
**BROOKHAVEN NATIONAL LABORATORY
2017 ENVIRONMENTAL MONITORING
REPORT
CURRENT AND FORMER LANDFILL AREAS**

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**BROOKHAVEN NATIONAL LABORATORY
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Executive Summary

This report documents the Operations and Maintenance activities undertaken during the calendar year 2017 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, updated November 4, 2017. The landfill caps are functioning as designed and the 2017 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 2016. Volatile organic compounds (VOCs) and metals continue to be detected downgradient of the Current Landfill. The most prevalent VOCs detected above standards are chloroethane, 1,1-dichloroethane and benzene, at maximum concentrations of 49 micrograms per liter ($\mu\text{g/L}$), 32 $\mu\text{g/L}$ and 2 $\mu\text{g/L}$, respectively. As with previous years, antimony, 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 historically. Maximum concentrations of aluminum, antimony, arsenic, iron, manganese, and sodium in downgradient wells were 862 $\mu\text{g/L}$, 6 $\mu\text{g/L}$, 21 $\mu\text{g/L}$, 72,200 $\mu\text{g/L}$, 5,790 $\mu\text{g/L}$, and 41,800 $\mu\text{g/L}$, respectively. These results are an indicator of continued low level leachate generation at this landfill. There were no detections of radionuclides above standards at the Current Landfill during 2017.

The *2016 Environmental Monitoring Report, Current and Former Landfill Areas*, increased the Sr-90 sampling frequency downgradient of the Former Landfill from bi-annual to annual for wells 097-64, 106-02, 106-43, 106-44, and 106-45 to monitor for any increasing concentration trends. The increasing trend of strontium-90 concentrations which was observed in well 097-64 over the past several years was not observed in 2017. The data from well 097-64 indicated a decreased strontium-90 concentration from 6.6 pCi/L in 2016 to 1.4 pCi/L in 2017. The strontium-90 concentrations for this monitoring well have remained below the groundwater standard of 8 pCi/L since 2000.

The groundwater monitoring well networks for the Current and Former Landfill Areas are adequate at this time. VOCs will continue to be monitored quarterly in Current Landfill wells 088-109 and OUI-MW01-2017 and strontium-90 will continue to be monitored annually in the five Former landfill monitoring wells.

In response to New York State Department of Environmental Conservation (NYSDEC)/New York State Department of Health (NYSDOH) and Suffolk County Department of Health Services (SCDHS) requests, BNL collected samples of the groundwater in December 2017 for 1,4-Dioxane analyses. Two of the monitoring wells sampled were located downgradient of the Current and Former Landfill Areas. These results are well below the current standard of 50 $\mu\text{g/L}$ for unspecified organic compounds.

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ACRONYMS

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

1.0 INTRODUCTION

This report documents the Operation and Maintenance (O&M) activities conducted and summarizes monitoring data collected during calendar year (CY) 2017 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, revised November 4, 2017. 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 twenty-second year of O&M for the Current Landfill, the twenty-first year for the Former Landfill and Slit Trench, and the twentieth 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 November 4, 2017).

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 was incorporated into the Current Landfill Monitoring Program and consisted of sampling and analyzing surface water and sediment annually through 2008, and then every other year to evaluate the potential for leachate migrating into this area, as originally performed under the *OUI Ecological Risk Assessment* (CDM Federal, 1999). In response to information provided in the *2015 Environmental Monitoring Report, Current and Former Landfill Areas* and additional tiger salamander information provided upon the request of the NYSDEC, it was agreed that further monitoring of the Wooded Wetlands be limited to visual tiger salamander assessments. No further sediment and surface water samples will be collected and care will be taken by BNL to not disturb the buildup of detritus material in the Wooded Wetland.

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 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 CY 2003. 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, 2017). 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 annually from monitoring locations surrounding the Former Landfill to evaluate the movement of soil-gas from the landfills.

Wooded Wetland Monitoring. Surface water and sediment in the wooded wetland adjacent to the eastern boundary of the Current Landfill had been sampled every two years to evaluate possible effects of landfill leachate on tiger salamander habitats. Routine samples were last collected in 2016. Based on the historic results of the routine sampling, and the supplemental sampling conducted in December 2015, the NYSDEC agreed to allow BNL to discontinue the monitoring of the sediment and surface waters at the Wooded Wetlands. Tiger salamander monitoring will continue and be reported in a separate report. The Land Use and Institutional Controls factsheet for the Wooded Wetlands was updated to reflect the changes to monitoring and reporting.

