>100	0.0	>100	2.0	0.0	0.0	0.0	0.0	SGMW-13A
SGMW-14A	8.9	0.0	0.0	0.0	>100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-14A
SGMW-14B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-14B
SGMW-15A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-15A
SGMW-15B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-15B
SGMW-16A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-16A
SGMW-16B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-16B
SGMW-17A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-17A
SGMW-17B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-17B
SGMW-18A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-18A
SGMW-18B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-18B
SGMW-19A	27.8	14.6	1.4	0	>100	>100	28	0.0	6.0	5.0	0.0	0.0	SGMW-19A
SGMW-19B	28.0	0.0	0.0	0.0	>100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-19B
GSGM-1A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1A
GSGM-1B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1B
GSGM-1C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1C
GSGM-2A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2A
GSGM-2B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2B
GSGM-2C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2C
GSGM-3A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3A
GSGM-3B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3B
GSGM-4A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4A
GSGM-4B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4B

Table 13

2013 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 6/6/2013	Methane (% By Volume) 11/21/2013	LEL (% By Volume) 6/6/2013	LEL (% By Volume) 11/21/2013	Hydrogen Sulfide (ppm by volume) 6/6/2013	Hydrogen Sulfide (ppm by volume) 11/21/2013	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	SGMW-12B



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BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

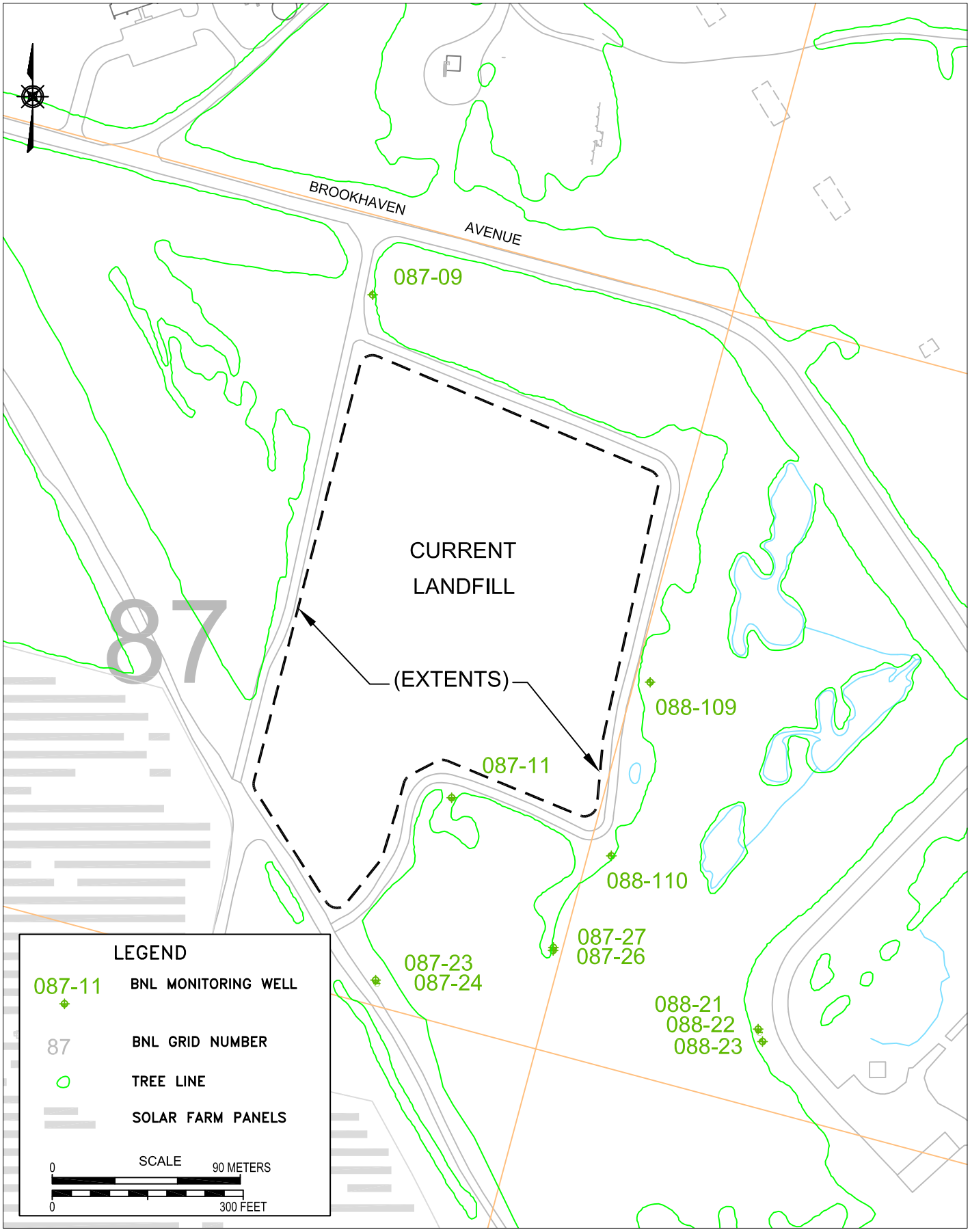
TITLE:

SITE LOCATION MAP

2013 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/07/14	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 1



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BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

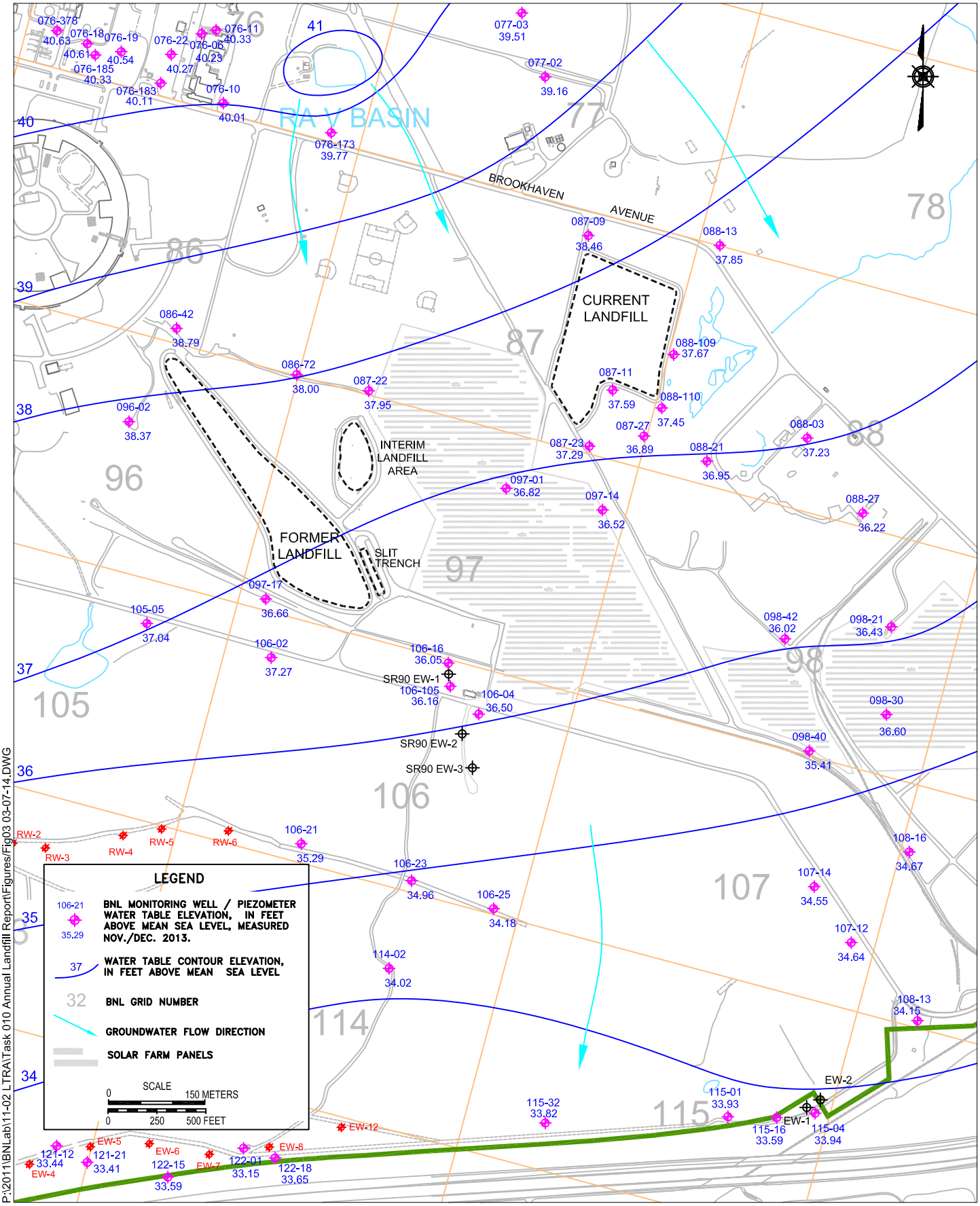
TITLE:

CURRENT LANDFILL MONITORING WELL LOCATIONS

2013 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/07/14	–
CHKD:	APPD:	REV.:	NOTES:
WRD	RFH	–	–

FIGURE NO.: 2



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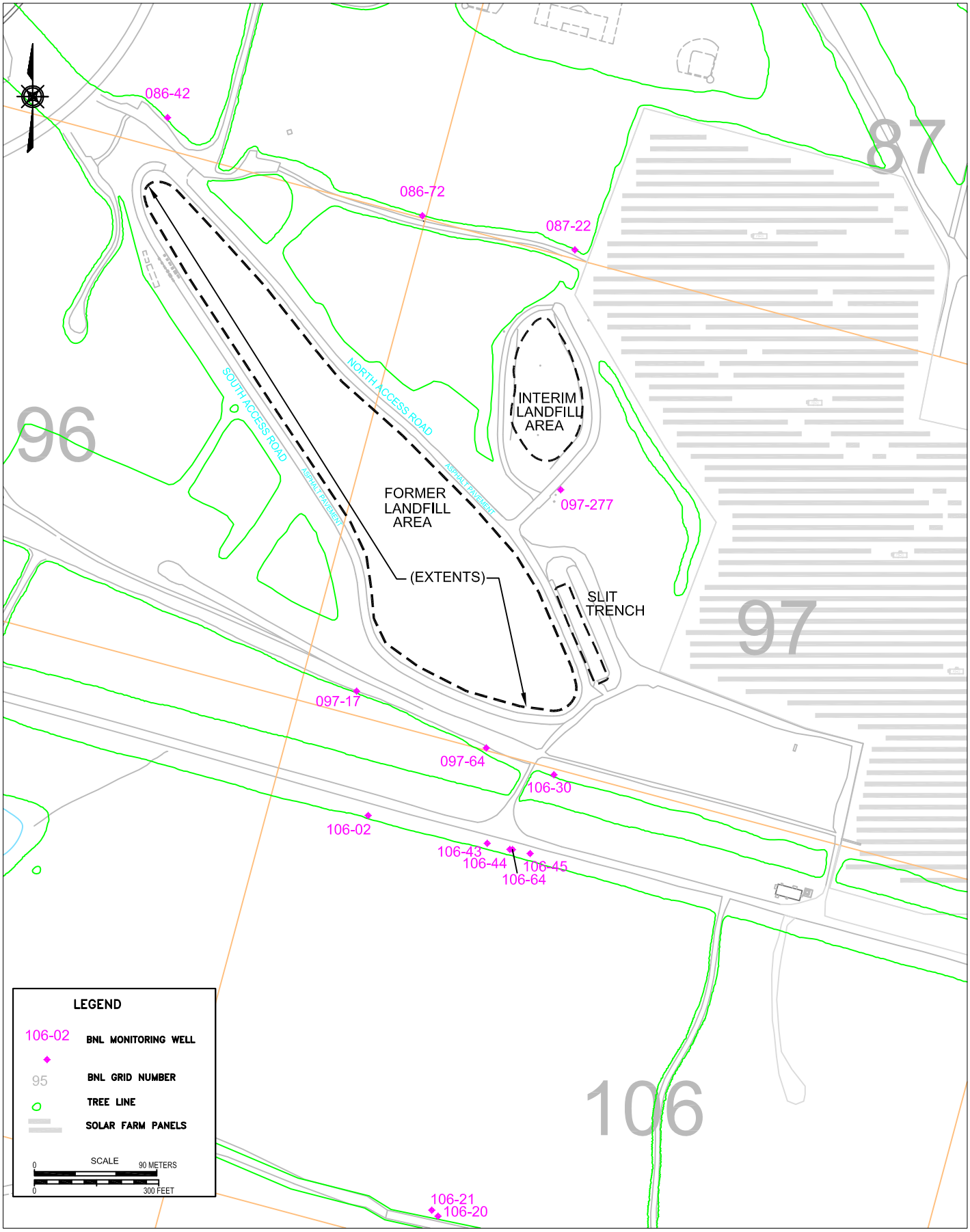
BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

WATER TABLE CONTOUR MAP
2013 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/07/14	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 3



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BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

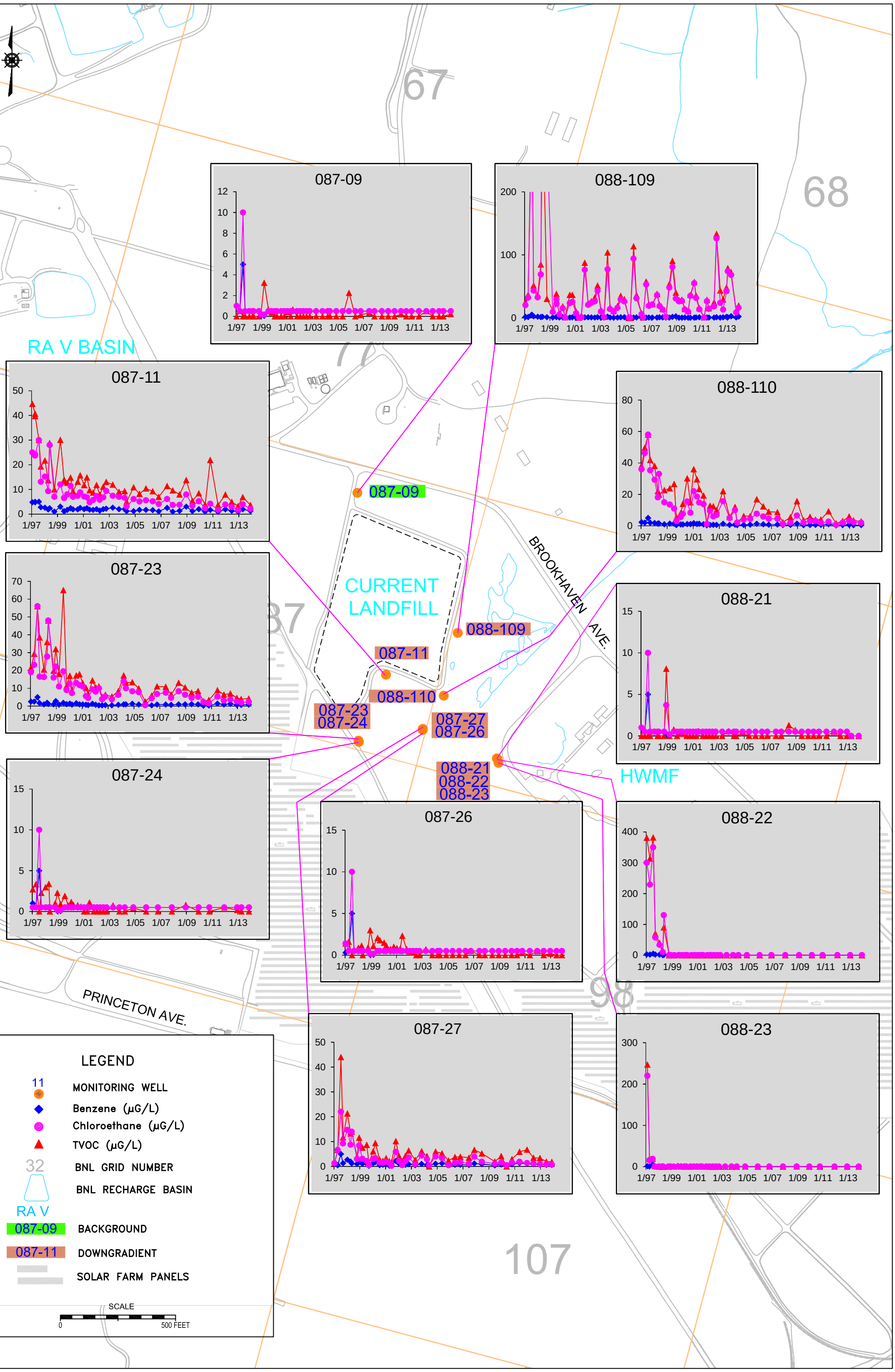
TITLE:

FORMER LANDFILL MONITORING WELL LOCATIONS

2013 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/07/14	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 4



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BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

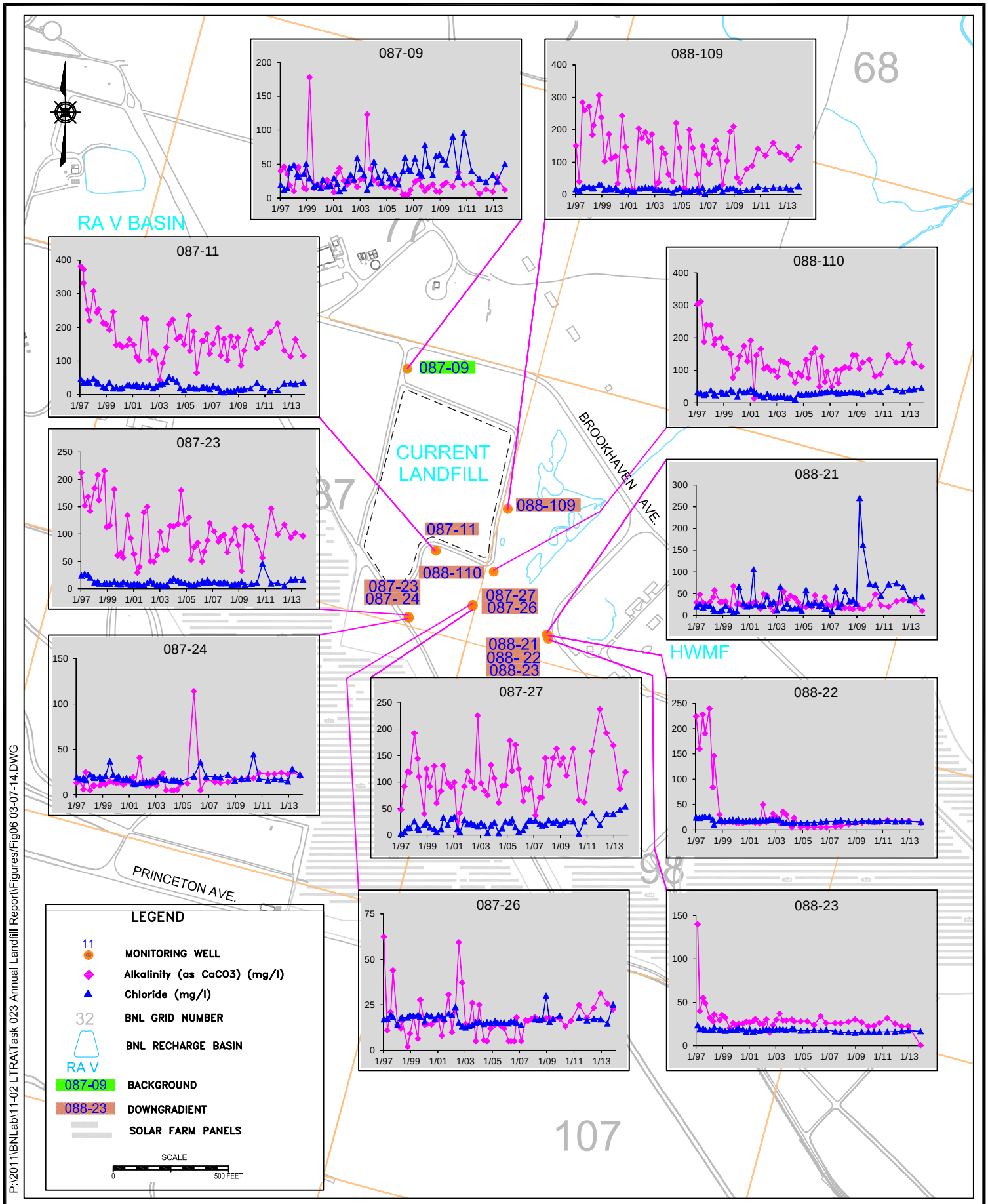
TITLE:

CURRENT LANDFILL VOC TREND PLOTS

2013 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/07/14	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 5



BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

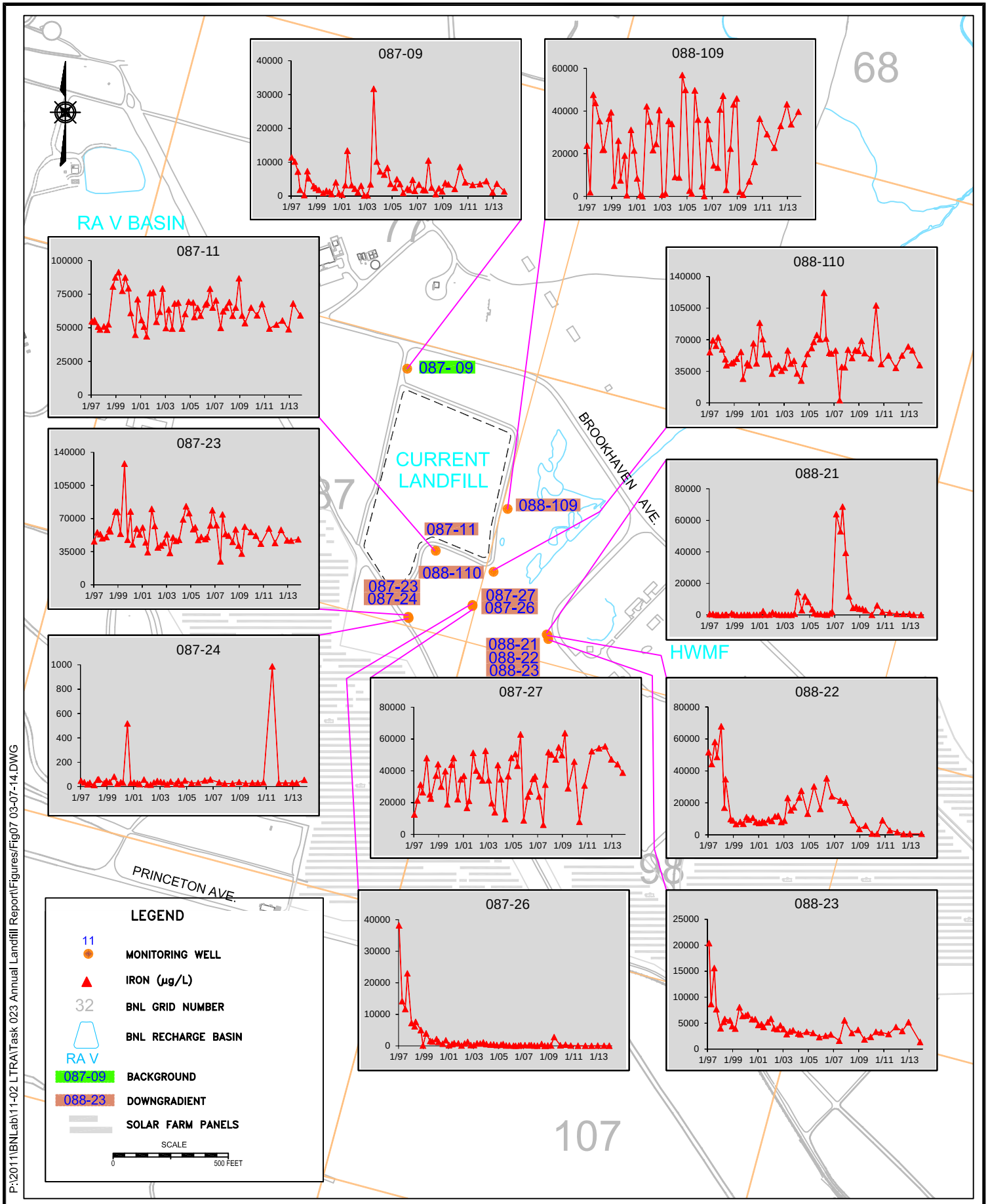
TITLE:

CURRENT LANDFILL ALKALINITY AND CHLORIDE TREND PLOTS

2013 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/07/14	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 6



BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

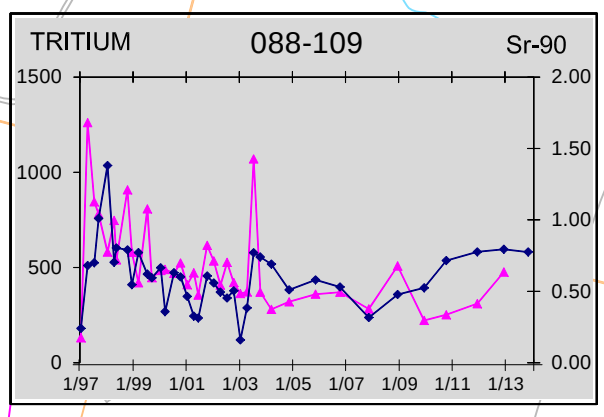
TITLE:

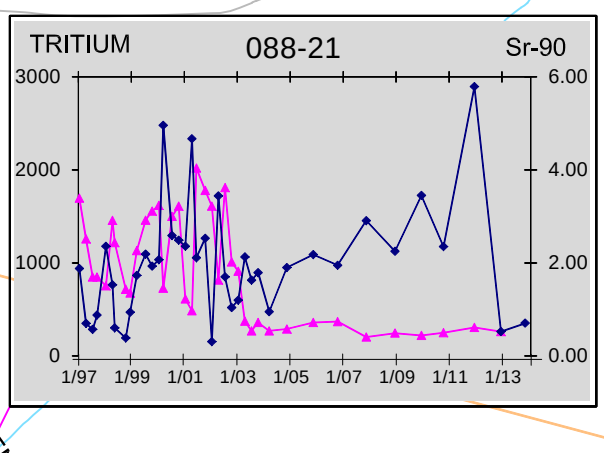
CURRENT LANDFILL IRON TREND PLOTS

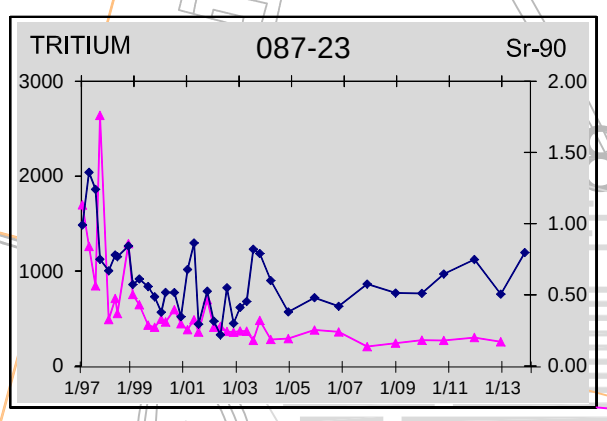
2013 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

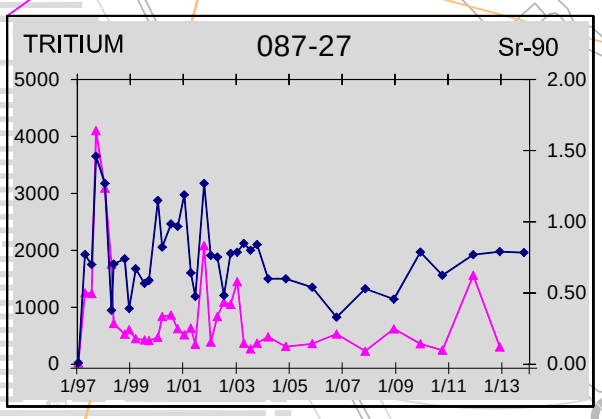
DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/07/14	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 7









LEGEND

- 11 — MONITORING WELL
- Strontium-90 (pCi/L) right scale
- Tritium (pCi/L) left scale
- 32 — BNL GRID NUMBER
- BNL RECHARGE BASIN
- RA V
- 087-09 — BACKGROUND
- 088-23 — DOWNGRADIENT
- SOLAR FARM PANELS

SCALE 0 500 FEET

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BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
CURRENT LANDFILL
TRITIUM AND SR-90 TREND PLOTS
2013 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VS: HS.:	DATE:	PROJECT NO.:
AJZ	–	03/07/14	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 8

Figure 9. Former Landfill Area
Well 106-02 VOC Trend Plot

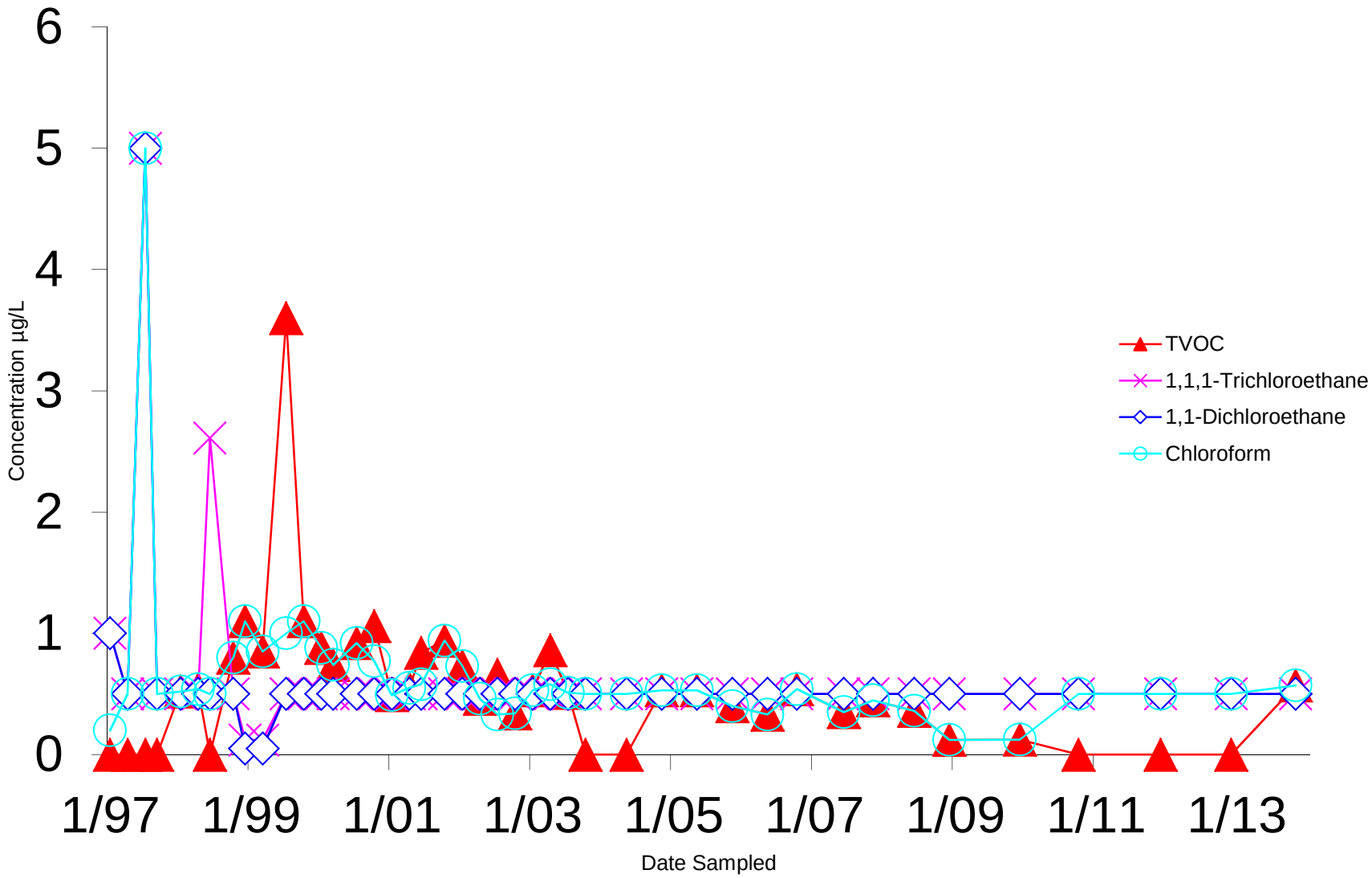


Figure 10. Former Landfill Area
Well 106-02 Alkalinity and Chloride Trend Plot

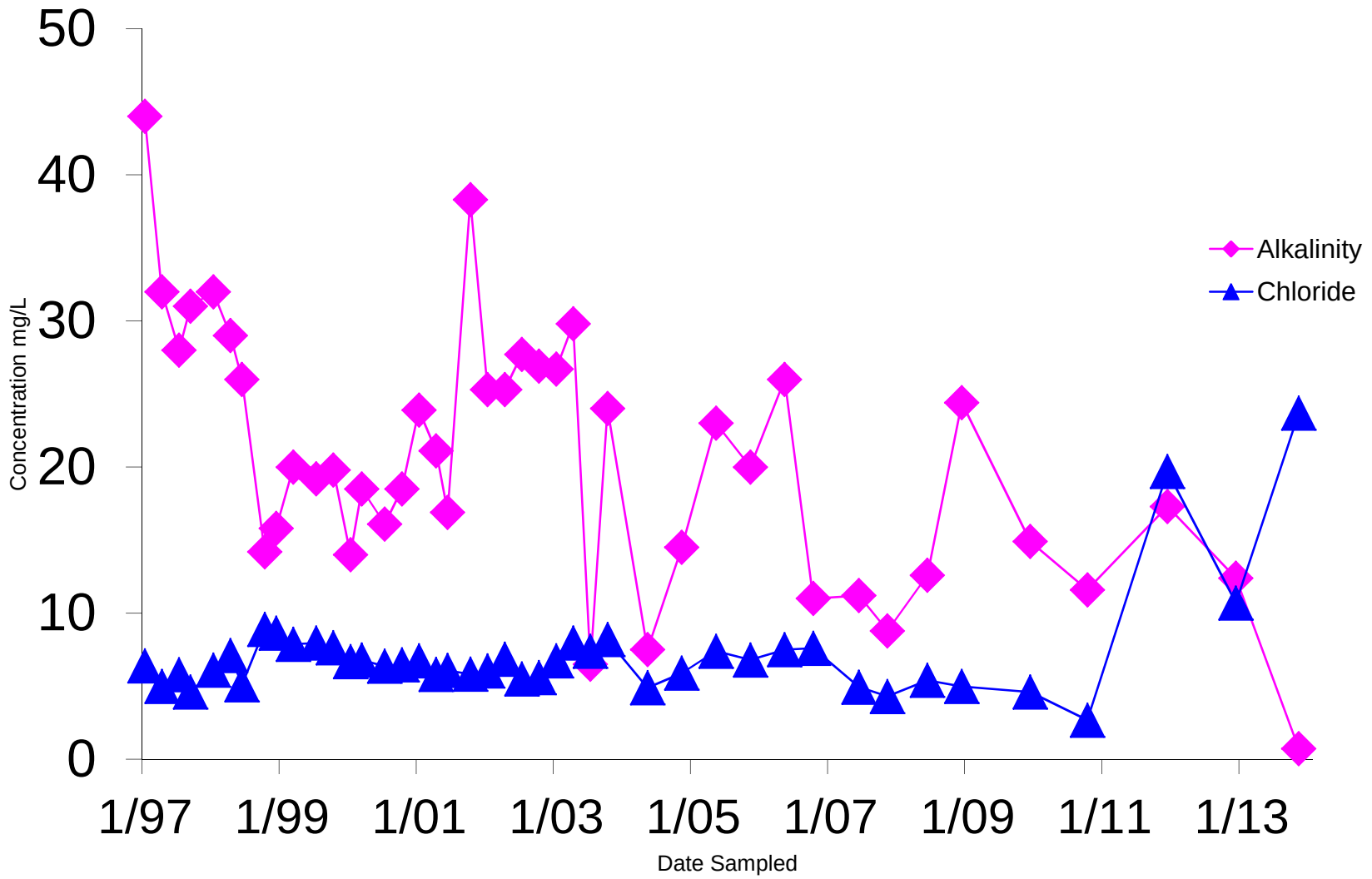
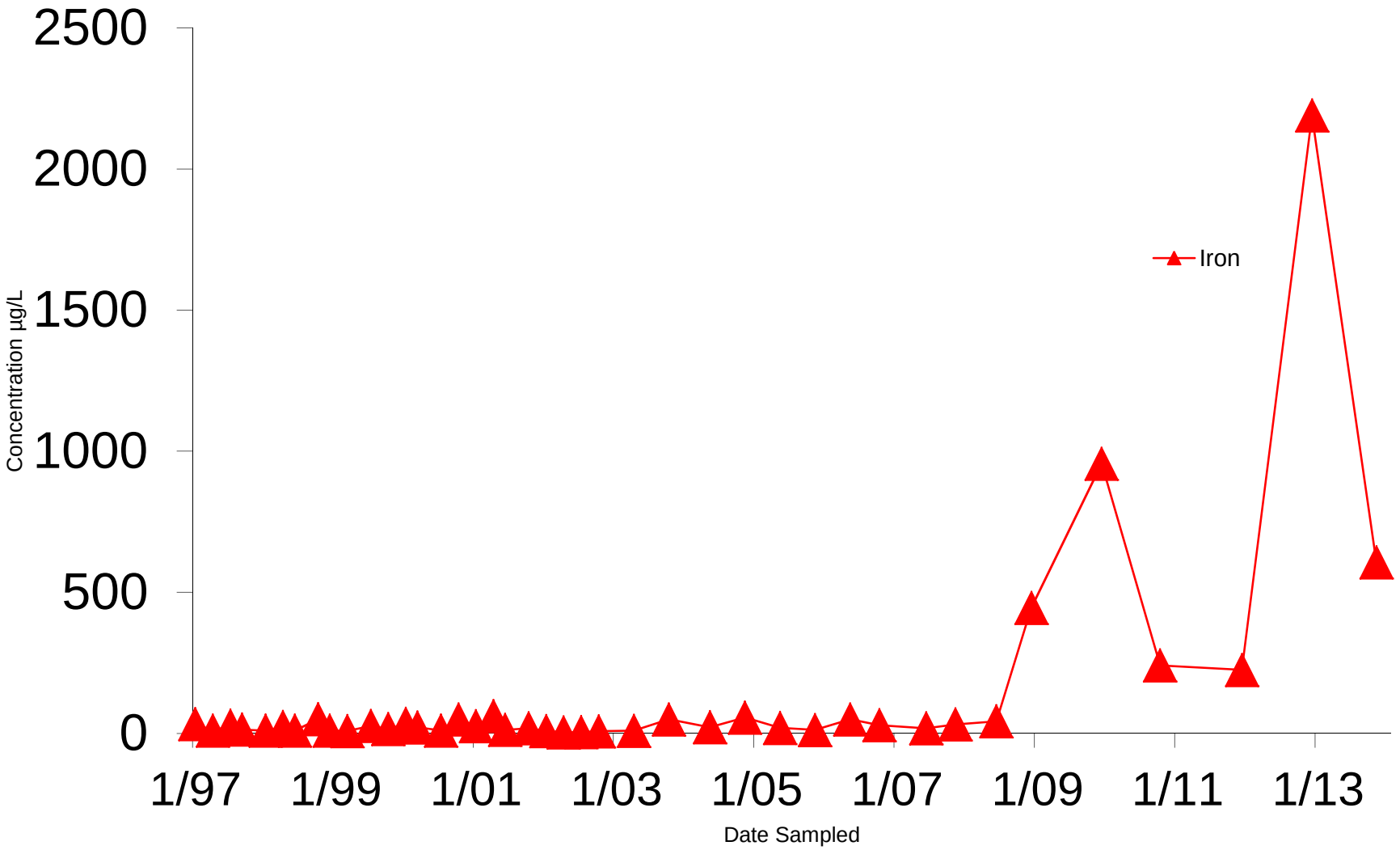
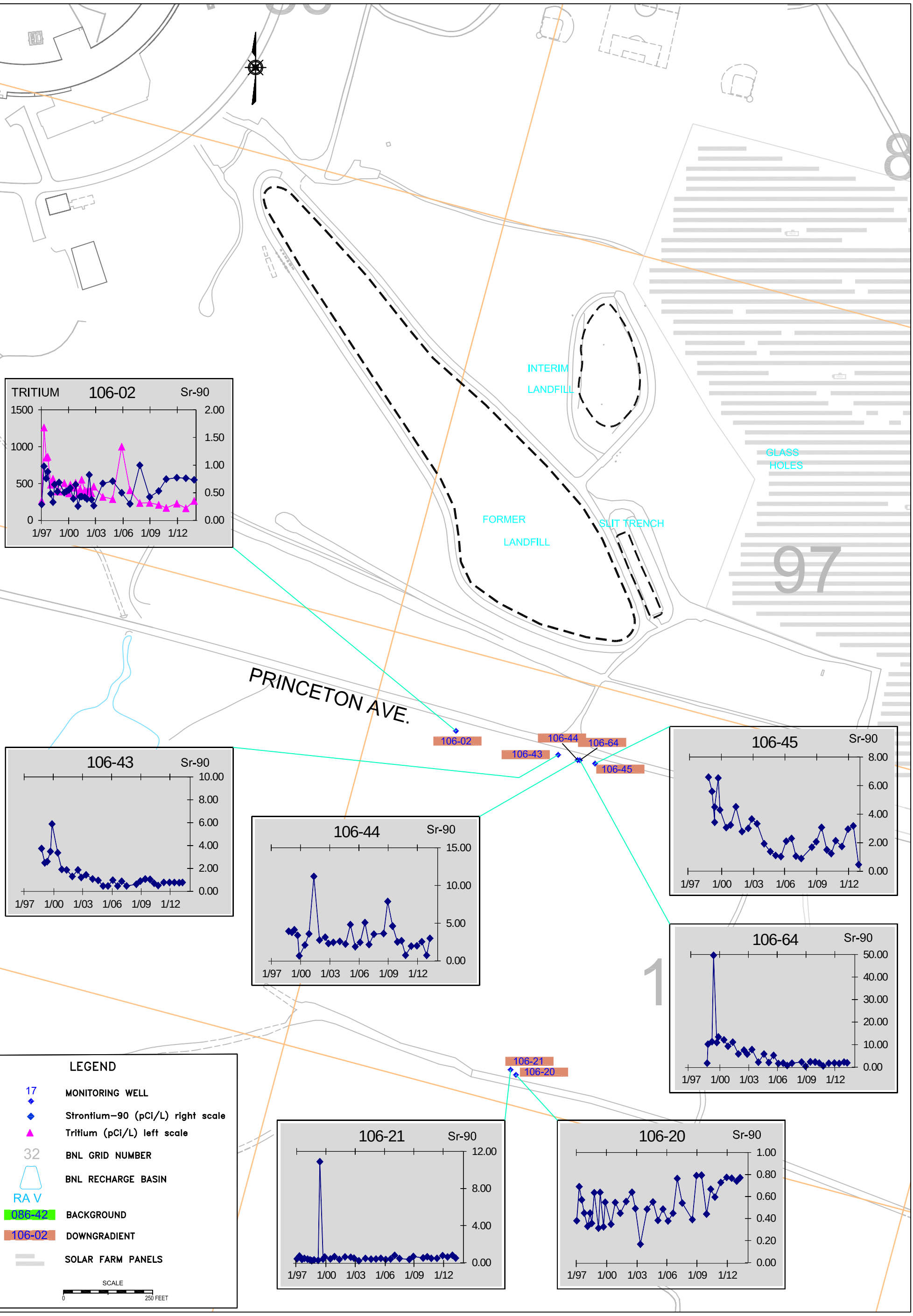


Figure 11. Former Landfill Area
Well 106-02 Iron Trend Plot





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BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

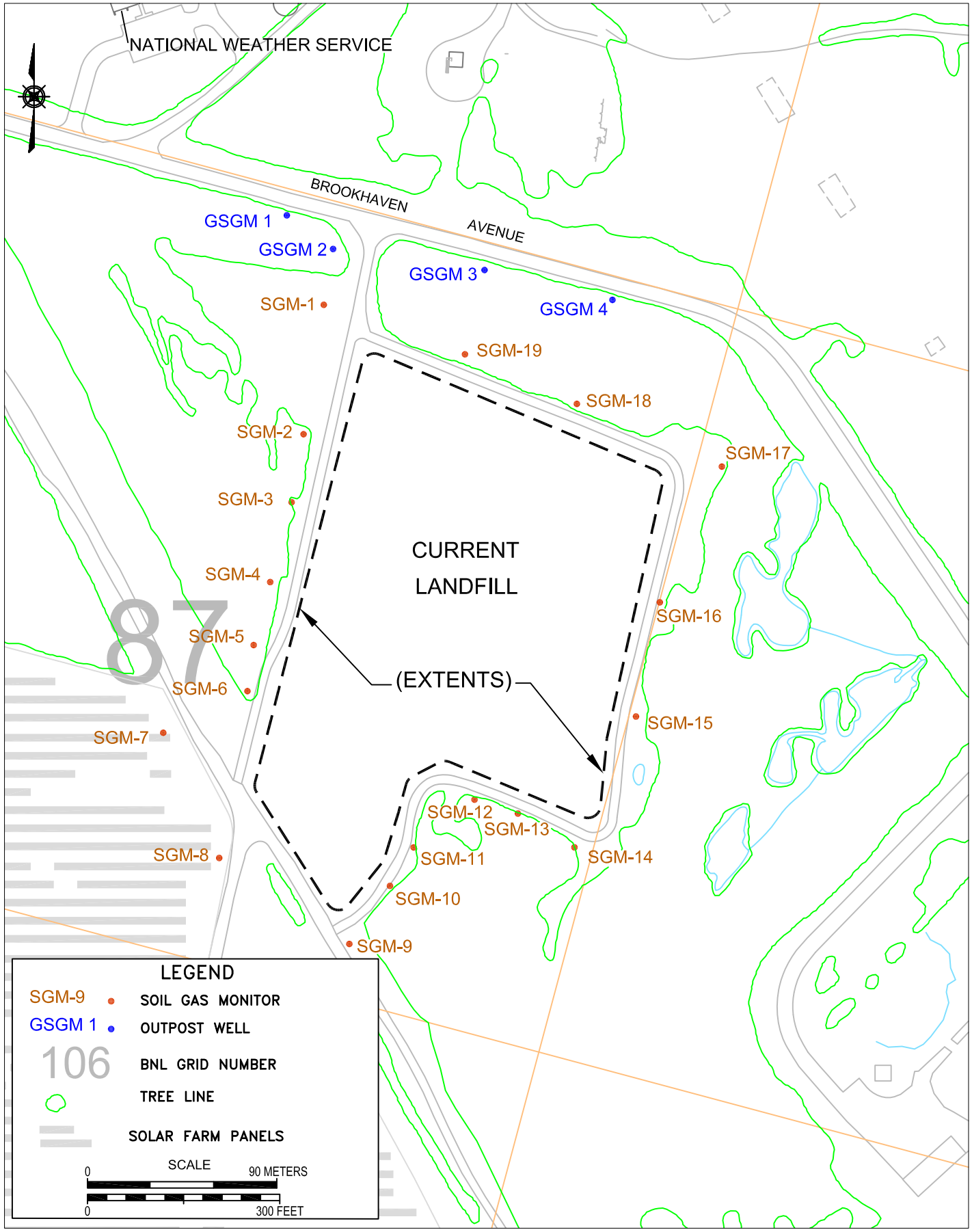
TITLE:

FORMER LANDFILL
TRITIUM AND SR–90 TREND PLOTS

2013 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VS: HS.:	DATE:	PROJECT NO.:
AJZ	–	03/07/14	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 12



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BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

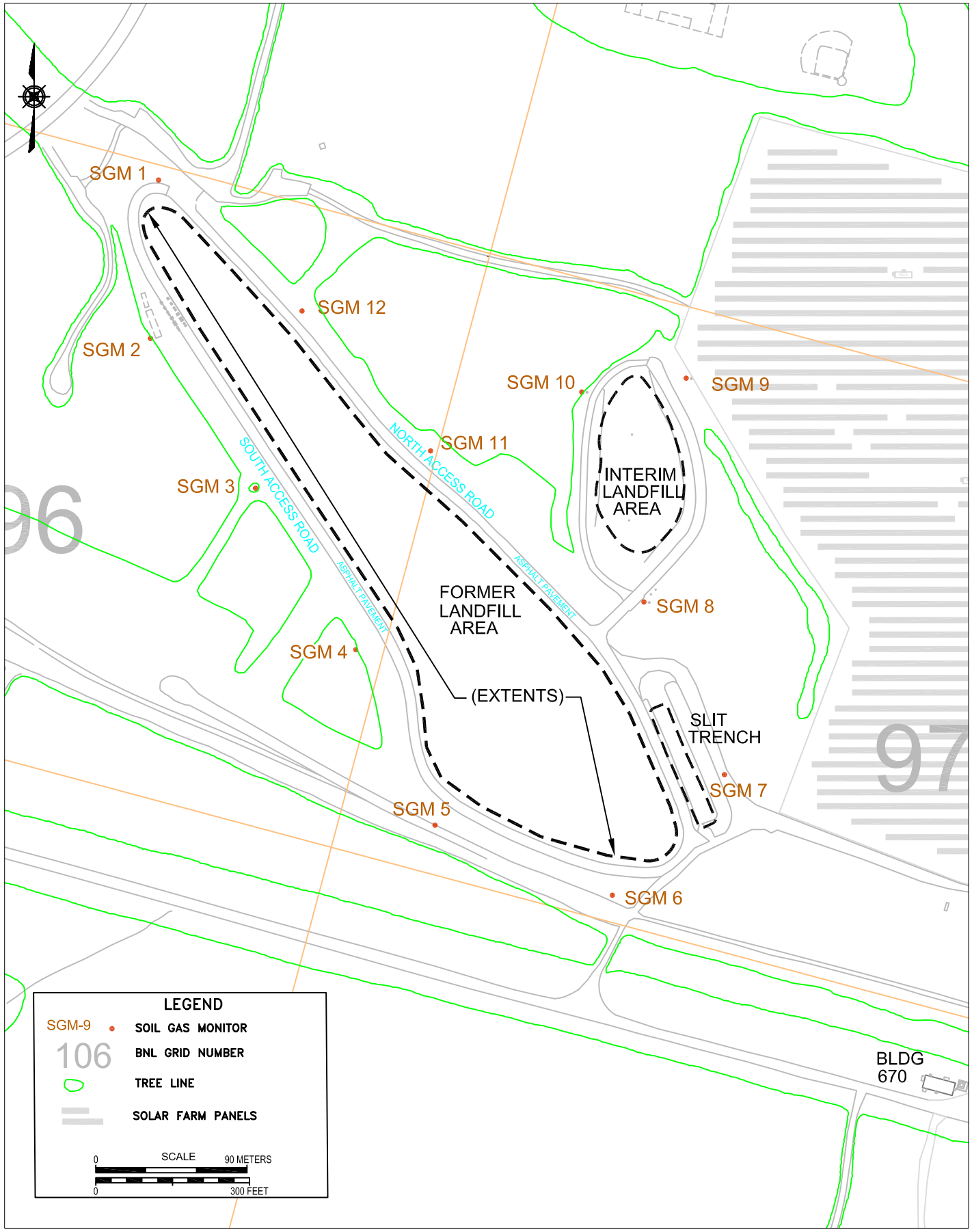
TITLE:

CURRENT LANDFILL SOIL GAS MONITOR LOCATION MAP

2013 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/07/14	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 13



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BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
FORMER LANDFILL SOIL GAS MONITOR LOCATION MAP
2013 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/07/14	–
CHKD:	APPD:	REV.:	NOTES:
JEB	RFH	–	–

FIGURE NO.: 14

Appendix A

Soil-gas Sampling Field Notes

JM 3/13/13 Current Landfill 50° Sunny clr 29.60"Hg

Location (72)	Well ID	CH4 %	LEL %	H2S ppm	Time/comments
SGM-1A	087-62	22.7	>100 454	3	0903
1B	087-78	22.0	>100 440	2	0909
1C	087-79	19.9	>100 398	2	0920
2A	087-63	59.1	>100 1182	1	0930
2B	087-80	23.5	>100 470	0	0938 Water in pipe
2C	087-81	55.8	>100 1116	4	0948
3A	087-64	32.3	>100 466	0	1002
3B	087-82	60.8	>100 1216	31	1010
3C	087-83	57.4	>100 1148	28	1020
4A	087-65	50.6	>100 1012	0	1025
4B	087-64	49.7	>100 994	4	1034
4C	087-85	46.8	>100 936	5	1044
5A	087-66	43.3	>100 866	0	1048
5B	087-86	41.4	>100 828	4	1052
5C	087-87	35.0	>100 700	2	1103
6A	087-67	9.8	>100 196	0	1110
6B	087-88	38.7	>100 774	3	1122
6C	087-89	38.0	>100 760	3	1135
7A	087-68	0	0	0	1310
7B	087-90	0	0	0	1318
7C	087-91	0	0	0	1328
8A	087-69	0	0	0	1340
8B	087-92	0	0	0	1348
8C	087-93	0	0	0	1358

Bf

JM Current Landfill 3/13/13 50° Sun

(73) Location	Well ID	CH4 %	LEL %	H2S ppm	Time/comments
SGM-9A	087-70	~~16.2~~ 0	~~>100~~ 0	~~3~~ 0	1405
9B	087-94	~~16.0~~ 0	~~>100~~ 0	~~5~~ 0	1413
9C	087-95	~~13.6~~ 0	~~>100~~ 0	~~3~~ 0	1424
10A	087-71	16.2	>100 324	3	1438
10B	087-96	16.0	>100 320	5	1447
10C	087-97	13.6	>100 272	3	1459
11A	087-72	12.7	>100 254	3	1504
11B	087-98	11.4	>100 228	0	1511
12A	087-73	53.5	>100 1070	12	1522
12B	087-99	42.2	>100 844	0	1528
13A	087-74	0.2	4%	0	1537
13B	087-100	43.3	>100 866	0	1544
14A	087-75	8.9	>100 178	0	1552
14B	087-108	0	0	0	1600
15A	088-111	0	0	0	Water in pipe 1605
15B	088-114	0	0	0	1607
16A	088-112	0	0	0	1612
16B	088-115	0	0	0	1619
17A	088-113	0	0	0	Water 1623
17B	088-116	0	0	0	Water 1629
18A	087-76	0	0	0	Water 1636
18B	087-102	0	0	0	Water 1646
19A	087-77	27.8	>100 556	6	1655
19B	087-103	28.0	>100 560	0	1710

JM

Current Landfill

3/14/13

29.79 "Hg 34°

(74)	Well ID	CH4 %	LEL %	H2S PPM	Time/cement
GSGM-1A	NO ID	0	0	0	1058
1B		0	0	0	1040
1C		0	0	0	1030
2A		0	0	0	1020
2B		0	0	0	1010
2C		0	0	0	1000
3A		0	0	0	0950
3B		0	0	0	0940
4A		0	0	0	0900
4B		0	0	0	0910

Current Landfill

Check for 200+ Lev's

6/4/2013 63° clear

29.9 Hg

Location ~~Well ID~~	Well ID #	CH4 % ~~LEL %~~	~~H2S PPM~~	H2S PPM	Time (75)
SGM-1A	087-62	18.0	>100 360	2	0912
1B	087-78	13.0	>100 260	1	0916
1C	087-79	18.1	>100 362	0	0925
2A	087-63	55.2	>100 1104	3	0930
2B	087-80	54.2	>100 1084	29	0937
2C	087-81	0	0	0	0947
3A	087-64	58.7	>100 1114	9	0953
3B	087-82	43.8	>100 876	0	0954
3C	087-83	0	0	0	1011
4A	087-65	45.7	>100 914	8	1015
4B	087-64	33.5	>100 670	2	1022
4C	087-85	0	0	0	1033
5A	087-66	33.6	>100 672	2	1040
5B	087-86	34.3	>100 686	1	1045
5C	087-87	22.4	>100 448	0	1055
6A	087-67	0	0	0	1102
6B	087-88	0.2	4	0	1108
6C	087-89	27.8	>100 556	0	1119
7A	087-68	0	0	0	1310 6/5/13
7B	087-90	0	0	0	1313
7C	087-91	0	0	0	1325
8A	087-69	0	0	0	1334
8B	087-92	0	0	0	1340
8C	087-93	0	0	0	1349

BP 5%

(GM) Current Landfill — Sunny Clr 70° — 6/4/13

(76) Location	Well ID	CH4 %	LEL %	H2S ppm	Time
SGM 9A	087-70	0	0	0	1125
9B	087-94	0	0	0	1135
9C	087-95	0	0	0	1145
					6/4 ↓ 6/5/13
10A	087-71	7.8	>100 156	3	0830
10B	087-96	13.7	>100 274	0	0836
10C	087-97	11.7	>100 234	0	0847
11A	087-72	13.8	>100 276	8	0855
11B	087-98	10.8	>100 216	0	0905
12A	087-73	46.1	>100 922	14	0909
12B	087-99	36.7	>100 734	0	0916
13A	087-74	19.5	>100 390	5	0927
13B	087-100	0	0	0	water inside 0932
14A	087-75	0	0	0	0936
14B	087-108	0	0	0	0941
15A	088-111	0	0	0	0947
15B	088-114	0	0	0	0958
16A	088-112	0	0	0	1019
16B	088-115	0	0	0	water 1024
17A	088-113	0	0	0	water 1032
17B	088-116	0	0	0	water 1038
18A	087-76	0	0	0	1044
18B	087-102	0	0	0	water 1049
19A	087-77	14.6	>100 292	5	1056
19B	087-103	0	0	0	water 1100

(GM) Current Landfill — 6/5/13

Location	Well ID	CH4 %	LEL %	H2S ppm	Time (77)
GSGM-1A	no ID	0	0	0	1320?
1B	↓	0	0	0	1327
1C		0	0	0	1340
2A		0	0	0	1348
2B		0	0	0	1400
2C		0	0	0	1410
3A		0	0	0	1134
3B		0	0	0	11[illegible]
4A		0	0	0	1130
4B	0	0	0	0	1140

Current Landfill
9/17/13 DM
53° 88% 30.32" Hg
Sunny Clear

Gas	Well ID	CH4%	LEL%	H2S ppm	Time/comments
1A	087-62	13.2	>100 264	2	0830
1B	087-78	3.6	88	0	0837
1C	087-79	9.4	>100 188	0	0846
2A	087-63	59.8	>100 1196	0	0854
2B	087-80	53.8	>100 1076	2	0859
2C	087-81	0.1	0	0	0904
3A	087-64	28.3	>100 566	2	0913
3B	087-82	0	0	0	0920
3C	087-83	0	0	0	0931
4A	087-65	39.0	>100 780	1	0935
4B	087-84	0	0	0	0942
4C	087-85	0	0	0	0950
5A	087-66	7.1	>100 142	0	0955
5B	087-86	28	>100 560	0	1005
5C	087-87	0	0	0	1017
6A	087-67	0.8	17	0	1023
6B	087-88	34.7	>100 694	7	1031
6C	087-89	31.3	>100 626	3	1043
7A	087-68	12.8	>100 256	5	1000
7B	087-90	0	0	0	9/18/13 1005
7C	087-91	0	0	0	1018
8A	087-69	0	0	0	1022
8B	087-92	0	0	0	1030
8C	087-93	0	0	0	1039

9/17–9/18/13 JR
9/18/13 CW 70°

	Well ID	CH4%	LEL%	H2S ppm	Time
9A	087-70	0.0	0	0	9/17 1055
9B	087-94	0.0	0	0	1100
9C	087-95	0.0	0	0	1113
10A	087-71	12.4	>100 248	9	1120
10B	087-96	16.2	>100 324	4	1127
10C	087-97	14.1	>100 282	1	1139
11A	087-72	19.2	>100 384	14	1145
11B	087-98	15.3	>100 306	0	1152
12A	087-73	42.5	>100 850	8	1205
12B	087-99	46.0	>100 920	0	1310
13A	087-74	42.2	>100 844	6	1318
13B	087-100	22.0	>100 440	0	1329
14A	087-75	0	0	0	1335
14B	087-108	0	0	0	1343
15A	088-111	0	0	0	9/18 1355
15B	088-114	0	0	0	water in pipe 1402
16A	088-112	0	0	0	1409
16B	088-115	0	0	0	water in pipe 1414
17A	088-113	0	0	0	water in pipe 1418
17B	088-116	0	0	0	water in pipe 1428
18A	087-76	0	0	0	water 1438
18B	087-102	0	0	0	water 1449
19A	087-77	1.4	28	0	1505
19B	087-103	0	0	0	1515

(80) JM

Current Landfill 9/18/13

	Well ID	CH4 %	LEL %	H2S ppm	
SGM-1A	NO ID	0	0	0	1520
1B	↓	0	0	0	1530
1C	↓	0	0	0	1540
2A	↓	0	0	0	1548
2B	↓	0	0	0	1557
2C	↓	0	0	0	1608
3A	↓	0	0	0	1613
3B	↓	0	0	0	1623
4A	↓	0	0	0	1631
4B	↓	0	0	0	1640

11/14/13 JM

Current Landfill 29.80" Hg

[illegible] 2000 Clear Sunny 35

(81)

Location	Well ID	CH4 %	LEL %	H2S ppm	
SGM-1A	087-62	8.5	>100 170	0	0900
1B	087-78	7.7	>100 154	0	0904
1C	087-79	5.6	>100 112	0	0910
2A	087-63	41.9	>100 838	1	0915
2B	087-80	49.5	>100 990	11	0922
2C	087-81	50.9	>100 1018	3	0933
3A	087-64	30.8	>100 616	1	0937
3B	087-82	34.2	>100 684	0	0944
3C	087-83	0.1	2	0	0955
4A	087-65	39.9	>100 798	0	1003
4B	087-84	32.8	>100 656	0	1007
4C	087-85	0	0	0	1018
5A	087-66	0.6	12	0	1021
5B	087-86	20.8	>100 416	0	1030
5C	087-87	0	0	0	1039
6A	087-67	0	0	0	1044
6B	087-88	0.1	2	0	1050
6C	087-89	0	0	0	1100
7A	087-68	0	0	0	1120
7B	087-90	0	0	0	1125
BR 7C	087-91	0	0	0	1135
8A	087-69	0	0	0	1142
8B	087-92	0	0	0	1149
8C	087-93	0	0	0	1200

82

30.40 "Hg 11/20/13 — 11/19 – 11/20/13

Location	Well ID	CH4%	LEL%	H2S PPM	Time
SGM 9A	087-70	0	0	0	1320
9B	087-94	0	0	0	1330
9C	087-95	0	0	0	1342
10A	087-71	0	0	0	1350
10B	087-96	2.8	56	0	1355
10C	087-97	0.1	2	0	1409
11A	087-72	8.2	>100 164	6	1415
11B	087-98	10.7	>100 214	17	1428
12A	087-73	25.9	>100 518	0	1433
12B	087-99	2	5	0	1440
13A	087-74	0.1	2	0	1500
13B	087-100	0.1	2	0	1510
14A	087-75	0	0	0	11/20/13 0930
14B	087-108	0	0	0	0939
15A	088-111	0	0	0	0945
15B	088-114	0	0	0	0952
16A	088-112	0	0	0	1000
16B	088-115	0	0	0	Water in pipe 1006
17A	088-113	0	0	0	1012
17B	088-116	0	0	0	Water in pipe 1030
18A	087-76	0	0	0	1045
18B	087-102	0	0	0	Water in pipe 1052
19A	087-77	0	0	0	1100
19B	087-103	0	0	0	1106

83

Cal check Gem 2000 — Current Landfill — 11/20/13

Location	Well ID	CH4%	LEL%	H2S PPM	
GSGM -1A	No ID	0	0	0	1113
1B	↓	0	0	0	1117
1C	↓	0	0	0	1128
2A	↓	0	0	0	1134
2B	↓	0	0	0	1142
2C	↓	0	0	0	1155
3A	↓	0	0	0	1305
3B	↓	0	0	0	1310
4A	↓	0	0	0	1318
4B	↓	0	0	0	1329

(3) Cal check Gem2000+

70°F Sunny Clear
30.03" Hg

J. Milliman

6/6/13

Former Landfill

Location	Well ID	CH_4%	LEL%	H_2S ppm	Time
SGM 1A	096-41	0	0	0	0832
1B	096-42	0	0	0	0840
2A	096-43	0	0	0	0845
2B	096-44	0	0	0	0855
3A	096-45	0	0	0	0905
3B	096-46	0	0	0	0918
4A	096-47	0	0	0	0925
4B	096-48	0	0	0	0937
5A	097-50	0	0	0	0942
5B	097-51	0	0	0	0950
6A	097-52	0	0	0	1006
6B	097-53	0	0	0	1018
7A	097-54	0	0	0	1025
7B	097-55	0	0	0	1030
8A	097-56	0	0	0	1106
8B	097-57	0	0	0	1118
9A	097-58	0	0	0	1126
9B	097-59	0	0	0	1138

J. Milliman
70°F Sunny Clear

6/6/13

(32)

Gem2000+ Former Landfill

Location	Well ID	CH_4%	LEL%	H_2S ppm	
SGM-10A	097-60	0	0	0	1310
-10B	097-61	0	0	0	1325
-11A	097-62	0	0	0	1345
-11B	097-63	0	0	0	1355
-12A	096-49	0	0	0	1400
-12B	096-50	0	0	0	1410

(33) 11/21/13 Gem 2000 Check JM

30.43" Hg clr 33°

Former Landfill

Location	Well ID	CH4 %	LEL %	H2S ppm	Time/comments
SGM 1A	096-41	0	0	0	0910
1B	096-42	0	0	0	0919
2A	096-43	0	0	0	0925
2B	096-44	0	0	0	0937
3A	096-45	0	0	0	0944
3B	096-46	0	0	0	0952
4A	096-47	0	0	0	1005
4B	096-48	0	0	0	1015
5A	097-50	0	0	0	1023
5B	097-51	0	0	0	1035
6A	097-52	0	0	0	1050
6B	097-53	0	0	0	1102
7A	097-54	0	0	0	1110
7B	097-55	0	0	0	1118
8A	097-56	0	0	0	1125
8B	097-57	0	0	0	1135
9A	097-58	0	0	0	1144
9B	097-59	0	0	0	1158

JM 11/21/13 Gem 2000 Check (34)

Former Landfill

Location	Well ID	CH4	LEL	H2S	Time/comments
SGM - 10A	097-60	0	0	0	1307
- 10B	097-61	0	0	0	1315
- 11A	097-62	0	0	0	1325
- 11B	097-63	0	0	0	1340
- 12A	097-49	0	0	0	1355
- 12B	096-50	0	0	0	1402

Appendix B

Monthly Landfill Site Inspection Forms

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 1-29-13

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: _____

Time off Site: _____

Weather Conditions: _____

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	X				X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
	Monitoring System:					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Asphalt Roads

Observed Conditions: Some Cracking

Recommendations: Continue to Monitor

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): ERIC KRAMER

Date of Inspection: 2-7-13

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ___

Time off Site: ___

Weather Conditions: Cold

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	X				X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
	Monitoring System:					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Asphalt Roads

Observed Conditions: SOME CRACKING

Recommendations: CONTINUE TO MONITOR

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 3-25-13

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ___

Time off Site: ___

Weather Conditions: Cool

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	X				X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road					
	Crushed-Concrete Access Road	X				X
		X				X

B. Description of Further Action Requirements:

1. Location: Asphalt Roads

Observed Conditions: SOME Cracking

Recommendations: CONTINUE TO MONITOR

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 4-17-13

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ___

Time off Site: ___

Weather Conditions: ___

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	X				X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3	**Monitoring System:**					
	Soil Gas Wells					
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road				X	
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Asphalt Roads

Observed Conditions: Some Cracking

Recommendations: Continue to Monitor

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric KRAMER

Date of Inspection: 5-15-2013

Purpose of Inspection: ___ Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: _____

Time off Site: _____

Weather Conditions: _____

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	X				X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X			X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Asphalt Roadway

Observed Conditions: SOME Cracking

Recommendations: CONTINUE TO MONITOR

BROOKHAVEN NATIONAL LABORATORY
LTRA SITE INSPECTION FORM

Location (AOC): Current Landfill and Wooded Wetland
Date of Inspection: 5/29/13
Name of Inspector(s): R. Howe, V. Racaniello, W. Dorsch, A. Steinhauff, E. Kramer, T. Kneitel
Purpose of Inspection: ☒ Routine (Scheduled Frequency of 2x/yr) ☐ Heavy Rainfall ☐ Reported Incident

A. Inspection Checklist

Component	Observed Condition				Further Action Req'd	
	Excell.	Fair	Poor	Not Applic.	Yes (describe)	No
1. Landfill Cap/Soil Covers/Wetlands:						
Vegetation (e.g. grass)	X				Finish cutting grass	
Soil (Cap/Cover/Fill)	X				No burrows observed	X
Other: _____						
2. Drainage Structures:						
Standing Water	X				Some water in wetland	X
Toe Drain	X					X
Drainage Channels	X				Little vegetation	X
French Drains/Outfalls				X		X
Subsurface Drainage Pipes/Outfalls	X					X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas				X	Little water in basin	X
Other: _____						
3. Monitoring System:						
Soil Gas Wells	X				Need weed whacking	
Groundwater Wells	X					X
Gas Vents	X				No nests	X
Other: __						
4. Site Access:						
Asphalt Access Road	X				Weeds in asphalt cracks	
Crushed-concrete Access Road				X		X
Fence	X					X
Gates/locks	X					X
Radiological Postings				X		X
Other: Stairs access to cap	X					X

5. Evidence of unauthorized work activities and/or unauthorized access has occurred? ☐ Yes ☒ No
If yes, describe evidence: _ _____

B. Description of Other Observations

Observed Conditions/Recommendations: Good vegetative growth, no animal burrows or pine seedlings observed. Facilities and Operations need to finish mowing the grass, spray vegetation in drainage culvert, and weed whack around the soil gas wells. The recharge basin has a small volume of water in one end, and the Wooded Wetlands has a moderate volume of water. Signs are in place and all gates locked. LUIC Factsheet Changes: Current Landfill, Under Admin. Controls, last bullet, reference the Soil and Peconic River S&M Plan. Wooded Wetlands Factsheet, Need to revise figure of wetland areas. Under Administrative Controls and References, Revise second bullet to include updated Natural Resource Management Plan (BNL-96320-2011). Update link for Plan reference.

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 6-19-2013

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ____ ____

Time off Site: ____ ____

Weather Conditions: _____

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels		X		X	
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X		X	
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts / Edges / Blacktop

Observed Conditions: Excessive Vegetation starting to grow. Road needs to be scraped

Recommendations: Will put in Work Orders

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 7-30-2013

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ____ ____

Time off Site: ____ ____

Weather Conditions: Sunny/Hot

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels		X		X	
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X		X	
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts/Edges/Blacktop
Observed Conditions:
Excessive Vegetation Growth. Road needs to be scraped.

Recommendations:
Work order in for grounds to remove Vegetation

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric KRAMER

Date of Inspection: 8-29-2013

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ___ ___

Time off Site: ___ ___

Weather Conditions: SUNNY/Warm

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels		X		X	
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
	Monitoring System:					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X		X	
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts / Edges of Roads / ~~Edges~~ BlackTop

Observed Conditions: Excessive Vegetation growth. Road Needs to be sprayed of Vegetation.

Recommendations: HAVe contacted grounds several times about Vegetation removal.

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 9-25-2013
Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident
Time on Site: ___
Time off Site: ___
Weather Conditions: Sunny/Warm

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels		X		X	
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road					
	Crushed-Concrete Access Road	X	X		X	

B. Description of Further Action Requirements:

1. Location: Culverts / Edges of Landfill / Blacktop
Observed Conditions:

Excessive Vegetation Growth. Road Needs to be Scraped.

Recommendations:

Continue to contact grounds about vegetation removal & road being scraped

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 10-23-13

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ___

Time off Site: ___

Weather Conditions: Sunny

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels		X		X	
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes					
	Recharge Areas	X				X
3	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X			
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts/Edges of Landfill/Blacktop

Observed Conditions: Excessive Vegetation Growth. Road needs to be scraped to remove Vegetation
Cracking in Blacktop.

Recommendations: Continuing to Contact Grounds. Continue to Monitor Cracks
in Black-Top

BROOKHAVEN NATIONAL LABORATORY
LTRA SITE INSPECTION FORM

Location (AOC): Current Landfill and Wooded Wetland
Date of Inspection: 10/29/12
Name of Inspector(s): R. Howe, E. Kramer, T. Kneitel, J. Burke, M. Chuc, D. Paquette
Purpose of Inspection: ☒ Routine (Scheduled Frequency of 2x/yr) ☐ Heavy Rainfall ☐ Reported Incident

A. Inspection Checklist

Component	Observed Condition				Further Action Req'd	
	Excell.	Fair	Poor	Not Applic.	Yes (describe)	No
1. Landfill Cap/Soil Covers/Wetlands:						
Vegetation (e.g. grass)	X				Needs mowing	
Soil (Cap/Cover/Fill)	X				Two burrows observed	
Other: _____						
2. Drainage Structures:						
Standing Water	X				Wetland is dry	X
Toe Drain	X					X
Drainage Channels	X				Little vegetation	X
French Drains/Outfalls				X		X
Subsurface Drainage Pipes/Outfalls		X			Minor erosion at outfall	X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas				X	Basin is dry	X
Other: _____						
3. Monitoring System:						
Soil Gas Wells	X				Weeds are clear	X
Groundwater Wells	X				Need lock on 087-09	
Gas Vents	X				No nests	X
Other: __						
4. Site Access:						
Asphalt Access Road	X				Seal asphalt cracks	
Crushed-concrete Access Road				X		X
Fence	X					X
Gates/locks	X				All locked	X
Radiological Postings				X		X
Other: Stairs access to cap	X					X

5. Evidence of unauthorized work activities and/or unauthorized access has occurred? ☐ Yes ☒ No
If yes, describe evidence: _ _____

B. Description of Other Observations

Observed Conditions/Recommendations: Good vegetative growth, no pine seedlings observed. Two woodchuck burrows were observed on the southeast slope, and were filled-in 10/30/13. Facilities and Operations need to finish mowing the grass, and spray vegetation growing on asphalt, then seal the cracks. There has been a drought so the recharge basin and the Wooded Wetlands are dry. The outfall at the recharge basin has some of the fabric exposed from erosion. Continue to monitor and take action, as needed. Signs in place and all gates locked. LUIC Factsheet Changes: None for Current Landfill. For Wooded Wetlands Factsheet, need to revise figure of wetland areas. Under References, Revise the last reference and web-link to the 2011 Natural Resource Management Plan.