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 2017.

These activities are discussed in greater detail in Sections 2 through 4 of this report. Section 5 contains the conclusions and recommendations. References are included in Section 6.

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 eleven downgradient wells and one background monitoring well. Well OUI-MW01-2017 was added during 2017 to monitor downgradient VOC concentrations detected in monitoring well 088-109. Figure 2 depicts the location of the monitoring wells. Figure 3 shows the water table contours for this area in November 2017. 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
OUI-MW01-2017	39.5-49.5	Intermediate 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 14 shallow monitoring wells (three background and 11 downgradient). The locations of the 14 monitoring wells are presented in Figure 4. The direction of groundwater flow in the OU I area of the site is generally to the south-southeast. Figure 3 shows the November 2017 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 June and October 2017 for VOCs, metals, and water chemistry parameters. A quarterly VOC sampling frequency was maintained for well 088-109 and OUI-MW01-2017, due to the continued presence of elevated levels of chloroethane. Radionuclides were sampled once, in October 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, all Former Landfill Area wells were scheduled to be sampled every two years. The *2016 Environmental Monitoring Report, Current and Former Landfill Areas*, increased the Sr-90 sampling frequency from bi-annual to annual for wells 097-64, 106-02, 106-43, 106-44, and 106-45 to monitor for any increasing concentration trends. All other wells and parameters, which include VOCs, pesticides/PCBs, general chemistry, metals and radionuclides, are scheduled to be sampled in 2018.

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 SOPs for groundwater monitoring. The analytical results for groundwater samples collected during 2017 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 quarters. 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 the Current Landfill and radionuclide results for the Former Landfill Area in 2017. The historical trends in concentrations of key contaminants are assessed and shown graphically in Figures 5 through 9. Summary tables of all 2017 landfill groundwater data are presented in Tables 2 through 6. 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 2017 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 ($\mu\text{g/L}$) in monitoring well 087-11. 1,1-Dichloroethane was detected above the groundwater standards of 5 $\mu\text{g/L}$ in two downgradient monitoring wells, 088-109 and OUI-MW01-2017 during 2017 (Table 2). Chloroethane was detected in well 088-109 above the groundwater standards of 5 $\mu\text{g/L}$. No other VOCs were detected above groundwater standards during 2017.

Benzene exceeded the 1 $\mu\text{g/L}$ standard in well 087-11 during the June and October sampling events. The highest detection of benzene was 2.1 $\mu\text{g/L}$ during the June event in well 087-11. Chloroethane exceeded the 5 $\mu\text{g/L}$ standard in well 088-109 during all four sampling events in 2017. The maximum chloroethane concentration was 49 $\mu\text{g/L}$ detected in well 088-109 during the October sampling event, which is well below the historic high of 560 $\mu\text{g/L}$ detected in this well in 1998. 1,1-Dichloroethane was detected above the standard of 5 $\mu\text{g/L}$ in well 088-109 during all four sampling events and in Well OUI-MW01-2017 during the October sampling event. The high concentration of 1,1-dichloroethane was 32 $\mu\text{g/L}$ in October in well 088-109. There is no apparent seasonal or water table elevation correlation with VOC concentrations in this well based on an assessment of historical data.

Figure 5 plots the concentration trends of total VOCs (TVOC), benzene, and chloroethane. As shown, VOCs remained relatively stable at low concentrations except for chloroethane in well 088-109. 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 of the landfill.

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 2017 (Table 1). The results are provided in Table 3. Elevated levels of these parameters can be indicative of the presence of landfill leachate. During 2017, 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 downgradient well 088-109, as shown in Table 3. The highest concentration of 3.3 mg/L was reported for well 088-109 in October. The levels of ammonia detected in downgradient wells are consistent with historic data.