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 11-26-13

Purpose of Inspection: ___ Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: _____

Time off Site: _____

Weather Conditions: Cloudy, Cool

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X			X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels		X			X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road		X			
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts/EDGES of Landfill/Blacktop

Observed Conditions: Excessive Vegetation Growth. Vegetation Starting to die off due to cold weather
Some cracking in blacktop

Recommendations: NO action Needed for Vegetation due to Seasonal change
CONTINUE to Monitor blacktop

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 12-18-13

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: ____ ____

Time off Site: ____ ____

Weather Conditions: _____

_____

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X			
	Cap	X				
	Gas Vents	X				
2.0	**Drainage Structures:**					
	Toe Drain	X				
	Drainage Channels	X				
	French Drains/Outfalls	X				
	Subsurface Drainage Pipes/Outfalls	X				
	Manholes	X				
	Recharge Areas	X				
	Monitoring System:					
	Soil Gas Wells	X				
	Groundwater Wells	X				
4.0	**Site Access:**					
	Asphalt Access Road		X			
	Crushed-Concrete Access Road	X				

B. Description of Further Action Requirements:

1. Location: Culverts/Blacktop

Observed Conditions:

Some Vegetation Growth. MOST Excessive Vegetation has died off due to cold weather.

Some cracking in blacktop

Recommendations:

Continue to monitor blacktop.

Spray Vegetation Killer in Spring

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 1-29-13

Purpose of Inspection: ___ Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: _____

Time off Site: _____

Weather Conditions: _____

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	X				X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Everything O.K.

Observed Conditions: _____

Recommendations: _____

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 2-7-13

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site:

Time off Site:

Weather Conditions: Cold

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	X				X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Everything O.K.

Observed Conditions:

Recommendations:

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric KRAMER

Date of Inspection: 3-25-13

Purpose of Inspection: ___ Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site:

Time off Site:

Weather Conditions: Cool

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	X				X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Everything Fine

Observed Conditions:

Recommendations:

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 4-17-13

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: _____

Time off Site: _____

Weather Conditions: _____

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	X				X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Everything OK

Observed Conditions: _____

Recommendations: _____

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 5-15-2013
Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident
Time on Site: _____
Time off Site: _____
Weather Conditions: _____

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	X				X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Everything OK
Observed Conditions: _____

Recommendations: _____

BROOKHAVEN NATIONAL LABORATORY
SITE INSPECTION FORM

Location (AOC): Former Landfill Area (includes the former and interim landfills and slit trench)
Date of Inspection: 5/22/13
Name of Inspector(s): R. Howe, W. Dorsch, V. Racaniello, D. Paquette
Purpose of Inspection: ☒ Routine (Scheduled Frequency of 2x/yr) ☐ Heavy Rainfall ☐ Reported Incident

A. Inspection Checklist

Component	Observed Condition				Further Action Req'd	
	Excell.	Fair	Poor	Not Applic.	Yes (describe)	No
1. Landfill Cap/Soil Covers/Wetlands:						
Vegetation (e.g. grass)	X				Needs cutting	
Soil (Cap/Cover/Fill)	X				Filled-in 3 burrows	X
Other: _____						
2. Drainage Structures:						
Standing Water	X					X
Toe Drain	X					X
Drainage Channels	X				Remove veg. in channels	
French Drains/Outfalls	X					X
Subsurface Drainage Pipes/Outfalls	X					X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas	X				Significant vegetation	X
Other: _____						
3. Monitoring System:						
Soil Gas Wells	X					X
Groundwater Wells	X					X
Gas Vents	X				Remove bush	
Other: Stairs_____	X				Railing was repaired	X
4. Site Access:						
Asphalt Access Road	X					X
Crushed-concrete Access Road	X					X
Fence				X		X
Gates/locks				X		X
Radiological Postings				X		X
Other: LUIC Signs	X					X

5. Evidence of unauthorized work activities and/or unauthorized access has occurred? ☐ Yes ☒ No
If yes, describe evidence: _____

B. Description of Other Observations

Observed Conditions/Recommendations: No erosion identified. Have Facilities and Operations (F&O) cut grass this spring on both landfills since it has been dry, cut grass around road of Interim Landfill and remove dead tree branch, weed whack around gas vents and gas and groundwater sampling wells, remove bush adjacent to gas vent on top of landfill and near Slit Trench, remove/spray vegetation in the drainage channels, and remove debris in drainage channel of Slit Trench. Filled-in three groundhog burrows along western slope of Former Landfill at time of inspection. LUIC Factsheet Changes: Under Admin Controls, last bullet, reference the Soil and Peconic River S&M Plan and the Landfill O&M Manual.

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric KRAMER

Date of Inspection: 6-19-2013

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site:

Time off Site:

Weather Conditions:

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels		X		X	
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts / Edges of Road

Observed Conditions: Excessive Vegetation Growth

Recommendations: Will put in Work order For Vegetation Removal

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 7-30-2013
Purpose of Inspection: ✓ Routine ___ Heavy Rainfall ___ Reported Incident
Time on Site: _____
Time off Site: _____
Weather Conditions: _____

A. Inspection Checklist

Component		Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels		X		X	
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts / Edges of Roads / Top of Landfill
Observed Conditions: Excessive Vegetation Growth

Recommendations: Work order in For Grounds to remove Vegetation

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 8-29-2013

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site:

Time off Site:

Weather Conditions: Sunny/Warm

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels		X		X	
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				X
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts/Edges of Roads/Edge of landfill

Observed Conditions:

Excessive Vegetation Growth. Pine Saplings Growing on Landfill

Recommendations:

Have contacted Grounds department numerous times about vegetation removal

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 9-25-2013
Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident
Time on Site:
Time off Site:
Weather Conditions: Sunny/warm

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels		X		X	
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts / Edges of Roads / Edges of Landfill
Observed Conditions:
Excessive vegetation growth. Pine saplings on Landfill

Recommendations: Continue to contact grounds about vegetation Removal.

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer
Date of Inspection: 10-23-13
Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident
Time on Site:
Time off Site:
Weather Conditions: Sunny

A. Inspection Checklist

Component		Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X		X	
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels		X		X	
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts / Edges of Roads / Edges of Landfill
Observed Conditions: Excessive Vegetation Growth. Pine Saplings on Landfill

Recommendations: Continue to contact Grounds about Vegetation Removal

BROOKHAVEN NATIONAL LABORATORY
SITE INSPECTION FORM

Location (AOC): Former Landfill Area (includes the former and interim landfills and slit trench)
Date of Inspection: 10/28/13
Name of Inspector(s): R. Howe, W. Dorsch, V. Racaniello, J. Burke, T. Kneitel, M. Chuc, E. Kramer
Purpose of Inspection: ☒ Routine (Scheduled Frequency of 2x/yr) ☐ Heavy Rainfall ☐ Reported Incident

A. Inspection Checklist

Component	Observed Condition				Further Action Req'd	
	Excell.	Fair	Poor	Not Applic.	Yes (describe)	No
1. Landfill Cap/Soil Covers/Wetlands:						
Vegetation (e.g. grass)	X				Recently cut	
Soil (Cap/Cover/Fill)	X				No burrows, removed pines on Interim LF	X
Other: _____						
2. Drainage Structures:						
Standing Water	X					X
Toe Drain	X					X
Drainage Channels	X				Remove veg. in channels	
French Drains/Outfalls	X					X
Subsurface Drainage Pipes/Outfalls	X					X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas	X				Significant vegetation	X
Other: _____						
3. Monitoring System:						
Soil Gas Wells	X					X
Groundwater Wells	X					X
Gas Vents	X				No wasp nests	X
Other: _____	X					X
4. Site Access:						
Asphalt Access Road		X			Some small cracks	X
Crushed-concrete Access Road		X				X
Fence				X		X
Gates/locks				X		X
Radiological Postings				X		X
Other: LUIC Signs	X				All signs in place	X

5. Evidence of unauthorized work activities and/or unauthorized access has occurred? ☐ Yes ☒ No
If yes, describe evidence: _____

B. Description of Other Observations

Observed Conditions/Recommendations: Cap is in good condition with no erosion evident. Grass was cut on Former Landfill and part of the Interim Landfill within last two weeks. Cut back small pine seedlings at time of inspection. Facilities and Operations (F&O) needs to complete mowing of Interim Landfill, Slit Trench, and path around Interim Landfill, remove/spray vegetation in all the drainage channels, and remove debris in drainage channel of Slit Trench. LUIC Factsheet Changes: None.

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 11-26-13

Purpose of Inspection: ___ Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site:

Time off Site:

Weather Conditions: Cloudy Cool

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X			X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X	~~X~~			X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				X
	Crushed-Concrete Access Road	X			~~X~~	X

B. Description of Further Action Requirements:

1. Location: Culverts / Edges of Roads / Edges of Landfill

Observed Conditions:

Excessive Vegetation Growth. Some pine Saplings on Landfill

Recommendations:

NO Vegetation Removal Needed due to die off from Seasonal change. Will have grounds remove Saplings in Spring

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 12-18-13

Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident

Time on Site: _____

Time off Site: _____

Weather Conditions: _____

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation		X			X
	Cap	X				X
	Gas Vents	X				X
2.0	**Drainage Structures:**					
	Toe Drain	X				X
	Drainage Channels	X				X
	French Drains/Outfalls	X				X
	Subsurface Drainage Pipes/Outfalls	X				X
	Manholes	X				X
	Recharge Areas	X				X
3.0	**Monitoring System:**					
	Soil Gas Wells	X				X
	Groundwater Wells	X				X
4.0	**Site Access:**					
	Asphalt Access Road	X				
	Crushed-Concrete Access Road	X				X

B. Description of Further Action Requirements:

1. Location: Culverts/Edges of Roads/Edges of landfill

Observed Conditions: Some pine Saplings in Various locations

Recommendations: Will have grounds remove saplings in Spring

Appendix C

Historical Soil-gas Monitoring Data

1996 CURRENT LANDFILL SOIL GAS MONITORING SUMMARY TABLE

1998 Environmental Monitoring Report

Current and Former Landfills - Brookhaven National Laboratory

Soil Gas Monitoring Well	Methane (% By Volume)			
	April-96	June-96	July-96	December-96
SGMW-01A	21.6	0	16.5	29.8
SGMW-01B	23.2	0	11	28.9
SGMW-01C	24.1	0	11.4	26.8
SGMW-02A	55.1	55	49.5	64.8
SGMW-02B	55.5	52.7	51.4	59
SGMW-02C	55.6	56.4	43.8	58
SGMW-03A	66	61.2	54	62.8
SGMW-03B	62	59.5	45	61.6
SGMW-03C	57.8	58.1	54	57.9
SGMW-04A	49.7	0	48.9	52.4
SGMW-04B	53	0	49.4	54.3
SGMW-04C	52.8	0	48.6	55.9
SGMW-05A	50.1	49.4	46.5	52
SGMW-05B	50.9	47.5	42	53.7
SGMW-05C	48.7	46.9	30.4	51.6
SGMW-06A	40.1	44.2	0.8	0
SGMW-06B	44	46	41.9	0
SGMW-06C	45.2	46.7	42	0
SGMW-07A	8.6	10.4	14.5	6.2
SGMW-07B	76	71.6	0.2	0.8
SGMW-07C	8.4	11.7	3.2	8.7
SGMW-08A	0	0	0.7	0
SGMW-08B	0	0	0	0
SGMW-08C	0	0	0	0
SGMW-09A	0.3	0	0	2.8
SGMW-09B	1.2	0	0	6.7
SGMW-09C	2.5	0.3	0	5.8
SGMW-10A	16.7	22.8	23	22.7
SGMW-10B	16.6	14.3	15.8	32.5
SGMW-10C	14	18.2	11.4	29.2
SGMW-11A	16.4	26.8	23.5	39.3
SGMW-11B	15.7	25.6	25	29.6
SGMW-12A	57.5	0	36.9	57.2
SGMW-12B	51.3	0	32.3	55.7
SGMW-13A	46.3	0	18.7	0
SGMW-13B	47.5	0	26	0
SGMW-14A	34.9	0	18.2	38.6
SGMW-14B	41.4	44.2	16	0
SGMW-15A	0	0.6	3.6	3.4
SGMW-15B	12.7	0	0	0
SGMW-16A	0	0	0	0
SGMW-16B	0	0	0.7	0
SGMW-17A	0	0	0	0
SGMW-17B	0	0	0	0
SGMW-18A	2.6	0	0	7.1
SGMW-18B	0.6	0	0	0
SGMW-19A	40.8	29	16	52.5
SGMW-19B	36.7	30.1	6.9	46.5
GSGM-1A	NA	<>	0	<>
GSGM-1B	NA	<>	0	<>
GSGM-1C	NA	<>	0	<>
GSGM-2A	NA	0	0	<>
GSGM-2B	NA	0	0	<>
GSGM-2C	NA	0	0	<>
GSGM-3A	NA	0	0	<>
GSGM-3B	NA	0	<>	<>
GSGM-4A	NA	0	0	<>
GSGM-4B	NA	0	0	<>

<> No measurement was recorded.

NA Well was not yet installed.

1997 CURRENT LANDFILL SOIL GAS MONITORING SUMMARY TABLE

1998 Environmental Monitoring Report

Current and Former Landfills - Brookhaven National Laboratory

Soil Gas Monitoring Well	Methane (% By Volume)			Hydrogen sulfide (ppm By Volume)		
	March-97	August-97	November-97	March-97	August-97	November-97
SGMW-01A	33.4	17.1	16.4	5	5	8
SGMW-01B	32.5	17.2	15.8	1	4	7
SGMW-01C	34.2	15.9	14.5	1	0	1
SGMW-02A	62.4	47.7	53.2	40	39	137
SGMW-02B	64.7	57	56.7	9	17	43
SGMW-02C	62.6	56.6	55.6	2	0	0
SGMW-03A	65.2	55.7	52.2	3	24	15
SGMW-03B	67.5	55.8	57	7	5	9
SGMW-03C	62.5	55.8	57	3	6	7
SGMW-04A	57.6	53.9	52.5	6	52	6
SGMW-04B	58.2	52.5	55.8	7	29	25
SGMW-04C	58.2	52.5	54.5	6	14	15
SGMW-05A	55.2	47.5	50.5	6	44	29
SGMW-05B	54.4	43.3	45.5	10	21	20
SGMW-05C	53.6	37.5	38.7	3	1	2
SGMW-06A	42.6	44	42.9	7	33	3
SGMW-06B	45	43.5	44.4	10	16	17
SGMW-06C	46	42	43.1	7	13	15
SGMW-07A	10.1	2.3	0	3	0	0
SGMW-07B	8.8	0	0	5	0	6
SGMW-07C	9.9	4.1	0.2	3	0	9
SGMW-08A	0	0	0	1	0	5
SGMW-08B	0	0	0	0	0	9
SGMW-08C	0	0	0	0	0	10
SGMW-09A	0.3	0	0	0	0	15
SGMW-09B	3.4	0	0	0	0	14
SGMW-09C	4.6	0.8	1	0	0	12
SGMW-10A	20.5	28	19	1	19	13
SGMW-10B	19.8	24.5	24	1	0	5
SGMW-10C	0	21.7	20.6	0	0	18
SGMW-11A	24.5	27.6	25.2	20	60	56
SGMW-11B	0	27.8	20.5	0	74	32
SGMW-12A	55.9	48	42	21	89	98
SGMW-12B	0	46.5	44.3	0	0	25
SGMW-13A	28.7	45.2	0.7	2	16	19
SGMW-13B	0	0.4	36.9	0	0	27
SGMW-14A	39.1	20.1	5.2	6	10	24
SGMW-14B	0	0	13.5	0	0	13
SGMW-15A	1.8	0.2	2.5	0	0	14
SGMW-15B	0	0	2.6	0	0	14
SGMW-16A	0	31.7	1.1	0	0	9
SGMW-16B	0	◇	0	0	◇	0
SGMW-17A	0	0	0	0	0	20
SGMW-17B	0	0	0	0	0	0
SGMW-18A	0	0	0	0	0	14
SGMW-18B	0	0	0	0	0	15
SGMW-19A	35.1	22	10.6	41	51	42
SGMW-19B	0	29	17.3	0	30	12
GSGM-1A	0	◇	0	4	◇	0
GSGM-1B	0	◇	0	5	◇	1
GSGM-1C	0	◇	0	6	◇	0
GSGM-2A	0	◇	0	6	◇	0
GSGM-2B	0	◇	0	6	◇	4
GSGM-2C	0	◇	0	6	◇	0
GSGM-3A	0	◇	0	5	◇	0
GSGM-3B	0	◇	0	4	◇	0
GSGM-4A	0	◇	0	5	◇	8
GSGM-4B	0	◇	0	5	◇	0

* Values are calculated, not measured. ◇ No measurement was recorded.

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1998 Current Landfill Soil Gas Monitoring Summary Table.

Soil Gas Monitoring Well	Methane (% By Volume) February-98	Methane (% By Volume) May-98	Methane (% By Volume) August-98	Methane (% By Volume) December-98	Hydrogen sulfide (ppm By Volume) February-98	Hydrogen sulfide (ppm By Volume) May-98	Hydrogen sulfide (ppm By Volume) August-98	Hydrogen sulfide (ppm By Volume) December-98	Soil Gas Monitoring Well
SGMW-01A	25.3	26.1	24.2	20.4	5	0	0	0	SGMW-01A
SGMW-01B	25.1	30.1	28	18.7	4	0	0	4	SGMW-01B
SGMW-01C	24	29	26	17.7	1	2	1	2	SGMW-01C
SGMW-02A	87.8	85.3	78.4	51.1	92	3	4	0	SGMW-02A
SGMW-02B	84.1	69	66	54.8	93	6	5	4	SGMW-02B
SGMW-02C	81.6	84.7	85	53.1	11	0	0	0	SGMW-02C
SGMW-03A	20.4	00	78.8	2.5	10	3	2	1	SGMW-03A
SGMW-03B	76.8	74	74	51.1	23	0	0	0	SGMW-03B
SGMW-03C	85.3	85.5	85.3	41.5	4	3	0	1	SGMW-03C
SGMW-04A	11.3	54.2	55	0.4	9	7	4	0	SGMW-04A
SGMW-04B	58.8	55.8	58	38.1	6	4	3	0	SGMW-04B
SGMW-04C	60.8	57.6	57.6	0	17	6	2	0	SGMW-04C
SGMW-05A	48.1	52.4	50	40.8	3	6	5	2	SGMW-05A
SGMW-05B	54	52.1	55.4	47.7	3	4	3	3	SGMW-05B
SGMW-05C	48	50.3	48	41.5	0	3	2	0	SGMW-05C
SGMW-06A	27.2	44.1	38.3	17.6	2	7	0	0	SGMW-06A
SGMW-06B	44.6	46.5	7.0	47.2	15	0	0	1	SGMW-06B
SGMW-06C	46.3	48	0.4	0	0	0	3	0	SGMW-06C
SGMW-07A	2.2	0.9	7.2	0	0	3	4	0	SGMW-07A
SGMW-07B	0	0.6	7	0	0	4	3	0	SGMW-07B
SGMW-07C	4.0	0.5	0.6	0.1	1	0	0	0	SGMW-07C
SGMW-08A	0	0	0	0	2	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	3	3	3	0	SGMW-08B
SGMW-08C	0	0	0	0	4	1	1	0	SGMW-08C
SGMW-09A	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0.7	1.4	1.2	0	2	0	0	0	SGMW-09B
SGMW-09C	3	2.7	2.5	0.7	5	2	1	0	SGMW-09C
SGMW-10A	17.0	28.7	28	26.2	0	0	0	0	SGMW-10A
SGMW-10B	23.5	26.4	26.3	26	2	0	0	0	SGMW-10B
SGMW-10C	20.7	24	25	23.7	0	0	0	0	SGMW-10C
SGMW-11A	22.0	31	29.4	17.0	16	0	0	0	SGMW-11A
SGMW-11B	10.0	20	26.3	26.4	0	0	0	0	SGMW-11B
SGMW-12A	53.7	57.2	60.1	33.0	37	2	1	3	SGMW-12A
SGMW-12B	60.3	0.2	3	38.2	11	3	4	0	SGMW-12B
SGMW-13A	7	61.6	59	0	0	0	0	0	SGMW-13A
SGMW-13B	0.1	0.1	0	0	0	0	0	0	SGMW-13B
SGMW-14A	17.1	21	20	1.2	0	1	2	0	SGMW-14A
SGMW-14B	0	0	15	0	0	0	2	0	SGMW-14B
SGMW-15A	1	1.2	0	0	6	0	0	0	SGMW-15A
SGMW-15B	0	0	0.7	0	0	0	0	0	SGMW-15B
SGMW-16A	0	0	0	0	0	0	0	0	SGMW-16A
SGMW-16B	0	0	0	0	0	1	0	0	SGMW-16B
SGMW-17A	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17B	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0.2	0	0	0	0	0	2	0	SGMW-18A
SGMW-18B	0	0	0	0	0	0	0	0	SGMW-18B
SGMW-19A	37.1	47.2	30.4	0.7	60	0	0	1	SGMW-19A
SGMW-19B	38.7	1	1	12	8	1	1	1	SGMW-19B

Soil Gas Monitoring Well	Methane (% By Volume) February-00	Methane (% By Volume) May-00	Methane (% By Volume) August-00	Methane (% By Volume) December-00
GSGM-1A	0	0	0	0
GSGM-1B	0	0	0	0
GSGM-1C	0	0	0	0
GSGM-2A	0	0	0	0
GSGM-2B	0	0	20.1	0
GSGM-2C	0	0	0	0
GSGM-3A	0	0	0	0
GSGM-3B	0	0	0	0
GSGM-4A	0	0	0	0
GSGM-4B	0	0	0	0

Hydrogen sulfide (ppm By Volume) February-00	Hydrogen sulfide (ppm By Volume) May-00	Hydrogen sulfide (ppm By Volume) August-00	Hydrogen sulfide (ppm By Volume) December-00	Soil Gas Monitoring Well
0	0	0	0	GSGM-1A
1	0	0	0	GSGM-1B
0	0	0	0	GSGM-1C
0	0	0	0	GSGM-2A
0	0	1	0	GSGM-2B
2	0	0	0	GSGM-2C
0	0	0	0	GSGM-3A
0	0	0	0	GSGM-3B
0	0	0	0	GSGM-4A
2	0	0	0	GSGM-4B

* Values are calculated, not measured.
<> No measurement was recorded.