Chloride was not detected above the standard of 250 mg/L in any wells in 2017. Downgradient well 088-21 had the highest concentration of chloride at 67 mg/L in June. Figure 6 plots these trends. The trends for downgradient wells show the low levels 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 23 mg/L to 27 mg/L during 2017. The highest alkalinity concentration during 2017 was detected in downgradient, shallow Upper Glacial aquifer well 088-109, at 155 mg/L in October. There is no groundwater standard for alkalinity. The historical concentration trends plotted in Figure 6 show overall stable to decreasing levels of alkalinity.

During 2017, all sulfate concentrations remained below the groundwater standard of 250 mg/L. The highest sulfate value reported for 2017 was detected in the June sample from monitoring well 088-23 at a concentration of 18.5 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 137 mg/L to 164 mg/L, and nondetect to 0.6 mg/L, respectively. The maximum concentrations observed in downgradient wells were 273 mg/L and 70 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 087-09 are still lower than in several downgradient wells, suggesting continued leachate migration from the landfill into the groundwater.

During 2017, iron, and sodium in the background well, and aluminum, antimony, 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 wells 087-23 and 087-27 at a maximum concentration of 862 µg/L. These results are consistent with sporadic historic results reported for several Current Landfill wells, including background well 087-09.

Antimony was reported above the standard of 3 µg/L in wells 087-11 and 087-27. The maximum antimony concentration was 6.2 µg/L. The results are consistent with historic data.

Arsenic was reported above the standard of 10 µg/L in wells 087-23, 087-27, and 088-110 at a high concentration of 21 µg/L. 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, 088-21, and 088-22. The background concentrations ranged up to 479 µg/L while downgradient concentrations ranged up to 72,200 µg/L (well 087-11). Iron trend graphs are plotted on Figure 7.

Manganese ranged from 3 µg/L to 7 µg/L in background well 087-09, and up to 5,790 µg/L (well 087-23) in the downgradient wells.

Background and downgradient sodium levels ranged up to 41,800 µg/L. Chromium was not detected above the standard of 50 µg/L in any monitoring wells during 2017. Chromium was detected up to 47 µg/L in background well 087-09. Chromium was detected in downgradient wells at a high concentration of 3.2 µg/L in wells 087-23 and 088-110.

2.2.1.4 Radionuclides

No radionuclides were detected above groundwater standards during 2017 (Table 5). Strontium-90 was the only radionuclide detected during 2017. Strontium-90 was detected significantly below the groundwater standard of 8 pCi/L with a maximum value of 0.9 pCi/L in well 088-21 (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*, monitoring wells were scheduled to be sampled every two years. Well 106-02 continues to be sampled annually for metals. The Former Landfill Area monitoring wells were last sampled during 2016 and are scheduled for their next sampling in 2018. Due to a slight increase in strontium-90 concentrations in monitoring well 097-64, the *2016 Environmental*

Monitoring Report, Current and Former Landfill Areas, recommended to increase the Sr-90 sampling frequency from bi-annual to annual for wells 097-64, 106-02, 106-43, 106-44, and 106-45 to monitor for any increasing concentration trends.

2.2.2.1 Radionuclides

The sampling results are summarized in Table 6, and concentration trend plots for Strontium-90 are shown on Figure 9. Strontium-90 was sampled for in wells 097-64, 106-02, 106-43, 106-44, and 106-45. All strontium-90 detections were below groundwater standards during 2017.

The highest strontium-90 result was in well 106-44 at 4.4 pCi/L. All strontium-90 concentrations decreased from 2016 values except well 106-44. Well 106-44 showed a slight increase from the 3.7 pCi/L 2016 strontium-90 concentration. This is well below the recorded high of 11.2 pCi/L detected in 2001 for this well.

The 2017 result for well 097-64 indicated a decreased strontium-90 concentration from 6.6 pCi/L in 2016 to 1.4 pCi/L in 2017.

2.3 1,4-Dioxane Monitoring

In response to New York State Department of Environmental Conservation (NYSDEC)/New York State Department of Health (NYSDOH) and Suffolk County Department of Health Services (SCDHS) requests, BNL collected samples of the groundwater in December 2017 for 1,4-Dioxane analyses. The full results of this sampling event will be reported in the *2017 Annual Groundwater Status Report*. However, two of the monitoring wells sampled were located downgradient of the Current and Former Landfill Areas. The results for these wells are as follows:

Well ID	Project	Date Sampled	Depth (ft bls)	1,4-Dioxane (µg/L)
088-109	Current Landfill	12/5/2017	13.5	0.711
106-30	Former Landfill	12/5/2017	36.5	ND

ft bls Feet below land surface.