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Soil Gas Monitoring Well	Methane (% By Volume) June-99	Methane (% By Volume) October-99	Methane (% By Volume) December-99	LEL (% By Volume) June-99	LEL (% By Volume) October-99	LEL (% By Volume) December-99	Hydrogen sulfide (ppm By Volume) June-99	Hydrogen sulfide (ppm By Volume) October-99	Hydrogen sulfide (ppm By Volume) December-99	Soil Gas Monitoring Well
SGMW-01A	16.5	17.0	16.0	390	380	394	0	< 1	2	SGMW-01A
SGMW-01B	16.6	16.1	15.6	370	382	372	0	< 1	3	SGMW-01B
SGMW-01C	17.2	14.2	16.7	344	200	334	0	< 1	1	SGMW-01C
SGMW-02A	52.4	52.0	55.0	1040	1062	1110	13	< 1	25	SGMW-02A
SGMW-02B	54.4	55	58.7	1060	1100	1134	3	< 1	11	SGMW-02B
SGMW-02C	55.3	55.2	57.5	1108	1104	1150	0	< 1	3	SGMW-02C
SGMW-03A	56.8	41.5	2.9	1102	830	50	3	< 1	1	SGMW-03A
SGMW-03B	61.4	60.3	61.3	1220	1100	1226	0	< 1	4	SGMW-03B
SGMW-03C	59.9	53.3	59.5	1190	1066	1190	0	< 1	3	SGMW-03C
SGMW-04A	53.6	0	35.1	1070	0	702	0	< 1	2	SGMW-04A
SGMW-04B	53.5	53.6	52.0	1070	1070	1058	0	< 1	7	SGMW-04B
SGMW-04C	52.4	55.2	50.7	1040	1104	974	2	< 1	9	SGMW-04C
SGMW-05A	47.8	51.1	47.4	940	1022	944	0	< 1	8	SGMW-05A
SGMW-05B	46	51.5	40	900	1030	884	0	< 1	4	SGMW-05B
SGMW-05C	39.7	35	38.5	794	702	768	0	< 1	4	SGMW-05C
SGMW-06A	41.1	0.1	38.2	820	2	764	0	< 1	2	SGMW-06A
SGMW-06B	43.2	43.2	40.0	862	862	834	0	< 1	7	SGMW-06B
SGMW-06C	43.1	0	40.6	862	0	820	0	< 1	6	SGMW-06C
SGMW-07A	3.3	0.1	0	68	2	0	0	< 1	2	SGMW-07A
SGMW-07B	0.9	0	0	18	0	0	0	< 1	2	SGMW-07B
SGMW-07C	4.4	0.17	1.3	88	34	28	0	< 1	2	SGMW-07C
SGMW-08A	0	0	0	0	0	0	0	< 1	2	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	< 1	2	SGMW-08B
SGMW-08C	0	0	0	0	0	0	0	< 1	3	SGMW-08C
SGMW-09A	0	0	0	0	0	0	0	< 1	3	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	< 1	3	SGMW-09B
SGMW-09C	0	0	0.1	0	0	2	0	< 1	3	SGMW-09C
SGMW-10A	21.4	16.7	20	420	314	400	1	< 1	2	SGMW-10A
SGMW-10B	19.8	20.7	21.1	396	632	420	0	< 1	3	SGMW-10B
SGMW-10C	17.8	22.8	18.1	360	454	384	0	< 1	3	SGMW-10C
SGMW-11A	15.3	21.2	18.8	308	424	388	0	< 1	3	SGMW-11A
SGMW-11B	15.2	25.8	14.8	304	512	294	10	< 1	3	SGMW-11B
SGMW-12A	48.8	45.1	47.1	930	902	942	30	< 1	8	SGMW-12A
SGMW-12B	44.2	48.5	47.8	884	930	954	0	< 1	3	SGMW-12B
SGMW-13A	53.4	0.1	0	1082	2	0	12	< 1	0	SGMW-13A
SGMW-13B	0.2	0.2	24.6	4	4	492	0	< 1	2	SGMW-13B
SGMW-14A	7.8	5.9	7.1	152	110	142	0	< 1	5	SGMW-14A
SGMW-14B	0	22.0	3.4	0	452	80	0	< 1	3	SGMW-14B
SGMW-15A	0	1.0	2.9	0	32	58	0	< 1	3	SGMW-15A
SGMW-15B	0	0.1	0	0	2	0	0	< 1	2	SGMW-15B
SGMW-16A	0	0.1	0	0	2	0	0	< 1	2	SGMW-16A
SGMW-16B	0	0.1	0	0	2	0	0	< 1	2	SGMW-16B
SGMW-17A	screen in water table	0.1	0	< 0	2	0	< 0	< 1	2	SGMW-17A
SGMW-17B	screen in water table	0.1	0	< 0	2	0	< 0	< 1	2	SGMW-17B
SGMW-18A	0	0.1	0	0	2	0	0	< 1	2	SGMW-18A
SGMW-18B	0	1	0.4	0	20	0	0	< 1	1	SGMW-18B
SGMW-19A	25.1	23	20.0	802	460	400	16	< 1	16	SGMW-19A
SGMW-19B	30.1	27.3	20.5	802	544	410	0	< 1	12	SGMW-19B

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Soil Gas Monitoring Well	Methane (% By Volume) June-99	Methane (% By Volume) October-99	Methane (% By Volume) December-99	LEL (% By Volume) June-99	LEL (% By Volume) October-99	LEL (% By Volume) December-99	Hydrogen sulfide (ppm By Volume) June-99	Hydrogen sulfide (ppm By Volume) October-99	Hydrogen sulfide (ppm By Volume) December-99	Soil Gas Monitoring Well
GSGM-1A	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	GSGM-1B
GSGM-1C	0	broken valve	broken valve	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	2	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	1	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	1	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	GSGM-4B

<= No measurement was recorded.

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Soil Gas Monitoring Well	Methane (% By Volume) February-00	Methane (% By Volume) June-00	Methane (% By Volume) September-00	Methane (% By Volume) December-00	LEL (% By Volume) February-00	LEL (% By Volume) June-00	LEL (% By Volume) September-00	LEL (% By Volume) December-00	Hydrogen Sulfide (ppm by volume) February-00	Hydrogen Sulfide (ppm by volume) June-00	Hydrogen Sulfide (ppm by volume) September-00	Hydrogen Sulfide (ppm by volume) December-00	Soil Gas Monitoring Well
SGMW-01A	20.0	20.5	21.0	18.0	402	410	422	368	0	0	4	0	SGMW-01A
SGMW-01B	19.3	20.3	11.3	14.2	386	408	232	268	1	0	1	0	SGMW-01B
SGMW-01C	17.5	13.7	11.6	13.0	350	276	230	260	0	0	1	0	SGMW-01C
SGMW-02A	48.5	64.0	60	54.4	990	(1000)	(1000)	(1000)	1	3	9	16	SGMW-02A
SGMW-02B	55.1	57.1	56.3	58.2	(1102)	(1142)	(1120)	(1124)	4	20	8	11	SGMW-02B
SGMW-02C	58.0	48.3	58.0	58.0	(1120)	886	(1120)	(1120)	2	0	4	0	SGMW-02C
SGMW-03A	48.2	62.0	64.0	67.0	966	(1250)	(1200)	(1182)	1	0	0	2	SGMW-03A
SGMW-03B	67.0	67.0	60.2	67.4	(1140)	(1240)	(1200)	(1240)	1	4	0	2	SGMW-03B
SGMW-03C	57.3	61.2	63.0	58.7	(1148)	(1224)	(1240)	(1134)	1	4	0	4	SGMW-03C
SGMW-04A	30.7	61.0	2.0	51.0	614	(1050)	52	(1120)	1	4	1	1	SGMW-04A
SGMW-04B	48.8	62.0	48.0	50.0	970	(1088)	972	(1200)	2	2	0	2	SGMW-04B
SGMW-04C	43.0	52.1	43.0	45.2	900	(1042)	858	900	4	0	1	8	SGMW-04C
SGMW-05A	47.7	46.4	47.6	47.2	954	988	950	944	1	0	0	0	SGMW-05A
SGMW-05B	44.6	50.0	40.2	43.0	892	(1080)	804	870	1	0	5	0	SGMW-05B
SGMW-05C	36.7	43.7	40.7	38.7	734	874	814	736	2	1	0	0	SGMW-05C
SGMW-06A	33.0	41.7	18.0	44.0	660	834	370	880	0	4	0	2	SGMW-06A
SGMW-06B	43.0	45.6	48.0	46.0	960	916	960	920	1	2	2	3	SGMW-06B
SGMW-06C	44.3	46.2	33.7	46.0	886	906	674	910	0	1	1	0	SGMW-06C
SGMW-07A	0.2	.6.0	0.0	0.0	0	118	10	0	0	0	1	1	SGMW-07A
SGMW-07B	0	0.0	0.0	0.0	0	12	0	0	0	0	1	2	SGMW-07B
SGMW-07C	2.8	3.0	1.8	0.6	62	60	30	10	0	0	2	2	SGMW-07C
SGMW-08A	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-08A
SGMW-08B	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-08B
SGMW-08C	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-08C
SGMW-09A	0	0	0	0.0	0	0	0	0	1	0	1	3	SGMW-09A
SGMW-09B	0	0	0	0.0	0	0	0	0	1	0	1	3	SGMW-09B
SGMW-09C	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-09C
SGMW-10A	0.3	38.1	23.7	17.0	106	622	474	340	1	3	2	3	SGMW-10A
SGMW-10B	13.6	21.7	20.1	15.6	270	424	672	310	1	0	2	2	SGMW-10B
SGMW-10C	10.8	19.5	22.2	12.6	212	390	444	250	1	0	2	3	SGMW-10C
SGMW-11A	10.1	27.1	64.0	13.0	202	542	(1050)	272	2	20	10	7	SGMW-11A
SGMW-11B	6.8	28.4	54.2	8.2	136	626	(1050)	164	2	21	2	0	SGMW-11B
SGMW-12A	43.9	60.0	64.4	48.6	878	(1200)	(1200)	930	2	63	2	7	SGMW-12A
SGMW-12B	43.6	48.0	46.1	47.0	852	968	962	940	1	0	0	6	SGMW-12B
SGMW-13A	23.4	57.6	63.6	40.0	468	(1152)	(1278)	998	1	0	2	2	SGMW-13A
SGMW-13A	45.1	0	0	48.2	902	0	0	964	1	0	0	67	SGMW-13A
SGMW-14A	2.7	20.2	16.8	12.1	54	404	310	242	1	0	0	7	SGMW-14A
SGMW-14B	0	0	0	23.3	0	0	0	446	1	0	0	31	SGMW-14B
SGMW-15A	2.0	0	1.8	0.0	40	0	32	0	2	0	2	4	SGMW-15A
SGMW-15B	0	0	0	0.0	0	0	0	0	2	0	0	5	SGMW-15B
SGMW-16A	0	0	0	0.0	0	0	0	0	1	0	0	2	SGMW-16A
SGMW-16B	0	0	0	0.0	0	0	0	0	0	0	0	2	SGMW-16B
SGMW-17A	0	0	0	0.0	0	0	0	0	1	0	0	1	SGMW-17A
SGMW-17B	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-17B
SGMW-18A	0	0	0	0.0	0	0	0	0	0	0	0	2	SGMW-18A
SGMW-18B	0	0.1	0.1	0.0	0	2	0	0	0	0	0	4	SGMW-18B
SGMW-19A	12.9	28.9	34.0	14.2	256	778	680	284	4	2	10	13	SGMW-19A
SGMW-19B	18.7	34.0	32.8	18.0	334	682	656	360	4	0	0	4	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	0	0	0	1	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	0	0	1	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	0	0	0	1	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	0	0	0	1	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	0	0	4	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	0	0	3	GSGM-4B

** No Measurement was collected due to other work in the area.
Measurements in ( ) are calculated, not measured.

Brookhaven National Laboratory
2001 Landfills Environmental Monitoring Report
2001 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) March-01	Methane (% By Volume) June-01	Methane (% By Volume) September-01	LEL (% By Volume) March-01	LEL (% By Volume) June-01	LEL (% By Volume) September-01	Hydrogen Sulfide (ppm by volume) March-01	Hydrogen Sulfide (ppm by volume) June-01	Hydrogen Sulfide (ppm by volume) September-01
SGMW-01A	22.3	23.1	18.5	440	462	800	2	11	0
SGMW-01B	2.8	0.0	17.1	434	0	384	0	0	0
SGMW-01C	16.3	20.4	19.3	326	408	368	0	57	49
SGMW-02A	59.8	62.0	67.9	1200	1858	>1,000	140	1	0
SGMW-02B	60.0	0.0	66.9	1100	0	>1,000	101	0	0
SGMW-02C	0.0	0.0	53.2	0	0	>1,000	1	14	43
SGMW-03A	30.0	61.0	62.0	780	1160	>1,000	5	21	0
SGMW-03B	67.2	66.6	64.7	1344	1330	>1,000	20	2	0
SGMW-03C	0.2	0.0	63.5	4	0	>1,000	1	4	32
SGMW-04A	42.0	0.0	62.0	858	78	>1,000	2	15	14
SGMW-04B	50.6	63.0	61.0	1010	1872	>1,000	3	2	0
SGMW-04C	0.0	0.2	59.6	0	4	>1,000	1	2	0
SGMW-05A	46.0	40.2	57.6	912	804	>1,000	3	2	0
SGMW-05B	43.0	0.2	53.0	878	4	>1,000	2	3	0
SGMW-05C	0.0	0.1	48.3	0	2	800	2	3	0
SGMW-06A	10.4	0.3	64.4	208	100	>1,000	2	4	84
SGMW-06B	0.0	0.2	63.0	0	4	>1,000	2	4	6
SGMW-06C	0.0	0.1	62.0	0	2	>1,000	2	3	0
SGMW-07A	0.0	0.1	0.2	0	102	4	1	0	0
SGMW-07B	0	0.0	0.2	0	0	4	2	0	0
SGMW-07C	0.0	0.0	1.1	10	0	24	0	1	0
SGMW-08A	0	0	.2	0	0	4	1	1	0
SGMW-08B	0	0	.2	0	0	4	2	2	0
SGMW-08C	0	0	.3	0	0	0	2	1	0
SGMW-09A	0	.3	0	0	0	0	1	3	0
SGMW-09B	0	.2	0	0	4	0	1	2	0
SGMW-09C	0	.2	0	0	4	0	0	0	0
SGMW-10A	10.0	16.0	26.0	210	330	800	4	2	0
SGMW-10B	11.2	18.0	25.6	224	370	812	2	5	0
SGMW-10C	0.0	13.2	18.0	150	264	370	2	2	0
SGMW-11A	0.0	21.0	28.3	170	430	800	10	43	2
SGMW-11B	0.1	19.3	26.0	122	380	640	0	27	30
SGMW-11C	49.0	53.4	53.7	980	1088	1074	1	96	108
SGMW-12A	44.4	0.2	50.1	886	4	1002	3	8	101
SGMW-12B	10.3	56.1	55.7	220	1302	1114	0	6	0
SGMW-12C	0.0	.2	0	0	4	0	0	2	0
SGMW-13A	17.4	6.2	7.4	348	124	160	0	4	0
SGMW-13B	0	0	0	0	0	0	2	3	0
SGMW-13C	0.0	.3	0.0	0	0	0	2	4	0
SGMW-14A	0	0	0	0	0	0	2	0	0
SGMW-14B	0	0	0	0	0	0	1	0	0
SGMW-14C	0	0	0	0	0	0	0	4	0
SGMW-15A	0	0	0	0	0	0	0	1	0
SGMW-15B	0	0	0	0	0	0	0	0	0
SGMW-15C	0	0	0	0	0	0	0	1	0
SGMW-16A	0	0	0	0	0	0	0	1	0
SGMW-16B	0	0	0	0	0	0	0	200	0
SGMW-16C	0	0	0.0	230	784	672	0	83	0
SGMW-17A	21.0	38.2	28.0	409	730	824	0	0	0
SGMW-17B	20.3	36.0	28.1	0	0	0	0	0	0
SGMW-17C	0	0	0	0	0	0	0	0	0
SGSM-1A	0	0	0	0	0	0	0	0	0
SGSM-1B	0	0	0	0	0	0	1	0	0
SGSM-1C	0	0	0	0	0	0	0	0	0
SGSM-2A	0	0	0	0	0	0	0	0	0
SGSM-2B	0	0	0	0	0	0	1	0	0
SGSM-2C	0	0	0	0	0	0	0	0	0
SGSM-3A	0	0	0	0	0	0	0	0	0
SGSM-3B	0	0	0	0	0	0	1	0	0
SGSM-4A	0	0	0	0	0	0	0	0	0
SGSM-4B	0	0	0	0	0	0	0	0	0

-- No Measurement was collected due to other work in the area.
Measurements in ( ) are calculated, not measured.

2002 Current Landfill Soil Gas Monitoring Summary

Soil Gas Monitoring Well	Methane (% By Volume) March-02	Methane (% By Volume) June-02	Methane (% By Volume) Sept-02, Oct-02	Methane (% By Volume) December-02	LEL (% By Volume) March-02	LEL (% By Volume) June-02	LEL (% By Volume) Sept-02, Oct-02	LEL (% By Volume) December-02	Hydrogen Sulfide (ppm by volume) March-02	Hydrogen Sulfide (ppm by volume) June-02	Hydrogen Sulfide (ppm by volume) Sept-02, Oct-02	Hydrogen Sulfide (ppm by volume) December-02	Soil Gas Monitoring Well
SGMW-01A	13.8	14.1	0.0	16.0	270	202	102	354	0	7	10	3	SGMW-01A
SGMW-01B	13.7	11.5	0.2	10.9	274	230	164	334	0	1	2	14	SGMW-01B
SGMW-01C	10.0	8.6	5.6	11.0	310	172	110	234	0	1	1	4	SGMW-01C
SGMW-02A	48.0	48.0	48.2	50.6	020	002	004	(1130)	64	132	141	0	SGMW-02A
SGMW-02B	17.1	20.5	34.0	43.7	342	670	002	004	0	2	11	48	SGMW-02B
SGMW-02C	37.6	43.8	52.0	51.7	760	078	(1040)	(1034)	0	24	68	77	SGMW-02C
SGMW-03A	36.5	53.6	64.1	41.4	730	(1072)	(1002)	020	0	148	0	16	SGMW-03A
SGMW-03B	57.0	62.4	60.0	65.0	(1140)	(1240)	(1162)	(1316)	13	18	34	17	SGMW-03B
SGMW-03C	54.1	60.6	68.0	60.0	(1062)	(1172)	(1170)	(1200)	0	0	28	0	SGMW-03C
SGMW-04A	40.6	46.8	56.0	46.1	010	030	(1010)	000	0	1	20	3	SGMW-04A
SGMW-04B	44.6	48.0	51.3	10.2	000	400	(1020)	002	2	11	76	37	SGMW-04B
SGMW-04C	36.5	43.5	44.1	42.5	730	070	000	044	25	30	32	38	SGMW-04C
SGMW-05A	30.1	36.6	38.0	42.6	702	772	770	050	0	44	2	34	SGMW-05A
SGMW-05B	37.4	38.4	42.0	41.2	730	700	040	036	1	13	63	20	SGMW-05B
SGMW-05C	28.0	31.0	31.6	34.2	670	020	032	004	0	10	13	12	SGMW-05C
SGMW-06A	30.7	33.6	40.0	41.5	010	072	000	032	2	3	37	2	SGMW-06A
SGMW-06B	36.1	35.0	40.0	43.1	712	710	012	064	11	22	62	32	SGMW-06B
SGMW-06C	38.3	35.2	38.1	42.0	733	704	702	040	6	10	21	12	SGMW-06C
SGMW-07A	0.2	0.4	0.0	0.0	4	6	0	0	0	1	2	2	SGMW-07A
SGMW-07B	0.2	0.0	0.0	0.0	4	0	0	0	0	1	0	1	SGMW-07B
SGMW-07C	0.2	1.2	0.0	0.0	4	24	0	0	0	1	0	2	SGMW-07C
SGMW-08A	0.2	0	0	0.0	4	0	0	0	1	1	0	0	SGMW-08A
SGMW-08B	0.2	0	0	0.0	4	0	0	0	1	1	0	0	SGMW-08B
SGMW-08C	0.2	0	0	0.0	4	0	0	0	0	3	0	0	SGMW-08C
SGMW-09A	0.1	0	0	0.0	2	0	0	0	0	2	2	2	SGMW-09A
SGMW-09B	0.2	0	0	0.0	4	0	0	0	1	0	1	1	SGMW-09B
SGMW-09C	0.2	0	0	0.0	4	0	0	0	1	2	0	2	SGMW-09C
SGMW-10A	10.0	15.0	25.5	10.0	212	200	610	330	4	13	1	0	SGMW-10A
SGMW-10B	10.7	14.2	20.0	14.0	214	204	400	292	0	0	5	2	SGMW-10B
SGMW-10C	8.0	12.2	17.1	12.2	160	244	342	248	0	3	1	0	SGMW-10C
SGMW-11A	0.2	14.8	20.7	17.0	194	208	334	336	0	88	125	28	SGMW-11A
SGMW-11B	0.1	14.5	24.7	18.4	122	200	464	288	1	40	162	18	SGMW-11B
SGMW-12A	37.0	43.8	60.4	48.0	752	880	1000	970	16	0	0	34	SGMW-12A
SGMW-12B	35.0	38.0	48.0	45.0	710	760	920	894	4	13	32	16	SGMW-12B
SGMW-13A	35.6	43.5	47.3	47.0	710	870	940	950	83	158	70	3	SGMW-13A
SGMW-13A	33.7	42.3	46.2	47.1	674	940	024	042	2	4	22	5	SGMW-13A
SGMW-14A	1.0	4.8	2.8	10.6	28	00	60	212	3	2	0	7	SGMW-14A
SGMW-14B	5.6	11.0	10.4	14.0	112	220	208	208	1	3	8	1	SGMW-14B
SGMW-15A	0.1	0	4.0	8.3	2	0	168	168	0	3	2	4	SGMW-15A
SGMW-15B	0.1	0	44.6	18.1	2	0	080	376	0	4	9	36	SGMW-15B
SGMW-16A	0	0	0.1	0.0	0	0	2	0	0	3	0	1	SGMW-16A
SGMW-16B	0.1	0	0.1	0.0	2	0	2	0	0	4	4	1	SGMW-16B
SGMW-17A	0.1	0	0.2	0.0	2	0	4	0	0	3	3	2	SGMW-17A
SGMW-17B	0.1	0	0.2	0.0	2	0	4	0	0	2	2	4	SGMW-17B
SGMW-18A	0.7	0	0.1	0.0	4	0	2	0	0	4	4	2	SGMW-18A
SGMW-18B	0.4	0	0.3	0.0	6	0	4	0	0	3	3	4	SGMW-18B
SGMW-19A	5.8	15.0	26.6	0.0	116	210	570	0	2	121	19	132	SGMW-19A
SGMW-19B	8.5	18.6	31.2	0.0	166	302	074	0	4	32	30	0	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	5	3	1	4	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	4	2	2	3	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	3	3	2	3	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	3	1	3	2	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	3	3	1	2	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	4	3	2	3	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	3	3	1	3	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	2	2	0	2	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	4	3	1	3	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	2	2	2	2	GSGM-4B

Measurements in ( ) are calculated, not measured

2003 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) April-03	Methane (% By Volume) July-03	Methane (% By Volume) October-03	Methane (% By Volume) December-03	LEL (% By Volume) April-03	LEL (% By Volume) July-03	LEL (% By Volume) October-03	LEL (% By Volume) December-03	Hydrogen Sulfide (ppm by volume) April-03	Hydrogen Sulfide (ppm by volume) July-03	Hydrogen Sulfide (ppm by volume) October-03	Hydrogen Sulfide (ppm by volume) December-03	Soil Gas Monitoring Well
SGMW-01A	17.6	22.1	21.1	21.5	352	444	422	436	2	~	0	~	SGMW-01A
SGMW-01B	18.6	16.2	19.7	19.8	372	324	394	396	3	~	81	~	SGMW-01B
SGMW-01C	18.0	13.9	20.0	17.3	360	282	400	348	3	~	80	~	SGMW-01C
SGMW-02A	58.2	41.2	5.0	22.2	(1164)	324	100	442	14	~	68	~	SGMW-02A
SGMW-02B	55.7	0.0	0.1	0.0	(1140)	0	2	0	32	~	13	~	SGMW-02B
SGMW-02C	59.1	0.0	0	42.7	536	0	0	858	9	~	0	~	SGMW-02C
SGMW-03A	26.8	57.8	55.0	0.0	(1182)	(1156)	(1100)	0	19	~	0	~	SGMW-03A
SGMW-03B	69.1	0.0	54.2	11.7	(1078)	0	(1084)	234	23	~	95	~	SGMW-03B
SGMW-03C	63.9	0.0	0.2	41.0	(1052)	0	4	820	3	~	0	~	SGMW-03C
SGMW-04A	54.1	0.0	0.5	9.4	966	0	10	186	3	~	109	~	SGMW-04A
SGMW-04B	53.9	0.0	0.2	47.0	938	0	4	940	7	~	27	~	SGMW-04B
SGMW-04C	52.6	0.0	0.1	41.5	862	0	2	832	15	~	0	~	SGMW-04C
SGMW-05A	48.3	48.0	54.9	23.4	966	960	(1098)	468	2	~	163	~	SGMW-05A
SGMW-05B	46.9	43.8	53.8	38.8	938	876	(1076)	776	3	~	0	~	SGMW-05B
SGMW-05C	43.1	0.0	41.8	32.3	862	0	836	648	3	~	0	~	SGMW-05C
SGMW-06A	40.3	5.8	15.5		806	116	310	420	1	~	0	~	SGMW-06A
SGMW-06B	42.9	0.0	0.0	20.7	858	0	0	896	3	~	0	~	SGMW-06B
SGMW-06C	43.6	0.0	0.1	44.8	872	0	2	900	2	~	0	~	SGMW-06C
SGMW-07A	0.8	0.0	0.0	45.1	16	0	0	0	1	~	0	~	SGMW-07A
SGMW-07B	0.9	0.0	0.1	0.0	18	0	2	0	2	~	0	~	SGMW-07B
SGMW-07C	4.0	0.0	0.1	0.0	80	0	2	0	0	~	0	~	SGMW-07C
SGMW-08A	0.0	0	0.1	0.0	0	0	2	0	0	~	27	~	SGMW-08A
SGMW-08B	0.0	0	0	0.0	0	0	0	0	0	~	0	~	SGMW-08B
SGMW-08C	0.0	0	0	0.0	0	0	0	0	0	~	0	~	SGMW-08C
SGMW-09A	0	0	0.1	0.0	0	0	2	0	0	~	13	~	SGMW-09A
SGMW-09B	0	0	0	0.0	0	0	0	0	0	~	0	~	SGMW-09B
SGMW-09C	0.1	0	0.1	0.0	2	0	2	0	0	~	0	~	SGMW-09C
SGMW-10A	18.0	22.0	27.9	5.6	360	440	558	112	1	~	0	~	SGMW-10A
SGMW-10B	15.8	17.7	22.0	0.0	316	354	440	0	1	~	0	~	SGMW-10B
SGMW-10C	14.0	16.6	18.2	0.0	280	332	364	0	2	~	0	~	SGMW-10C
SGMW-11A	15.6	29.3	0.4	17.7	312	586	8	356	1	~	0	~	SGMW-11A
SGMW-11B	13.7	26.0	0.1	0.0	274	520	2	0	13	~	0	~	SGMW-11B
SGMW-12A	60.0	47.6	64.7	0.0	(1200)	952	(1294)	0	0	~	0	~	SGMW-12A
SGMW-12B	50.9	0.3	0.5	1.8	(1018)	6	10	36	1	~	0	~	SGMW-12B
SGMW-13A	30.5	0.0	67.2	66.4	610	0	(1344)	1328	1	~	163	~	SGMW-13A
SGMW-13B	0.0	0.8	0.1	0.0	0	16	2	0	1	~	0	~	SGMW-13A
SGMW-14A	29.4	9.8	8.3	0.0	588	196	2	0	10	~	0	~	SGMW-14A
SGMW-14B	0.2	0	0.1	0.1	4	0	2	2	1	~	0	~	SGMW-14B
SGMW-15A	0.1	0	0.1	0.0	2	0	2	0	1	~	54	~	SGMW-15A
SGMW-15B	0	0	0.1	0.0	0	0	2	0	0	~	0	~	SGMW-15B
SGMW-16A	0.1	0	0	0.0	2	0	0	0	1	~	0	~	SGMW-16A
SGMW-16B	0	0	0	0.0	0	0	0	0	3	~	0	~	SGMW-16B
SGMW-17A	0	0	0	0.0	0	0	0	0	3	~	0	~	SGMW-17A
SGMW-17B	0	0	0	0.0	0	0	0	0	2	~	0	~	SGMW-17B
SGMW-18A	0.1	0	0	0.0	2	0	0	0	2	~	0	~	SGMW-18A
SGMW-18B	0	0.1	0.0	0.0	0	2	0	0	0	~	0	~	SGMW-18B
SGMW-19A	41.8	29.1	40.0	27.0	838	582	800	540	0	~	0	~	SGMW-19A
SGMW-19B	44.0	0.7	33.2	29.5	880	14	664	592	39	~	191	~	SGMW-19B
GSGM-1A	0.1	0	0	0	2	0	0	0	0	~	0	~	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	~	0	~	GSGM-4B

Measurements in ( ) are calculated, not measured.
~ H2S pod was not operating correctly.
July measurements taken with a Landtec GEM 500.

2004 Current Landfill Soil Gas Monitoring Summary

Soil Gas Monitoring Well	Methane (% By Volume) 3/10/04	Methane (% By Volume) 6/25/04	Methane (% By Volume) 10/7/04	Methane (% By Volume) 11/30/04	LEL (% By Volume) 3/10/04	LEL (% By Volume) 6/25/04	LEL (% By Volume) 10/7/04	LEL (% By Volume) 11/30/04	Hydrogen Sulfide (ppm by volume) 3/10/04	Hydrogen Sulfide (ppm by volume) 6/25/04	Hydrogen Sulfide (ppm by volume) 10/7/04	Hydrogen Sulfide (ppm by volume) 11/30/04	Soil Gas Monitoring Well
SGMW-01A	16.6	14.4	6.8	6.8	332	288	136	136	150	2	3	1	SGMW-01A
SGMW-01B	15.6	8.6	6.0	2.5	312	172	120	50	23	0	0	0	SGMW-01B
SGMW-01C	14.0	0.2	4.2	6.3	280	4	84	126	34	0	0	0	SGMW-01C
SGMW-02A	34.5	8.6	39.7	2.1	692	172	794	42	191	0	11	0	SGMW-02A
SGMW-02B	22.7	0.6	12.7	0.0	454	12	254	0	177	0	0	0	SGMW-02B
SGMW-02C	44.4	0.0	2	4.6	888	0	4	92	0	0	0	0	SGMW-02C
SGMW-03A	25.4	15.2	4.1	0.0	508	304	82	0	0	0	0	0	SGMW-03A
SGMW-03B	52.1	28.0	14.0	0.1	(1042)	560	280	2	0	0	0	0	SGMW-03B
SGMW-03C	51.3	7.3	1.8	0.0	(1026)	146	36	0	0	0	0	0	SGMW-03C
SGMW-04A	37.5	49.1	3.5	1.8	748	982	70	36	0	0	0	0	SGMW-04A
SGMW-04B	43.0	50.7	23.2	14.4	860	(1014)	454	288	0	0	0	0	SGMW-04B
SGMW-04C	36.2	40.9	21.2	14.5	724	818	424	290	0	0	0	0	SGMW-04C
SGMW-05A	36.1	40.0	13.6	3.7	722	800	272	74	150	0	0	0	SGMW-05A
SGMW-05B	36.8	41.4	25.2	13.6	736	828	504	272	0	0	0	0	SGMW-05B
SGMW-05C	29.0	24.0	18.6	13.6	590	480	372	272	0	0	0	0	SGMW-05C
SGMW-06A	31.8	9.7	3.9	1.8	636	194	78	36	0	0	0	0	SGMW-06A
SGMW-06B	40.4	27.4	20.6	0.3	808	548	412	6	0	0	0	0	SGMW-06B
SGMW-06C	42.1	29.8	4.7	13.2	842	596	94	264	0	0	0	0	SGMW-06C
SGMW-07A	0.2	0.1	0.0	0.0	4	2	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0.5	0.1	0.0	0.0	10	2	0	0	0	0	0	0	SGMW-07B
SGMW-07C	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-07C
SGMW-08A	0.0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0.0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-08C	0.0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-08C
SGMW-09A	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-09C	0.2	0	0	0.0	4	0	0	0	0	0	0	0	SGMW-09C
SGMW-10A	1.9	16.4	2.0	0.0	38	328	40	0	0	1	0	0	SGMW-10A
SGMW-10B	2.4	16.1	12.0	3.9	48	322	240	78	0	2	0	0	SGMW-10B
SGMW-10C	0.0	14.5	10.0	2.4	0	290	200	48	0	0	0	0	SGMW-10C
SGMW-11A	0.0	16.0	5.5	0.0	0	320	110	0	0	2	0	0	SGMW-11A
SGMW-11B	0.0	14.7	10.1	0.3	0	294	202	6	109	0	0	0	SGMW-11B
SGMW-12A	22.5	48.5	9.9	0.0	450	970	198	0	122	21	0	0	SGMW-12A
SGMW-12B	0.0	0.2	7.2	0.0	0	4	144	0	136	0	0	0	SGMW-12B
SGMW-13A	0.0	0.6	1.0	0.0	0	12	20	0	0	0	0	0	SGMW-13A
SGMW-13B	0.0	0.1	0	1.1	0	2	0	22	191	0	0	0	SGMW-13A
SGMW-14A	0.0	0.1	0.0	0.0	0	2	0	0	130	0	0	0	SGMW-14A
SGMW-14B	0	0.1	0	2.3	0	2	0	46	122	0	0	0	SGMW-14B
SGMW-15A	0.0	0.1	0.0	0.0	0	2	0	0	0	0	0	0	SGMW-15A
SGMW-15B	0	0	0	5.8	0	0	0	116	0	0	0	0	SGMW-15B
SGMW-16A	0	0.1	0	0.0	0	2	0	0	0	0	0	0	SGMW-16A
SGMW-16B	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-16B
SGMW-17A	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17B	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-18A
SGMW-18B	0	0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-18B
SGMW-19A	6.0	26.7	25.9	13.0	120	534	518	260	0	0	0	4	SGMW-19A
SGMW-19B	5.8	30.0	27.7	9.2	116	600	554	184	0	0	0	0	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	1	0	0	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4B

Measurements in ( ) are calculated, not measured.
H2S pod suspected of not operating correctlyin March.

2005 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/30/05	Methane (% By Volume) 7/21/05	Methane (% By Volume) 10/21/05	Methane (% By Volume) 12/28/05	LEL (% By Volume) 3/30/05	LEL (% By Volume) 7/21/05	LEL (% By Volume) 10/21/05	LEL (% By Volume) 12/28/05	Hydrogen Sulfide (ppm by volume) 3/30/05	Hydrogen Sulfide (ppm by volume) 7/21/05	Hydrogen Sulfide (ppm by volume) 10/21/05	Hydrogen Sulfide (ppm by volume) 12/28/05	Soil Gas Monitoring Well
SGMW-01A	8.8	5.4	5	6.7	176	108	100	134	1	3	2	2	SGMW-01A
SGMW-01B	3.0	2.9	3	3.8	60	58	60	76	0	0	0	0	SGMW-01B
SGMW-01C	7.5	5.6	5.5	6.1	150	112	110	122	1	0	0	0	SGMW-01C
SGMW-02A	0.3	13.7	1.7	3.0	6	274	34	60	0	0	0	1	SGMW-02A
SGMW-02B	0.2	0.7	27.2	12.4	4	14	544	248	1	0	6	3	SGMW-02B
SGMW-02C	0.3	0.1	247	0.0	6	2	494	0	1	0	0	0	SGMW-02C
SGMW-03A	0.7	36.8	0.7	0.0	14	736	14	0	0	0	0	0	SGMW-03A
SGMW-03B	0.5	2.5	47.6	11.0	10	50	952	220	1	0	2	1	SGMW-03B
SGMW-03C	0.1	0.2	39.9	0.0	2	4	798	0	0	0	1	0	SGMW-03C
SGMW-04A	0.2	10.7	46.2	9.3	4	214	924	186	0	1	0	0	SGMW-04A
SGMW-04B	6.5	25.1	42.4	18.0	130	502	848	360	0	0	1	1	SGMW-04B
SGMW-04C	6.3	0.2	38.2	14.1	126	4	764	282	0	0	0	2	SGMW-04C
SGMW-05A	0.7	14.3	36.6	10.2	14	286	732	204	1	1	1	1	SGMW-05A
SGMW-05B	13.4	21.1	34.6	22.8	268	422	692	456	0	1	0	0	SGMW-05B
SGMW-05C	9.2	18.8	27.3	18.3	184	376	546	366	0	1	0	0	SGMW-05C
SGMW-06A	0.2	2.4	29.7	8.1	4	48	594	162	1	1	0	0	SGMW-06A
SGMW-06B	7.7	24.4	29.7	16.8	154	488	594	336	1	1	0	0	SGMW-06B
SGMW-06C	8.6	24.7	27.2	14.9	172	494	544	298	1	1	1	0	SGMW-06C
SGMW-07A	0.0	0.0	0.0	0.0	0	0	0	0.0	0	0	0	0	SGMW-07A
SGMW-07B	0	0.0	0.0	0.0	0	0	0	0.0	0	0	0	0	SGMW-07B
SGMW-07C	0.0	0.0	0.0	0.0	0	0	0	0.0	1	1	0	0	SGMW-07C
SGMW-08A	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0	SGMW-08A
SGMW-08B	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0	SGMW-08B
SGMW-08C	0.0	0	0	0.0	0	0	0	0.0	0	0	0	0	SGMW-08C
SGMW-09A	0	.2	0	0.0	0	4	0	0.0	0	1	1	0	SGMW-09A
SGMW-09B	0	.2	0	0.0	0	4	0	0.0	1	0	0	0	SGMW-09B
SGMW-09C	0	.2	0	0.0	0	4	0	0.0	0	0	0	0	SGMW-09C
SGMW-10A	0.2	2.7	12.3	0.0	4	54	246	0.0	1	0	1	0	SGMW-10A
SGMW-10B	0.2	12.0	16.7	1.6	4	240	334	32	1	2	0	0	SGMW-10B
SGMW-10C	0.1	1.6	14.3	1.2	2	32	286	24	1	0	1	1	SGMW-10C
SGMW-11A	0.2	6.0	17.2	0.0	4	120	344	0	0	1	20	0	SGMW-11A
SGMW-11B	0.2	13.2	19.6	0.0	4	264	392	0	1	1	4	0	SGMW-11B
SGMW-12A	0.2	3.9	40.1	4.0	4	78	802	80	0	0	51	3	SGMW-12A
SGMW-12B	0.1	0.8	25.7	0.0	2	16	514	0	0	0	0	0	SGMW-12B
SGMW-13A	0.1	6.2	0.1	0.0	2	124	2	0	0	1	1	0	SGMW-13A
SGMW-13B	0.2	.4	.2	0.0	4	8	4	0	0	2	1	0	SGMW-13A
SGMW-14A	0.3	0.1	5.6	0.1	6	2	112	2	0	1	2	0	SGMW-14A
SGMW-14B	0	.2	.2	0.0	0	4	4	0	0	1	1	0	SGMW-14B
SGMW-15A	0.0	.2	0.1	0.0	0	4	2	0	0	0	1	0	SGMW-15A
SGMW-15B	0	.1	.1	0.0	0	2	2	0	0	0	0	0	SGMW-15B
SGMW-16A	0	.2	0	0.0	0	4	0	0	0	1	0	0	SGMW-16A
SGMW-16B	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-16B
SGMW-17A	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17B	0	0	0	0.0	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0	0	0	0.0	0	0	0	0	0	0	1	0	SGMW-18A
SGMW-18B	0	0	0.0	0.0	0	0	0	0	0	0	0	1	SGMW-18B
SGMW-19A	5.6	6.3	29.2	15.7	112	126	584	314	0	1	20	2	SGMW-19A
SGMW-19B	0.0	0.0	31.8	8.1	0	0	636	162	0	0	46	0	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	0	0	1	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	1	0	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4B

Measurements in ( ) are calculated, not measured.

2006 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 2/24/06	Methane (% By Volume) 6/23/06	Methane (% By Volume) 9/28/06	Methane (% By Volume) 12/27/06	LEL (% By Volume) 2/24/06	LEL (% By Volume) 6/23/06	LEL (% By Volume) 9/28/06	LEL (% By Volume) 12/27/06	Hydrogen Sulfide (ppm by volume) 2/24/06	Hydrogen Sulfide (ppm by volume) 6/23/06	Hydrogen Sulfide (ppm by volume) 9/28/06	Hydrogen Sulfide (ppm by volume) 12/27/06	Soil Gas Monitoring Well
SGMW-01A	8.6	11.9	12.5	11.3	174.0	238	250	226	0	0	6	0	SGMW-01A
SGMW-01B	0.0	0.0	11.0	3.1	0	0	220	62	0	0	1	0	SGMW-01B
SGMW-01C	0.0	0.0	10.5	0.2	0	0	210	4	0	0	5	0	SGMW-01C
SGMW-02A	13.9	18.1	46.9	1.4	282.0	362	938	28	0	0	9	0	SGMW-02A
SGMW-02B	6.8	12.8	33.4	0.2	142.0	256	668	4	0	0	27	0	SGMW-02B
SGMW-02C	0.0	0.8	30.5	0.3	0	16	610	6	0	0	0	0	SGMW-02C
SGMW-03A	19.3	26.8	27.0	0.2	386.0	536	540	4	0	0	8	0	SGMW-03A
SGMW-03B	0.0	11.9	48.5	0.1	0	238	970	2	0	0	12	0	SGMW-03B
SGMW-03C	0.0	1.5	45.0	0.3	0	30	900	6	0	0	7	0	SGMW-03C
SGMW-04A	0.0	16.4	52.1	0.2	0	328	1040	4	0	0	1	0	SGMW-04A
SGMW-04B	10.0	31.6	48.8	0.0	200.0	632	976	0	0	0	2	0	SGMW-04B
SGMW-04C	0.0	22.2	42.1	0.0	0	444	842	0	0	0	0	0	SGMW-04C
SGMW-05A	0.9	16.3	44.8	0.0	20.0	326	896	0	0	0	0	0	SGMW-05A
SGMW-05B	1.4	26.3	41.3	0.0	89.0	526	826	0	0	0	3	3	SGMW-05B
SGMW-05C	0.0	20.7	33.8	0.0	0	414	676	0	0	0	1	0	SGMW-05C
SGMW-06A	0.0	11.5	41.5	0.0	0	230	830	0	0	0	1	0	SGMW-06A
SGMW-06B	0.0	21.3	40.3	0.0	0	426	806	0	0	0	2	0	SGMW-06B
SGMW-06C	0.0	21.7	37.3	0.0	0	434	746	0	0	0	0	0	SGMW-06C
SGMW-07A	0.0	0.0	0.3	0.0	0	0	6	0	0	0	0	0	SGMW-07A
SGMW-07B	0.0	0.0	0.3	0.0	0	0	6	0	0	0	0	0	SGMW-07B
SGMW-07C	0.0	0.0	0.3	0.0	0	0	6	0	0	0	0	0	SGMW-07C
SGMW-08A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	2	0	SGMW-08B
SGMW-08C	0.0	0.0	0.0	0.0	0	0	0	0	0	0	2	0	SGMW-08C
SGMW-09A	0.0	0.1	0.0	0.0	0	2	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-09C	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-09C
SGMW-10A	0.0	9.8	15.4	0.0	0	196	308	0	0	0	0	0	SGMW-10A
SGMW-10B	0.0	12.0	18.0	0.0	0	240	360	0	0	0	2	0	SGMW-10B
SGMW-10C	0.0	10.6	16.2	0.0	0	212	324	0	0	0	2	0	SGMW-10C
SGMW-11A	0.0	7.6	15.3	0.0	0	152	306	0	0	0	2	0	SGMW-11A
SGMW-11B	0.0	9.8	14.9	0.0	0	196	298	0	0	0	25	0	SGMW-11B
SGMW-12A	0.0	16.7	41.3	0.0	0	336	826	0	0	0	18	0	SGMW-12A
SGMW-12B	1.1	2.0	0.0	0.0	22	40	0	0	0	0	0	0	SGMW-12B
SGMW-13A	0.0	0.0	0.2	0.0	0	0	4	0	0	0	0	0	SGMW-13A
SGMW-13B	0.0	0.0	0.2	0.0	0	0	4	0	0	0	0	0	SGMW-13A
SGMW-14A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-14A
SGMW-14B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-14B
SGMW-15A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-15A
SGMW-15B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-15B
SGMW-16A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	1	0	SGMW-16A
SGMW-16B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	1	0	SGMW-16B
SGMW-17A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-18A
SGMW-18B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-18B
SGMW-19A	16.7	17.3	16.6	23.9	340	348	332	478	0	0	2	5	SGMW-19A
SGMW-19B	1.7	9.4	18.0	0.0	32	186	360	0	0	0	1	0	SGMW-19B
GSGM-1A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1B
GSGM-1C	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2A
GSGM-2B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-3A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-4B

Measurements in ( ) are calculated, not measured.

2007 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 2/24/07	Methane (% By Volume) 5/17/07	Methane (% By Volume) 9/20/07	Methane (% By Volume) 12/20/07	LEL (% By Volume) 2/24/07	LEL (% By Volume) 5/17/07	LEL (% By Volume) 9/20/07	LEL (% By Volume) 12/20/07	Hydrogen Sulfide (ppm by volume) 2/24/07	Hydrogen Sulfide (ppm by volume) 5/17/07	Hydrogen Sulfide (ppm by volume) 9/20/07	Hydrogen Sulfide (ppm by volume) 12/20/07	Soil Gas Monitoring Well
SGMW-01A	10.0	12.2	5.7	3.1	200.0	244	116.0	62	0.0	1.0	0.0	3.0	SGMW-01A
SGMW-01B	6.4	4.5	6.0	1.6	128	90	118.0	32	0.0	1.0	1.0	0.0	SGMW-01B
SGMW-01C	5.9	0.3	5.5	2.0	118	6	110.0	40	0.0	0.0	1.0	0.0	SGMW-01C
SGMW-02A	0.2	0.4	37.5	17.4	4.0	8	750.0	348	0.0	1.0	1.0	0.0	SGMW-02A
SGMW-02B	0.0	17.6	30.8	10.5	0.0	352	616.0	210	0.0	1.0	1.0	0.0	SGMW-02B
SGMW-02C	0.0	0.4	27.0	1.1	0.0	8	540.0	22	0.0	1.0	1.0	0.0	SGMW-02C
SGMW-03A	0.0	25.1	22.4	0.0	0.0	502	448.0	0.0	0.0	1.0	0.0	0.0	SGMW-03A
SGMW-03B	0.9	0.7	40.0	0.0	18	14	800.0	0.0	0.0	2.0	0.0	0.0	SGMW-03B
SGMW-03C	0.2	0.6	39.7	0.0	4	12	794.0	0.0	0.0	2.0	0.0	0.0	SGMW-03C
SGMW-04A	8.4	0.7	43.7	1.0	168	14	874.0	20	0.0	0.0	3.0	0.0	SGMW-04A
SGMW-04B	17.0	0.7	38.5	3.0	340.0	14	760.0	60	0.0	0.0	1.0	0.0	SGMW-04B
SGMW-04C	12.0	0.7	31.5	0.0	240	14	630.0	0.0	0.0	0.0	1.0	0.0	SGMW-04C
SGMW-05A	10.5	0.6	32.6	0.0	210.0	12	652	0.0	0.0	1.0	0.0	0.0	SGMW-05A
SGMW-05B	17.0	0.7	29.4	1.2	340.0	13	588.0	24	0.0	2.0	1.0	0.0	SGMW-05B
SGMW-05C	13.5	0.7	22.4	0.0	270	13	444.0	0.0	0.0	2.0	1.0	0.0	SGMW-05C
SGMW-06A	11.5	0.8	30.7	0.0	230	16	614	0.0	0.0	1.0	1.0	0.0	SGMW-06A
SGMW-06B	14.3	0.6	29.9	0.0	286	12	598	0.0	0.0	1.0	1.0	0.0	SGMW-06B
SGMW-06C	12.9	0.0	26.4	0.0	258	0.0	528	0.0	0.0	0.0	1.0	0.0	SGMW-06C
SGMW-07A	0.0	0.0	0.1	0.1	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	SGMW-07A
SGMW-07B	0.0	0.0	0.1	0.1	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	SGMW-07B
SGMW-07C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	SGMW-07C
SGMW-08A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	SGMW-08B
SGMW-08C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-08C
SGMW-09A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	SGMW-09A
SGMW-09B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	SGMW-09B
SGMW-09C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-09C
SGMW-10A	0.4	0.0	8.7	0.0	8	0.0	174	0.0	0.0	0.0	2.0	0.0	SGMW-10A
SGMW-10B	0.0	0.0	10.5	0.0	0.0	0.0	210	0.0	0.0	0.0	1.0	0.0	SGMW-10B
SGMW-10C	0.0	0.0	9.0	0.0	0.0	0.0	180	0.0	0.0	0.0	8.0	0.0	SGMW-10C
SGMW-11A	0.0	0.0	8.5	0.0	0.0	0.0	170	0.0	0.0	0.0	2.0	0.0	SGMW-11A
SGMW-11B	0.0	0.0	8.7	0.0	0.0	0.0	174	0.0	0.0	0.0	22.0	0.0	SGMW-11B
SGMW-12A	0.0	0.0	8.1	27.5	0.0	0.0	162	550	0.0	0.0	2.0	39.0	SGMW-12A
SGMW-12B	0.0	0.0	6.1	27.5	0.0	0.0	172	550	0.0	0.0	2.0	0.0	SGMW-12B
SGMW-13A	0.0	0.3	6.0	0.0	0.0	0.0	120	0.0	0.0	0.0	1.0	0.0	SGMW-13A
SGMW-13B	0.0	0.0	4.0	0.0	0.0	0.0	80	0.0	0.0	0.0	1.0	0.0	SGMW-13A
SGMW-14A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-14A
SGMW-14B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-14B
SGMW-15A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-15A
SGMW-15B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-15B
SGMW-16A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-16A
SGMW-16B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-16B
SGMW-17A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-17A
SGMW-17B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-17B
SGMW-18A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-18A
SGMW-18B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-18B
SGMW-19A	2.5	4.0	27.0	0.0	50	80	540	0.0	0.0	1.0	29.0	0.0	SGMW-19A
SGMW-19B	0.0	0.0	19.2	0.0	0.0	0.0	384	0.0	0.0	0.0	17.0	0.0	SGMW-19B
GSGM-1A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1A
GSGM-1B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1B
GSGM-1C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1C
GSGM-2A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2A
GSGM-2B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2B
GSGM-2C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2C
GSGM-3A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3A
GSGM-3B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3B
GSGM-4A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4A
GSGM-4B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4B

Measurements in ( ) are calculated, not measured.