ND Not detected, <0.2 µg/L.

These results are well below the current standard of 50 µg/L for unspecified organic contaminants. The 1,4-Dioxane results will be discussed on a site wide basis in the *2017 Annual Groundwater Status Report*.

3.0 SOIL-GAS MONITORING

3.1 Soil-gas Monitoring Networks

Soil-gas readings were collected from wells surrounding the Current Landfill in March, June, September, and December 2017 and from the Former Landfill in August 2017. Methane, lower explosive limit (LEL), and hydrogen sulfide were measured using a Landtek GEM 2000. The LEL for methane is 5.3% and the upper explosive limit (UEL) is 15%.

3.1.1 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 7 describes each soil-gas well adjacent to the landfill. Their locations are illustrated on Figure 10.

3.1.2 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 7 and their locations shown in Figure 11.

3.1.3 Sampling Frequency

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

Sampling Event	Current Landfill	Former Landfill
Round 1	March 2017	August 2017
Round 2	June 2017	None
Round 3	September 2017	None
Round 4	December 2017	None

3.2 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.

3.2.1 Current Landfill

A total of 23 soil-gas monitoring well clusters are positioned around the Current Landfill (Figure 10) and were sampled quarterly during 2017. 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. This is a BNL administration limit that would trigger further evaluation.

The results of the soil-gas monitoring for 2017 are summarized in Table 8. 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, two points, SGM-18 and SGM-19, along the northern side of the Current Landfill had elevated LEL readings. SGM-18 had elevated LEL readings in March and September while SGM-19 had elevated LEL readings in June and September. 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 2017, 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 58 ppm. Well SGMW-15B located along the east 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 –8.5 – 11.5 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.

3.2.1.1 Trend in Soil-Gas Data

Appendix C contains the results of methane and hydrogen sulfide monitoring for the Current Landfill from 1996 through 2016. Generally the levels of methane and hydrogen sulfide in the wells along the northwest landfill boundary and southeast corner have remained elevated but stable.

3.2.2 Former Landfill Area

A total of 12 soil-gas monitoring well clusters are positioned around the Former Landfill Area (Figure 11). During 2017, the well clusters were monitored once in August. 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 sampling event, there was no methane or hydrogen sulfide detected. Table 9 details the 2017 soil-gas monitoring results for the Former Landfill Area. Appendix A contains the field notes recorded during the sampling events.

3.2.2.1 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 has not been detected since 2010. Appendix C includes the results of methane and hydrogen sulfide monitoring in the Former Landfill Area for 1996 through 2016.

Presently, there is no measured pathway for methane gas migration, nor do the concentrations represent an explosive hazard, as shown by the non-detectable 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.

4.0 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 by BNL is discussed below.

4.1 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 June and October at the Current and Former Landfills. Phragmites impinging on the asphalt access road at the Current Landfill were cut back. Small pine seedlings observed growing on the edge of the Former Landfill cap were either hand pulled or cut back mechanically. The seedlings only penetrated the top soil cover. An animal burrow on the north slope of the Current Landfill and one on the south slope of the Former Landfill were filled in and seeded. The burrows did not penetrate past the protection layer of the cap.

4.2 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. The weeds died off as cold weather set in. If they grow back in sufficient numbers, they will either be cut back or sprayed with herbicide in 2018.

4.3 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.

4.4 Related Structures

No structures required maintenance during 2017.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Groundwater Monitoring

5.1.1 *Conclusions for the Current Landfill*

- Benzene was detected in downgradient well 087-11 at concentrations slightly above the groundwater standard with a maximum concentration of 2.1 µg/L. The other VOCs detected above the groundwater standard were chloroethane and 1,1-dichloroethane during 2017. 1,1-Dichloroethane was detected in two monitoring wells above the standard of 5 µg/L, 088-108 and OUI-MW01-2017. The maximum concentration of 1,1-dichloroethane during 2017 was 32 µg/L. During 2017, chloroethane concentrations ranged up to 49 µg/L indicating that VOCs continue to emanate from the landfill. An analysis of the trends of VOCs indicated the concentrations are stable to decreasing. These concentrations are naturally attenuating and are not detected at the site boundary above the drinking water standard.
- 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 into groundwater. Ammonia was detected above the standard of 2 mg/L in downgradient well 088-109 at a high of 3.3 mg/L.
- During 2017, iron, and sodium in the background well, and aluminum, antimony, arsenic, iron, manganese, and sodium in several downgradient wells were detected above their respective groundwater standards.
- Strontium-90 was detected in well 088-21 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.