2008 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/24/2008	Methane (% By Volume) 7/29/2008	Methane (% By Volume) 9/30/2008	Methane (% By Volume) 12/9/2008	LEL (% By Volume) 3/24/2008	LEL (% By Volume) 7/29/2008	LEL (% By Volume) 9/30/2008	LEL (% By Volume) 12/9/2008	Hydrogen Sulfide (ppm by volume) 3/24/2008	Hydrogen Sulfide (ppm by volume) 7/29/2008	Hydrogen Sulfide (ppm by volume) 9/30/2008	Hydrogen Sulfide (ppm by volume) 12/9/2008	Soil Gas Monitoring Well
SGMW-01A	10.8	3	8.8	11.2	220	96	176	224	3	2	2	0	SGMW-01A
SGMW-01B	9.9	2.9	6.5	11.7	198	58	130	234	0	0.0	0.0	4.0	SGMW-01B
SGMW-01C	9.4	5.7	6.2	9.8	190	112	124	196	0	0	0	4	SGMW-01C
SGMW-02A	34.2	39.1	42.5	37.3	680	788	850	746	11	16	0	0	SGMW-02A
SGMW-02B	3.1	47.2	45	44.3	62	944	900	886	1	12	20	19	SGMW-02B
SGMW-02C	3.2	49.9	52.5	53.3	64	998	1050	1066	1	1	1	3	SGMW-02C
SGMW-03A	13.2	49.1	44	30	264	960	880	600	1	11	6	1	SGMW-03A
SGMW-03B	55.5	53.6	57.8	60.6	1110	1072	1156	142	15	23	36	14	SGMW-03B
SGMW-03C	48.5	51.6	55.9	57.3	970	1032	1118	1146	1	13	26	63	SGMW-03C
SGMW-04A	14.5	43.8	50.6	44.5	290	882	1012	890	1	5	8	0	SGMW-04A
SGMW-04B	40.6	43.4	50.2	44.1	812	870	1004	882	5	16	20	6	SGMW-04B
SGMW-04C	32.7	40.1	45.8	36.1	654	756	916	722	2	0	1	3	SGMW-04C
SGMW-05A	30	36.5	43.7	38.8	600	728	874	776	4	12	5	4	SGMW-05A
SGMW-05B	30.7	35.8	39.7	36.1	614	708	794	722	3	2	6	3	SGMW-05B
SGMW-05C	24	24.6	31.8	28.3	480	502	636	566	3	0	3	2	SGMW-05C
SGMW-06A	18.9	25.3	39.9	40.4	378	510	798	808	0	0	7	0	SGMW-06A
SGMW-06B	30.9	36.4	39.9	40.2	618	724	798	804	1	2	5	7	SGMW-06B
SGMW-06C	28	33.7	37.7	37.3	560	670	754	746	3	0	1	3	SGMW-06C
SGMW-07A	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-07B
SGMW-07C	0	0.3	0	0	0	6	0	0	0	0	0	0	SGMW-07C
SGMW-08A	0	0.3	0	0	0	6	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0.3	0	0	0	6	0	0	0	0	0	0	SGMW-08B
SGMW-08C	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-08C
SGMW-09A	0	0.3	0	0	0	6	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0.4	0	0	0	8	0	0	0	0	0	0	SGMW-09B
SGMW-09C	0	0.3	0	0	0	6	0	0	0	0	0	0	SGMW-09C
SGMW-10A	0	12.2	22.5	8.4	0	244	450	168	0	9	19	1	SGMW-10A
SGMW-10B	0	9.9	19.1	10.3	0	200	382	206	0	0	9	2	SGMW-10B
SGMW-10C	0	9.4	15.7	8.3	0	92	314	166	0	0	13	7	SGMW-10C
SGMW-11A	4	14.9	23	11.9	80	300	450	238	5	23	2	4	SGMW-11A
SGMW-11B	2.3	13.7	21.6	6.9	46	274	430	138	0	3	20	0	SGMW-11B
SGMW-12A	32.1	43.4	52.5	47.1	642	868	1050	942	39	65	92	3	SGMW-12A
SGMW-12B	30.6	32.9	43.7	41.3	612	658	874	826	0	1	10	2	SGMW-12B
SGMW-13A	0	0.5	0.6	0.2	0	10	13	4	0	2	0	0	SGMW-13A
SGMW-13B	0	31.9	42.8	36.7	0	648	856	734	0	2	29	4	SGMW-13A
SGMW-14A	0	0.7	2.1	0.5	0	14	42	10	0	0	0	0	SGMW-14A
SGMW-14B	0	0.3	3	0.5	0	6	61	11	0	0	0	0	SGMW-14B
SGMW-15A	0	0.2	2.2	0	0	4	45	0	0	0	0	0	SGMW-15A
SGMW-15B	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-15B
SGMW-16A	0	0.2	0	0	0	4	0	0	1	0	0	0	SGMW-16A
SGMW-16B	0	0.5	0	0	0	10	0	0	0	0	0	0	1
SGMW-17A	0	0	0	0	0	0	0	0	1	0	0	0	SGMW-17A
SGMW-17B	0	0.4	0	0	0	8	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-18A
SGMW-18B	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-18B
SGMW-19A	14.5	7.5	32.4	0	290	154	648	312	11	3	30	1	SGMW-19A
SGMW-19B	11.5	8.2	28	0	230	164	560	0	8	2	0	0	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4B

Measurements in ( ) are calculated, not measured.

2009 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/18/2009	Methane (% By Volume) 7/28/2009	Methane (% By Volume) 11/5/2009	Methane (% By Volume) 12/15/2009	LEL (% By Volume) 3/18/2009	LEL (% By Volume) 7/28/2009	LEL (% By Volume) 11/5/2009	LEL (% By Volume) 12/15/2009	Hydrogen Sulfide (ppm by volume) 3/18/2009	Hydrogen Sulfide (ppm by volume) 7/28/2009	Hydrogen Sulfide (ppm by volume) 11/5/2009	Hydrogen Sulfide (ppm by volume) 12/15/2009	Soil Gas Monitoring Well
SGMW-01A	12.6	16.7	15	19.4	>100	>100	>100	>100	0	0	1	3	SGMW-01A
SGMW-01B	12.3	15.4	14.3	19.2	>100	>100	>100	>100	0	0.0	4.0	3.0	SGMW-01B
SGMW-01C	10	13.2	12.3	17.2	>100	>100	>100	>100	0	0	3	1	SGMW-01C
SGMW-02A	50	48.4	50.1	50.9	>100	>100	>100	>100	0	0	0	0	SGMW-02A
SGMW-02B	48.8	55.2	40.2	10.6	>100	>100	>100	>100	8	18	0	0	SGMW-02B
SGMW-02C	50.8	57.8	56.5	59.3	>100	>100	>100	>100	1	7	0	0	SGMW-02C
SGMW-03A	28.9	31.8	270	14.3	>100	>100	>100	>100	0	0	6	0	SGMW-03A
SGMW-03B	55.9	67.5	65.9	72.2	>100	>100	>100	>100	12	25	21	20	SGMW-03B
SGMW-03C	54.7	65.6	59.5	0.2	>100	>100	>100	3	26	32	67	0	SGMW-03C
SGMW-04A	42.1	48.5	44.4	44.9	>100	>100	>100	>100	1	0	2	0	SGMW-04A
SGMW-04B	39.9	53.3	49.1	52.7	>100	>100	>100	>100	4	7	4	7	SGMW-04B
SGMW-04C	31.9	51.9	38.9	48.3	>100	>100	>100	>100	5	3	1	2	SGMW-04C
SGMW-05A	38.1	46.2	43.1	45.2	>100	>100	>100	>100	3	0	4	1	SGMW-05A
SGMW-05B	33.8	43.3	38.8	44.5	>100	>100	>100	>100	3	4	5	7	SGMW-05B
SGMW-05C	26.8	37.1	30.7	0	>100	>100	>100	0	3	3	3	0	SGMW-05C
SGMW-06A	39	42.3	42.6	9.8	>100	>100	>100	>100	0	0	0	0	SGMW-06A
SGMW-06B	39.2	43	42.7	0	>100	>100	>100	0	3	4	6	0	SGMW-06B
SGMW-06C	37.7	42.2	40.6	0	>100	>100	>100	0	3	3	4	0	SGMW-06C
SGMW-07A	0	0.5	0	0	0	10	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-07B
SGMW-07C	0	0.9	0	0	0	18	0	0	0	0	0	0	SGMW-07C
SGMW-08A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-08C	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08C
SGMW-09A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-09C	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09C
SGMW-10A	1.5	22.7	13.2	0.5	31	>100	>100	10	0	14	5	0	SGMW-10A
SGMW-10B	4.6	19.6	16.1	0.1	93	>100	>100	2	3	3	2	0	SGMW-10B
SGMW-10C	4	17.4	11.2	0.2	80	>100	>100	1	3	4	0	0	SGMW-10C
SGMW-11A	4.5	22.1	17.6	14.7	90	>100	>100	>100	0	20	10	2	SGMW-11A
SGMW-11B	4	21.6	13.3	10.9	80	>100	>100	>100	0	9	1	1	SGMW-11B
SGMW-12A	45.5	51.8	48.7	52.4	>100	>100	>100	>100	24	72	21	15	SGMW-12A
SGMW-12B	39.6	49	51.7	47.3	>100	>100	>100	>100	0	16	0	3	SGMW-12B
SGMW-13A	0	0.5	1	0.1	0	10	21	2	0	3	0	0	SGMW-13A
SGMW-13B	0	42.6	0	0.1	0	>100	1	2	0	4	0	0	SGMW-13A
SGMW-14A	2.8	14	6.2	1.1	57	>100	>100	22	0	3	0	0	SGMW-14A
SGMW-14B	0	0	0	0	0	0	1	0	0	0	0	0	SGMW-14B
SGMW-15A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-15A
SGMW-15B	0	0	0	0.1	0	0	0	2	0	0	0	0	SGMW-15B
SGMW-16A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-16A
SGMW-16B	0	0	0	0.1	0	0	0	2	0	0	0	0	SGMW-16B
SGMW-17A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-18A
SGMW-18B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-18B
SGMW-19A	14.4	44.9	25.9	33.6	>100	>100	>100	>100	0	31	7	15	SGMW-19A
SGMW-19B	5.9	46.3	26.9	30.6	>100	>100	>100	>100	2	1	12	4	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-4B

2010 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/18/10	Methane (% By Volume) 6/9/10	Methane (% By Volume) 9/8/10	Methane (% By Volume) 12/9/10	LEL (% By Volume) 3/18/10	LEL (% By Volume) 6/9/10	LEL (% By Volume) 9/8/10	LEL (% By Volume) 12/9/10	Hydrogen Sulfide (ppm by volume) 3/18/10	Hydrogen Sulfide (ppm by volume) 6/9/10	Hydrogen Sulfide (ppm by volume) 9/8/10	Hydrogen Sulfide (ppm by volume) 12/9/10	Soil Gas Monitoring Well
SGMW-01A	24.1	24.0	14.1	12	>100	>100	>100	>100	0	0	1	1	SGMW-01A
SGMW-01B	24.0	0.0	11.9	10.6	>100	0	>100	>100	3	0.0	1.0	1.0	SGMW-01B
SGMW-01C	23.1	0.0	10.6	8.6	>100	0	>100	>100	5	0	10	0	SGMW-01C
SGMW-02A	55.9	48.2	47.8	41.7	>100	>100	>100	>100	0	0	32	0	SGMW-02A
SGMW-02B	24.9	55.2	55.5	42.5	>100	>100	>100	>100	3	4	20	6	SGMW-02B
SGMW-02C	56.5	0.0	56.9	45.7	>100	0	>100	>100	2	0	1	1	SGMW-02C
SGMW-03A	27.2	47.9	46.5	28.9	>100	>100	>100	>100	1	6	18	0	SGMW-03A
SGMW-03B	63.8	50.4	58.4	55.4	>100	>100	>100	>100	24	0	36	15	SGMW-03B
SGMW-03C	59.5	0.0	58.3	48.3	>100	0	>100	>100	1	0	29	0	SGMW-03C
SGMW-04A	30.9	24.7	48.2	17	>100	>100	>100	>100	0	0	11	0	SGMW-04A
SGMW-04B	49.7	29.4	49.2	35.4	>100	>100	>100	>100	5	0	10	4	SGMW-04B
SGMW-04C	46.6	0.0	45.6	22.2	>100	0	>100	>100	5	0	7	0	SGMW-04C
SGMW-05A	42.9	31.3	40.4	16.1	>100	>100	>100	>100	3	2	11	2	SGMW-05A
SGMW-05B	42.3	39.3	36.9	24.1	>100	>100	>100	>100	5	3	10	2	SGMW-05B
SGMW-05C	37.3	33.2	30.8	20.5	>100	>100	>100	>100	4	4	7	0	SGMW-05C
SGMW-06A	45.3	2.9	42.7	20.8	>100	59	>100	>100	0	0	1	0	SGMW-06A
SGMW-06B	45.0	45.1	41.5	37.4	>100	>100	>100	>100	3	5	10	4	SGMW-06B
SGMW-06C	45.1	0.1	40.8	35.5	>100	3	>100	>100	3	0	9	1	SGMW-06C
SGMW-07A	0.0	0.2	0.0	0	0	4	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-07B
SGMW-07C	0.1	0.6	0.0	0	2	12	0	0	0	0	0	0	SGMW-07C
SGMW-08A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-08C	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-08C
SGMW-09A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-09C	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-09C
SGMW-10A	11.1	16.2	18.8	0	>100	>100	>100	0	1	5	17	0	SGMW-10A
SGMW-10B	10.5	14.2	16.2	9	>100	>100	>100	19	3	3	6	0	SGMW-10B
SGMW-10C	9.4	0.0	14.2	2.1	>100	0	>100	41	0	0	11	3	SGMW-10C
SGMW-11A	11.8	16.0	16.8	4.2	>100	>100	>100	8.4	2	10	17	5	SGMW-11A
SGMW-11B	10.1	0.0	18.8	0.7	>100	0	>100	14	0	0	35	5	SGMW-11B
SGMW-12A	51.5	51.9	37.8	28.6	>100	>100	>100	>100	23	67	102	4	SGMW-12A
SGMW-12B	6.0	0.0	1.7	21.3	12	0	33	>100	0	0	1	0	SGMW-12B
SGMW-13A	0.0	0.0	0.6	0.1	0	0	12	2	0	0	0	0	SGMW-13A
SGMW-13B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-13A
SGMW-14A	2.9	0.0	0.0	0	58	0	0	0	0	0	0	0	SGMW-14A
SGMW-14B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-14B
SGMW-15A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-15A
SGMW-15B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-15B
SGMW-16A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-16A
SGMW-16B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-16B
SGMW-17A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-18A
SGMW-18B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	SGMW-18B
SGMW-19A	41.9	28.9	10.1	9.4	>100	>100	>100	>100	13	21	10	0	SGMW-19A
SGMW-19B	5.5	0.0	14.0	17.9	>100	0	>100	>100	0	0	0	0	SGMW-19B
GSGM-1A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1B
GSGM-1C	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2A
GSGM-2B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-3A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-4B

2011 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/3/11	Methane (% By Volume) 6/7/11	Methane (% By Volume) 9/27/11	Methane (% By Volume) 12/15/11	LEL (% By Volume) 3/3/11	LEL (% By Volume) 6/7/11	LEL (% By Volume) 9/27/11	LEL (% By Volume) 12/15/11	Hydrogen Sulfide (ppm by volume) 3/3/11	Hydrogen Sulfide (ppm by volume) 6/7/11	Hydrogen Sulfide (ppm by volume) 9/27/11	Hydrogen Sulfide (ppm by volume) 12/15/11	Soil Gas Monitoring Well
SGMW-01A	12.2	10.6	10.1	15.2	>100	>100	>100	>100	3.0	0.0	0.0	4	SGMW-01A
SGMW-01B	8.9	10.1	9.2	14.6	>100	>100	>100	>100	0.0	2.0	0.0	3.0	SGMW-01B
SGMW-01C	9.1	8.9	8.3	12.7	>100	>100	>100	>100	0.0	3	0.0	1	SGMW-01C
SGMW-02A	28.3	43.6	45.2	17.3	>100	>100	>100	>100	1.0	4	0.0	1	SGMW-02A
SGMW-02B	2.2	43.3	50.8	51.8	44	>100	>100	>100	0.0	15	30	27	SGMW-02B
SGMW-02C	33.8	45.2	48.6	56.8	>100	>100	>100	>100	4.0	3	0.0	4	SGMW-02C
SGMW-03A	1.9	39.4	48.1	25.2	38	>100	>100	>100	0	7	9.0	10	SGMW-03A
SGMW-03B	44.7	52.8	42.5	50	>100	>100	>100	>100	28	41	0.0	20	SGMW-03B
SGMW-03C	35.8	53.4	0	48.3	>100	>100	0	>100	0.0	60	0.0	39	SGMW-03C
SGMW-04A	3.5	42.2	49.6	24.4	70	>100	>100	>100	0.0	14	7.0	0	SGMW-04A
SGMW-04B	28.3	41.1	40.1	32.5	>100	>100	>100	>100	2.0	6	1.0	10	SGMW-04B
SGMW-04C	18.4	35.4	0	29.2	>100	>100	0	>100	9.0	7	0.0	5	SGMW-04C
SGMW-05A	3.3	33.5	39.5	36.3	67	>100	>100	>100	0.0	9	9.0	1	SGMW-05A
SGMW-05B	2.0	30.5	37.6	31.1	42	>100	>100	>100	0.0	6	1.0	7	SGMW-05B
SGMW-05C	16.5	24.3	0	25.1	>100	>100	0	>100	1.0	4	0.0	4	SGMW-05C
SGMW-06A	0.1	34.2	1.9	31.1	3	>100	39	>100	0.0	0.0	0.0	0	SGMW-06A
SGMW-06B	31.2	33.5	19.6	33.8	>100	>100	>100	>100	1.0	10	0.0	9	SGMW-06B
SGMW-06C	29.7	31.4	33	32.8	>100	>100	>100	>100	5.0	6	0.0	5	SGMW-06C
SGMW-07A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07A
SGMW-07B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07B
SGMW-07C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07C
SGMW-08A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08B
SGMW-08C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08C
SGMW-09A	0.1	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09A
SGMW-09B	0.1	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09B
SGMW-09C	0.1	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09C
SGMW-10A	0.1	10.5	22.8	18	2	>100	>100	>100	0.0	3	27	5	SGMW-10A
SGMW-10B	1.0	12.5	19.2	16.6	20	>100	>100	>100	0.0	4	10	7	SGMW-10B
SGMW-10C	0.3	10.7	16.0	14.8	6	>100	>100	>100	0.0	3	7	7	SGMW-10C
SGMW-11A	0.1	11.2	23.8	19.8	2	>100	>100	>100	1.0	2	20	5	SGMW-11A
SGMW-11B	0.0	8.3	22.1	15.2	0	>100	>100	>100	0.0	2	18	1	SGMW-11B
SGMW-12A	23.0	39.5	49.5	55	>100	>100	>100	>100	0.0	95	11.2	100	SGMW-12A
SGMW-12B	21.3	31.1	41.3	44.7	>100	>100	>100	>100	0.0	15	17	3	SGMW-12B
SGMW-13A	0.0	0.0	0.1	0.0	0.0	0.0	3	0.0	0.0	1	0	0.0	SGMW-13A
SGMW-13B	0.0	0.0	39.1	0.0	0.0	0.0	>100	0.0	0.0	1	27	0.0	SGMW-13A
SGMW-14A	0.0	0.0	0.3	0.0	0.0	0.0	8	0.0	0.0	2	0.0	0.0	SGMW-14A
SGMW-14B	0.1	0.0	2.1	0.0	2.0	0.0	42	0.0	0.0	1	0.0	0.0	SGMW-14B
SGMW-15A	0.0	0.0	1.1	0.0	0.0	0.0	23	0.0	0.0	1	0.0	0.0	SGMW-15A
SGMW-15B	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-15B
SGMW-16A	1.0	0.0	0.0	0.0	20	0.0	0	0.0	1.0	0.0	0.0	0.0	SGMW-16A
SGMW-16B	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	1	0.0	0.0	SGMW-16B
SGMW-17A	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-17A
SGMW-17B	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-17B
SGMW-18A	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-18A
SGMW-18B	0.0	0.0	0.0	0.1	0.0	0.0	0	2	0.0	0.0	0.0	0.0	SGMW-18B
SGMW-19A	1.0	14.8	28.5	21.4	3.0	>100	>100	>100	0.0	1	0.0	3	SGMW-19A
SGMW-19B	0.3	12.2	27.2	0.1	6.0	>100	>100	0.0	0.0	1	0.0	0.0	SGMW-19B
GSGM-1A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1A
GSGM-1B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1B
GSGM-1C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1C
GSGM-2A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2A
GSGM-2B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2B
GSGM-2C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2C
GSGM-3A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3A
GSGM-3B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3B
GSGM-4A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4A
GSGM-4B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4B

2012 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/7/12	Methane (% By Volume) 6/7/12	Methane (% By Volume) 9/7/12	Methane (% By Volume) 12/5/12	LEL (% By Volume) 3/7/12	LEL (% By Volume) 6/7/12	LEL (% By Volume) 9/7/12	LEL (% By Volume) 12/5/12	Hydrogen Sulfide (ppm by volume) 3/7/12	Hydrogen Sulfide (ppm by volume) 6/7/12	Hydrogen Sulfide (ppm by volume) 9/7/12	Hydrogen Sulfide (ppm by volume) 12/5/12	Soil Gas Monitoring Well
SGMW-01A	15.5	13.6	16.4	15.7	>100	>100	>100	>100	2.0	0.0	0.0	0.0	SGMW-01A
SGMW-01B	13.8	13.0	13.4	11.7	>100	>100	>100	>100	2.0	1.0	1.0	0.0	SGMW-01B
SGMW-01C	11.3	11.2	5.2	12.7	>100	>100	>100	>100	2.0	0	0.0	0.0	SGMW-01C
SGMW-02A	50.9	48.2	49.5	53.8	>100	>100	>100	>100	0.0	0	0.0	0.0	SGMW-02A
SGMW-02B	48.1	49.7	50.2	51.5	>100	>100	>100	>100	7.0	10	7	10	SGMW-02B
SGMW-02C	48.3	50.5	10.5	52.1	>100	>100	>100	>100	4.0	5	0.0	3	SGMW-02C
SGMW-03A	35.2	52.3	55.9	46.2	>100	>100	>100	>100	1	12	10.0	8	SGMW-03A
SGMW-03B	53.4	53.1	55.4	55.2	>100	>100	>100	>100	16	26	2.0	20	SGMW-03B
SGMW-03C	50.4	53.0	26.7	54.8	>100	>100	>100	>100	12.0	24	1.0	24	SGMW-03C
SGMW-04A	27.5	42.1	59.7	42.9	>100	>100	>100	>100	0.0	11	5.0	0.0	SGMW-04A
SGMW-04B	33.6	42.7	52.2	42.7	>100	>100	>100	>100	4.0	5	7.0	7	SGMW-04B
SGMW-04C	23.5	35.7	47.8	32.9	>100	>100	>100	>100	6.0	5	5.0	5	SGMW-04C
SGMW-05A	15.1	34.3	43.4	36.3	>100	>100	>100	>100	0.0	6	8.0	0.0	SGMW-05A
SGMW-05B	22.8	32.7	39.6	19.9	>100	>100	>100	>100	1.0	4	8.0	0.0	SGMW-05B
SGMW-05C	19.1	24.9	43.5	0.0	>100	>100	>100	0.0	3.0	2	9.0	0.0	SGMW-05C
SGMW-06A	30.6	25.0	4.7	0.0	>100	>100	93	0.0	0.0	0.0	0.0	0.0	SGMW-06A
SGMW-06B	31.9	32.7	38.5	0.0	>100	>100	>100	0.0	2.0	6	11.0	0.0	SGMW-06B
SGMW-06C	30.2	30.3	35.9	0.0	>100	>100	>100	0.0	3.0	3	4.0	0.0	SGMW-06C
SGMW-07A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07A
SGMW-07B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07B
SGMW-07C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07C
SGMW-08A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08B
SGMW-08C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08C
SGMW-09A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09A
SGMW-09B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09B
SGMW-09C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09C
SGMW-10A	0.7	12.9	0.0	8.9	14	>100	0	>100	0.0	11	0.0	0.0	SGMW-10A
SGMW-10B	5.8	15.4	22.8	13.6	>100	>100	>100	>100	2.0	6	9	0.0	SGMW-10B
SGMW-10C	5.4	13.0	19.2	0.0	>100	>100	>100	0	4.0	3	6	0.0	SGMW-10C
SGMW-11A	7.2	16.7	29.9	13.7	>100	>100	>100	>100	1.0	16	6	7	SGMW-11A
SGMW-11B	2.7	15.7	27.6	0.0	55	>100	>100	0	0.0	0	15	0.0	SGMW-11B
SGMW-12A	37.8	46.2	53.6	48.9	>100	>100	>100	>100	13.0	29	29	10	SGMW-12A
SGMW-12B	38.7	40.1	48.9	43	>100	>100	>100	>100	2.0	1	3	0.0	SGMW-12B
SGMW-13A	0.0	0.2	19.8	30.3	0.0	4.0	>100	>100	0.0	0.0	2	0.0	SGMW-13A
SGMW-13B	30.4	37.6	49.8	26.9	>100	>100	>100	>100	3.0	1	5	0.0	SGMW-13A
SGMW-14A	0.8	0.0	1.6	0.0	16.0	0.0	>100	0.0	0.0	0.0	0.0	0.0	SGMW-14A
SGMW-14B	0.0	0.9	0.8	1.6	0.0	18.0	17	81.0	0.0	0.0	0.0	0.0	SGMW-14B
SGMW-15A	0.0	0.0	3.4	0.0	0.0	0.0	68	0.0	0.0	0.0	2.0	0.0	SGMW-15A
SGMW-15B	0.0	0.0	0.0	0.3	0.0	0.0	0	8.0	0.0	0.0	0.0	0.0	SGMW-15B
SGMW-16A	0.0	0.0	0.0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-16A
SGMW-16B	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-16B
SGMW-17A	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-17A
SGMW-17B	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-17B
SGMW-18A	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	SGMW-18A
SGMW-18B	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0.0	SGMW-18B
SGMW-19A	4.2	23.2	36.4	17.5	84.0	>100	>100	>100	1.0	11	26.0	1	SGMW-19A
SGMW-19B	1.6	30.8	27.3	0.0	33.0	>100	>100	0.0	0.0	14	0.0	0.0	SGMW-19B
GSGM-1A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1A
GSGM-1B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1B
GSGM-1C	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-1C
GSGM-2A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2A
GSGM-2B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2B
GSGM-2C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-2C
GSGM-3A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3A
GSGM-3B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-3B
GSGM-4A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4A
GSGM-4B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	GSGM-4B

1996/97 FORMER LANDFILL AREA SOIL GAS MONITORING SUMMARY TABLE

1998 Environmental Monitoring Report

Current and Former Landfills Brookhaven National Laboratory

Soil Gas Monitoring Well	Methane (% By Volume)				Hydrogen Sulfide (ppm by volume)			
	Aug-96	Mar-97	Aug-97	Nov-97	Aug-96	Mar-97	Aug-97	Nov-97
SGMW-01A	0	0	0.3	0	◇	6	-5	0
SGMW-01B	0	0	0.3	0	◇	4	-5	0
SGMW-02A	0	0	0	0	◇	6	-2	0
SGMW-02B	0	0	0	0	◇	3	-2	0
SGMW-03A	0	0	0	0	◇	1	-4	0
SGMW-03B	0	0	0	0	◇	5	-4	0
SGMW-04A	0	0	0.2	0.1	◇	7	-5	8
SGMW-04B	0	0	0.2	0.1	◇	7	-5	9
SGMW-05A	0	0	0	0	◇	7	-2	12
SGMW-05B	0	0	0	0	◇	4	-2	0
SGMW-06A	0	0	0	0	◇	7	-4	0
SGMW-06B	0	0	0.1	0	◇	4	-4	0
SGMW-07A	0	0	◇	◇	◇	7	◇	◇
SGMW-07B	0	0	◇	◇	◇	7	◇	◇
SGMW-08A	0	0	0.1	0	◇	6	-5	0
SGMW-08B	0	0	0.1	0	◇	6	-1	0
SGMW-09A	0	0	0	0	◇	5	-2	1
SGMW-09B	0	0	0	0	◇	4	-2	0
SGMW-10A	0	0	0	0	◇	7	-1	1
SGMW-10B	0	0	0	0	◇	5	-2	0
SGMW-11A	0	0	0.3	0	◇	9	-5	0
SGMW-11B	0	0	0	0	◇	4	-1	2
SGMW-12A	0	0	0.3	0	◇	9	-5	0
SGMW-12B	0	0	0.3	0	◇	5	-5	0

◇ No measurement taken.

Negative numbers reported are due to equipment problems.

Brookhaven National Laboratory

1998 Landfills Environmental Monitoring Report

1998 Former Landfill Area Soil Gas Monitoring Summary Table

oil Gas oring Well	Methane (% By Volume) February-98	Methane (% By Volume) May-98	Methane (% By Volume) August-98	Methane (% By Volume) December-98
V-01A	0	0	0	0
V-01B	0.1	0	0	0
V-02A	0	0	0	0
V-02B	0.1	0	0	0
V-03A	0	0	0	0
V-03B	0	0	0	0.1
V-04A	0	0.1	0	0
V-04B	0	0	0	0
V-05A	0	0	0	0
V-05B	0	0	0	0
V-06A	0	0	0	0
V-06B	0	0	0	0
V-07A	<>	<>	<>	<>
V-07B	<>	<>	<>	<>
V-08A	0	0	0	0
V-08B	0	0	0	0
V-09A	0	0	0	0
V-09B	0	0	0	0
-10A	0	0	0	0
-10B	0	0	0	0
-11A	0	0	0	0
-11B	0	0	0	0
-12A	0	0	0	0
-12B	0	0	0	0

SGM07 was not accessible

Hydrogen sulfide (ppm By Volume) February-98	Hydrogen sulfide (ppm By Volume) May-98	Hydrogen sulfide (ppm By Volume) August-98	Hydrogen sulfide (ppm By Volume) December-98	Soil Gas Monitoring Well
1	0	1	0	SGMW-01A
1	0	0	0	SGMW-01B
6	0	0	0	SGMW-02A
6	1	0	0	SGMW-02B
0	0	1	1	SGMW-03A
3	0	2	0	SGMW-03B
0	2	0	1	SGMW-04A
1	0	0	0	SGMW-04B
0	0	3	0	SGMW-05A
0	0	1	0	SGMW-05B
2	0	0	1	SGMW-06A
0	0	0	0	SGMW-06B
<>	<>	<>	<>	SGMW-07A
<>	<>	<>	<>	SGMW-07B
1	0	0	0	SGMW-08A
0	0	4	0	SGMW-08B
1	0	1	1	SGMW-09A
0	0	3	0	SGMW-09B
0	0	4	0	SGMW-10A
0	0	3	0	SGMW-10B
0	0	0	2	SGMW-11A
1	0	1	0	SGMW-11B
0	0	2	1	SGMW-12A
0	0	1	0	SGMW-12B

Brookhaven National Laboratory
1999 Landfills Environmental Monitoring Report
1999 Former Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) June-99	Methane (% By Volume) October-99	Methane (% By Volume) December-99	LEL (% By Volume) June-99	LEL (% By Volume) October-99	LEL (% By Volume) December-99	Hydrogen sulfide (ppm By Volume) June-99	Hydrogen sulfide (ppm By Volume) October-99	Hydrogen sulfide (ppm By Volume) December-99	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	0	0	1	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0.1	0	0	2	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	3	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	1	SGMW-06A
SGMW-06B	0	0	0	0	0	0	0	0	0	SGMW-06B
SGMW-07A	**	**	**	**	**	**	**	**	**	SGMW-07A
SGMW-07B	**	**	**	**	**	**	**	**	**	SGMW-07B
SGMW-08A	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	1	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	1	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	0	0	0	SGMW-12B

** No measurement was recorded.

Brookhaven National Laboratory
2000 Landfills Environmental Monitoring Report
2000 Former Landfill Soil Gas Monitoring Summary Table

Methane (% By Volume) February-00	Methane (% By Volume) June-00	Methane (% By Volume) September-00	Methane (% By Volume) December-00	LEL (% By Volume) February-00	LEL (% By Volume) June-00	LEL (% By Volume) September-00	LEL (% By Volume) December-00	Hydrogen Sulfide (ppm by volume) February-00	Hydrogen Sulfide (ppm by volume) June-00	Hydrogen Sulfide (ppm by volume) September-00	Hydrogen Sulfide (ppm by volume) December-00	Soil Gas Monitoring Well
0	0	0	0	0	0	0	0	2	5	1	1	SGMW-01A
0	0	0	0	0	0	0	0	0	0	2	2	SGMW-01B
0	0	0	0	0	0	0	0	2	0	0	2	SGMW-02A
0	0	0	0	0	0	0	0	0	0	0	1	SGMW-02B
0	0	0	0	0	0	0	0	0	0	1	2	SGMW-03A
0	0	0	0	0	0	0	0	0	1	1	3	SGMW-03B
0	0	0	0	0	0	0	0	0	0	1	3	SGMW-04A
0	0	0	0	0	0	0	0	0	0	1	4	SGMW-04B
0	0	0	0	0	0	0	0	0	0	1	4	SGMW-05A
0	0	0	0	0	0	0	0	1	1	1	4	SGMW-05B
0	0	0	0	0	0	0	0	0	2	2	3	SGMW-06A
0	0	0	0	0	0	0	0	0	0	2	3	SGMW-06B
0	0	0	0	0	0	0	0	0	0	1	4	SGMW-07A
0	0	0	0	0	0	0	0	0	0	1	0	SGMW-07B
0	0	0	0	0	0	0	0	0	0	0	3	SGMW-08A
0	0	0	0	0	0	0	0	0	0	0	3	SGMW-08B
0	0	0	0	0	0	0	0	0	2	1	3	SGMW-09A
0	0	0	0	0	0	0	0	0	1	2	4	SGMW-09B
0	0	0	0	0	0	0	0	0	0	2	4	SGMW-10A
0	0	0	0	0	0	0	0	0	0	0	5	SGMW-10B
0	0	0	0	0	0	0	0	0	1	0	5	SGMW-11A
0	0	0	0	0	0	0	0	0	0	1	4	SGMW-11B
0	0	0	0	0	0	0	0	2	1	1	4	SGMW-12A
0	0	0	0	0	0	0	0	2	0	1	4	SGMW-12B

gment was collected due to other work in the area.

Brookhaven National Laboratory
2001 Landfills Environmental Monitoring Report
2001 Former Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) March-01	Methane (% By Volume) June-01	Methane (% By Volume) September-01	LEL (% By Volume) March-01	LEL (% By Volume) June-01	LEL (% By Volume) September-01	Hydrogen Sulfide (ppm by volume) March-01	Hydrogen Sulfide (ppm by volume) June-01	Hydrogen Sulfide (ppm by volume) September-01
MW-01A	0	0	0	0	0	0	3	N/A	1
MW-01B	0	0	0	0	0	0	3	N/A	1
MW-02A	0	0	0.1	0	0	0.2	4	N/A	2
MW-02B	0	0	0	0	0	0	5	N/A	2
MW-03A	0	0	0.1	0	0	0.2	4	N/A	3
MW-03B	0	0	0.1	0	0	0.2	4	N/A	2
MW-04A	0	0	0	0	0	0	5	N/A	0
MW-04B	0	0	0	0	0	0	5	N/A	0
MW-05A	0	0	0	0	0	0	6	N/A	0
MW-05B	0	0	0	0	0	0	5	N/A	0
MW-06A	0	0	0	0	<>	0	6	N/A	0
MW-06B	0	0	0	0	<>	0	5	N/A	0
MW-07A	0	0	0	0	<>	0	5	N/A	0
MW-07B	0	0	0	0	<>	0	5	N/A	0
MW-08A	0	0	0	0	<>	0	7	N/A	0
MW-08B	0	0	0	0	<>	0	6	N/A	0
MW-09A	0	0	0	0	0	0	3	N/A	0
MW-09B	0	0	0	0	0	0	6	N/A	0
MW-10A	0	0	0	0	0	0	6	N/A	0
MW-10B	0	0	0	0	0	0	7	N/A	0
MW-11A	0	0	0	0	0	0	4	N/A	0
MW-11B	0	0	0	0	0	0	6	N/A	0
MW-12A	0	0	0	0	0	0	7	N/A	0
MW-12B	0	0	0	0	0	0	6	N/A	0

measurement was collected due to other work in the area.

2007 Former Landfill Soil Gas Monitoring Summary

Soil Gas Monitoring Well	Methane (% By Volume) March-07	Methane (% By Volume) June-07	Methane (% By Volume) October-07	Methane (% By Volume) December-07	LEL (% By Volume) March-07	LEL (% By Volume) June-07	LEL (% By Volume) October-07	LEL (% By Volume) December-07	Hydrogen Sulfide (ppm by volume) March-07	Hydrogen Sulfide (ppm by volume) June-07	Hydrogen Sulfide (ppm by volume) October-07	Hydrogen Sulfide (ppm by volume) December-07	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	0	0	2	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	0	0	1	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	0	0	0	3	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	3	1	1	2	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	1	1	1	6	SGMW-03A
SGMW-03B	0	0	0	0	0	0	0	0	1	0	1	5	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	0	2	0	0	5	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	0	2	0	0	4	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	2	0	1	7	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	2	1	1	6	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	2	1	0	7	SGMW-06A
SGMW-06B	0	0	0	0	0	0	0	0	0	1	1	5	SGMW-06B
SGMW-07A	0	0	0	0	0	0	0	0	1	1	0	3	SGMW-07A
SGMW-07B	0	0	0	0	0	0	0	0	1	1	0	7	SGMW-07B
SGMW-08A	0	0	0	0	0	0	0	0	2	1	1	7	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	2	0	1	5	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	0	2	1	2	9	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	2	0	2	8	SGMW-09B
SGMW-10A	0	0	0	0.1	0	0	0	0	2	0	0	7	SGMW-10A
SGMW-10B	0	0.2	0	0.1	0	0	0	0	2	0	0	7	SGMW-10B
SGMW-11A	0	0.7	0	0	0	0	0	0	2	0	1	7	SGMW-11A
SGMW-11B	0	0.2	0	0.1	0	0	0	0	2	0	0	6	SGMW-11B
SGMW-12A	0	0.2	0	6	0	0	0	0	2	0	2	8	SGMW-12A
SGMW-12B	0	0	0	0.1	0	0	0	0	2	0	2	9	SGMW-12B

2003 Former Landfill Soil Gas Monitoring Summary

Soil Gas Monitoring Well	Methane (% By Volume) March-03	Methane (% By Volume) July-03	Methane (% By Volume) October-03	Methane (% By Volume) December-03	LEL (% By Volume) March-03	LEL (% By Volume) July-03	LEL (% By Volume) October-03	LEL (% By Volume) December-03	Hydrogen Sulfide (ppm by volume) March-03	Hydrogen Sulfide (ppm by volume) July-03	Hydrogen Sulfide (ppm by volume) October-03	Hydrogen Sulfide (ppm by volume) December-03	Soil Gas Monitoring Well
SGMW-01A	0	0	0.1	0	0	0	2	0	0	~	0	~	SGMW-01A
SGMW-01B	0.1	0	0	0	2	0	0	0	1	~	0	~	SGMW-01B
SGMW-02A	0.1	0	0.1	0	2	0	2	0	4	~	0	~	SGMW-02A
SGMW-02B	0	0	0.1	0	0	0	2	0	1	~	0	~	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	1	~	0	~	SGMW-03A
SGMW-03B	0.1	0	0.1	0	2	0	2	0	1	~	0	~	SGMW-03B
SGMW-04A	0.2	0	0.1	0	4	0	2	0	2	~	0	~	SGMW-04A
SGMW-04B	0	0	0.1	0	0	0	2	0	3	~	0	~	SGMW-04B
SGMW-05A	0.1	0	0	0	2	0	0	0	1	~	0	~	SGMW-05A
SGMW-05B	0	0	0.1	0	0	0	2	0	1	~	0	~	SGMW-05B
SGMW-06A	0.1	0	0.2	0	2	0	4	0	2	~	0	~	SGMW-06A
SGMW-06B	0.1	0	0.2	0	0	0	4	0	2	~	0	~	SGMW-06B
SGMW-07A	0.1	0	0.1	0	2	0	2	0	4	~	0	~	SGMW-07A
SGMW-07B	0.2	0	0.1	0	4	0	2	0	5	~	0	~	SGMW-07B
SGMW-08A	0.1	0	0.1	0	2	0	2	0	1	~	0	~	SGMW-08A
SGMW-08B	0.2	0	0.1	0	4	0	2	0	2	~	0	~	SGMW-08B
SGMW-09A	0.1	0	0	0	2	0	0	0	3	~	0	~	SGMW-09A
SGMW-09B	0.1	0	0	0	2	0	0	0	1	~	0	~	SGMW-09B
SGMW-10A	0.2	0	0.1	0	4	0	2	0	2	~	0	~	SGMW-10A
SGMW-10B	0.2	0	0	0	4	0	0	0	4	~	0	~	SGMW-10B
SGMW-11A	0.1	0	0.1	0	2	0	2	0	0	~	0	~	SGMW-11A
SGMW-11B	0.1	0	0.1	0	2	0	2	0	3	~	0	~	SGMW-11B
SGMW-12A	0.1	0	0.1	0	2	0	2	0	4	~	0	~	SGMW-12A
SGMW-12B	0.1	0	0.1	0	2	0	2	0	3	~	0	~	SGMW-12B

July measurements taken with a Landtec GEM 500

~ H2S pod not operational.

2004 Former Landfill Soil Gas Monitoring Summary

Soil Gas Monitoring Well	Methane (% By Volume) 3/11/04	Methane (% By Volume) 6/25/04	Methane (% By Volume) 10/20/04	Methane (% By Volume) 11/30/04	LEL (% By Volume) 3/11/04	LEL (% By Volume) 6/25/04	LEL (% By Volume) 10/20/04	LEL (% By Volume) 11/30/04	Hydrogen Sulfide (ppm by volume) 3/11/04	Hydrogen Sulfide (ppm by volume) 6/25/04	Hydrogen Sulfide (ppm by volume) 10/20/04	Hydrogen Sulfide (ppm by volume) 11/30/04	Soil Gas Monitoring Well
SGMW-01A	0.1	0	0	0.1	2	0	0	2	150	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	63	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	109	0	0	0	SGMW-03A
SGMW-03B	0	0.1	0	0	0	2	0	0	0	2	0	0	SGMW-03B
SGMW-04A	0.1	0.1	0	0	2	2	0	0	0	2	0	0	SGMW-04A
SGMW-04B	0	0.1	0	0	0	2	0	0	0	2	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	NR	0	0	0	NR	0	0	0	NR	SGMW-07A
SGMW-07B	0	0	0	NR	0	0	0	NR	0	0	0	NR	SGMW-07B
SGMW-08A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-12B

NR = Not read, access to well was not possible due to construction.
H2S pod suspected of not operating correctly in March.

2005 Former Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/30/05	Methane (% By Volume) 7/21/05	Methane (% By Volume) 10/26/05	Methane (% By Volume) 12/28/05	LEL (% By Volume) 3/30/05	LEL (% By Volume) 7/21/05	LEL (% By Volume) 10/26/05	LEL (% By Volume) 12/28/05	Hydrogen Sulfide (ppm by volume) 3/30/05	Hydrogen Sulfide (ppm by volume) 7/21/05	Hydrogen Sulfide (ppm by volume) 10/26/05	Hydrogen Sulfide (ppm by volume) 12/28/05	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0.1	0	0	0	2	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-12B

2006 Former Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 2/20/06	Methane (% By Volume) 6/23/06	Methane (% By Volume) 9/28/06	Methane (% By Volume) 12/26/06	LEL (% By Volume) 2/20/06	LEL (% By Volume) 6/23/06	LEL (% By Volume) 9/28/06	LEL (% By Volume) 12/26/06	Hydrogen Sulfide (ppm by volume) 2/20/06	Hydrogen Sulfide (ppm by volume) 6/23/06	Hydrogen Sulfide (ppm by volume) 9/28/06	Hydrogen Sulfide (ppm by volume) 12/26/06	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	0	0	1	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	0	0	0	0	1	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	0	0	1	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-12B

2007 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 2/24/07	Methane (% By Volume) 5/17/07	Methane (% By Volume) 9/22/07	Methane (% By Volume) 12/20/07	LEL (% By Volume) 2/24/07	LEL (% By Volume) 5/17/07	LEL (% By Volume) 9/22/07	LEL (% By Volume) 12/20/07	Hydrogen Sulfide (ppm by volume) 2/24/07	Hydrogen Sulfide (ppm by volume) 5/17/07	Hydrogen Sulfide (ppm by volume) 9/22/07	Hydrogen Sulfide (ppm by volume) 12/20/07	Soil Gas Monitoring Well
SGMW-01A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-01A
SGMW-01B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-01B
SGMW-02A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02A
SGMW-02B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02B
SGMW-03A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	SGMW-03A
SGMW-03B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	SGMW-03B
SGMW-04A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-04A
SGMW-04B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-04B
SGMW-05A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-05A
SGMW-05B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-05B
SGMW-06A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-06A
SGMW-06B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-06B
SGMW-07A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-07A
SGMW-07B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-07B
SGMW-08A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-08B
SGMW-09A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-09A
SGMW-09B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-09B
SGMW-10A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-10A
SGMW-10B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-10B
SGMW-11A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-11A
SGMW-11B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-11B
SGMW-12A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	SGMW-12A
SGMW-12B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-12B

2008 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/17/2008	Methane (% By Volume) 7/30/08	Methane (% By Volume) 9/29/2008	Methane (% By Volume) 12/9/2008	LEL (% By Volume) 3/17/2008	LEL (% By Volume) 7/30/08	LEL (% By Volume) 9/29/2008	LEL (% By Volume) 12/9/2008	Hydrogen Sulfide (ppm by volume) 3/17/2008	Hydrogen Sulfide (ppm by volume) 7/30/08	Hydrogen Sulfide (ppm by volume) 9/29/2008	Hydrogen Sulfide (ppm by volume) 12/9/2008	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	0	0	0	0	0	0	SGMW-12B

2009 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/18/2009	Methane (% By Volume) 7/30/2009	Methane (% By Volume) 12/17/2009	LEL (% By Volume) 3/18/2009	LEL (% By Volume) 7/30/2009	LEL (% By Volume) 12/17/2009	Hydrogen Sulfide (ppm by volume) 3/18/2009	Hydrogen Sulfide (ppm by volume) 7/30/2009	Hydrogen Sulfide (ppm by volume) 12/17/2009	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	0	0	0	SGMW-12B

2010 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 6/7/2010	Methane (% By Volume) 12/9/2010	LEL (% By Volume) 6/7/2010	LEL (% By Volume) 12/9/2010	Hydrogen Sulfide (ppm by volume) 6/7/2010	Hydrogen Sulfide (ppm by volume) 12/9/2010	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	1	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	SGMW-12B

2011 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 6/7/2011	Methane (% By Volume) 12/13/2011	LEL (% By Volume) 6/7/2011	LEL (% By Volume) 12/13/2011	Hydrogen Sulfide (ppm by volume) 6/7/2011	Hydrogen Sulfide (ppm by volume) 12/13/2011	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	SGMW-12B

2012 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 6/19/2012	Methane (% By Volume) 12/5/2012	LEL (% By Volume) 6/19/2012	LEL (% By Volume) 12/5/2012	Hydrogen Sulfide (ppm by volume) 6/19/2012	Hydrogen Sulfide (ppm by volume) 12/5/2012	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	SGMW-01A
SGMW-01B	0	0	0	0	0	0	SGMW-01B
SGMW-02A	0	0	0	0	0	0	SGMW-02A
SGMW-02B	0	0	0	0	0	0	SGMW-02B
SGMW-03A	0	0	0	0	0	0	SGMW-03A
SGMW-03B	0	0	0	0	0	0	SGMW-03B
SGMW-04A	0	0	0	0	0	0	SGMW-04A
SGMW-04B	0	0	0	0	0	0	SGMW-04B
SGMW-05A	0	0	0	0	0	0	SGMW-05A
SGMW-05B	0	0	0	0	0	0	SGMW-05B
SGMW-06A	0	0	0	0	0	0	SGMW-06A
SGMW-06B	0	0	0	0	0	0	SGMW-06B
SGMW-07A	0	0	0	0	0	0	SGMW-07A
SGMW-07B	0	0	0	0	0	0	SGMW-07B
SGMW-08A	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	0	0	SGMW-08B
SGMW-09A	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0	0	0	0	0	0	SGMW-09B
SGMW-10A	0	0	0	0	0	0	SGMW-10A
SGMW-10B	0	0	0	0	0	0	SGMW-10B
SGMW-11A	0	0	0	0	0	0	SGMW-11A
SGMW-11B	0	0	0	0	0	0	SGMW-11B
SGMW-12A	0	0	0	0	0	0	SGMW-12A
SGMW-12B	0	0	0	0	0	0	SGMW-12B