5.1.2 Recommendations for the Current Landfill

The monitoring well network for the Current Landfill is sufficient. No changes to the network or the sampling frequency are warranted at this time.

5.1.3 Conclusions for the Former Landfill Area

- All strontium-90 detections were below the groundwater standard of 8 pCi/L during 2017. The highest strontium-90 result was in well 106-44 at 4.4 pCi/L. The Strontium-90 results are consistent with historic data.

5.1.4 Recommendations for the Former Landfill Area

- The monitoring well network and sampling schedule for the Former Landfill are sufficient. No changes are warranted at this time. A full round of monitoring will be conducted in 2018.

5.2 Soil-Gas Monitoring

5.2.1 Conclusions for the Current Landfill

Methane and/or hydrogen sulfide levels in wells located along the west landfill boundary, north 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. No methane or hydrogen sulfide were detected in the three temporary soil-gas wells installed south east of the Current Landfill.

5.2.2 Recommendations for the Current Landfill

The soil-gas monitoring program is adequate at this time.

5.2.3 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.

5.2.4 Recommendations for the Former Landfill Area

The soil-gas monitoring program is adequate at this time.

5.3 Maintenance and Repair

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

5.3.1 Current Landfill

Monthly inspections and maintenance will continue in accordance with the O&M requirements.

Access to the soil-gas monitoring wells will continue to be cleared via mechanical weed whacking.

Continue removal of small pines and weeds in the drainage channel during 2018.

5.3.2 Former Landfill Area

Monthly inspections and maintenance will continue in accordance with the O&M requirements.

Access to the soil-gas monitoring wells will continue to be cleared via mechanical weed whacking.

Continue removal of small pines and weeds in the drainage channel during 2018.

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Table 1. Analytical Requirements for Groundwater Samples

Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Cyanide	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr 90	Blind Duplicate/MS/MSD	Frequency (events/year)
087-09	CLF		Background	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b					2f
087-11	CLF		Downgradient	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b					2f
087-23	CLF		Downgradient	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^a	X ^a	X ^a		2f
087-24	CLF		Downgradient	X ^a	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b					2f
087-26	CLF		Downgradient	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b					2f
087-27	CLF		Downgradient	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^a	X ^a	X ^a		2f
088-109	CLF		Downgradient	X	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^a	X ^a	X ^a	X	4
088-110	CLF		Downgradient	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b					2f
088-21	CLF		Downgradient	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^b	X ^a	X ^a	X ^a		2f
088-22	CLF		Downgradient	X ^a	X ^a	X ^a	X ^a	X ^a	X ^a	X ^a	X ^a	X ^a	X ^a					1a
088-23	CLF		Downgradient	X ^a	X ^a	X ^a	X ^a	X ^a	X ^a	X ^a	X ^a	X ^a	X ^a					1a
OUI-MW01-2017	CLF	OU I (South Boundary)	Downgradient	X														4
097-64	FLF		Downgradient													X ^a		1a
106-02	FLF		Downgradient													X ^a		1a
106-43	FLF		Downgradient													X ^a		1a
106-44	FLF		Downgradient													X ^a		1a
106-45	FLF		Downgradient													X ^a		1a

NOTES:

a: Collect in 4th Quarter only.

b: Collect in 2nd and 4th Quarters.

Table 2. Current Landfill - Summary of 2017 Volatile Organic Compound Data

Analyte	Groundwater Standards (µg/L)	087-09		087-11		087-23		087-24		087-26	
		6/7/2017 (µg/L)	10/24/2017 (µg/L)	6/7/2017 (µg/L)	10/24/2017 (µg/L)	6/7/2017 (µg/L)	10/24/2017 (µg/L)	6/7/2017 (µg/L)	10/24/2017 (µg/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	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	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	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	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	0.5 U	0.5 U	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	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	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	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	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	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	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	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	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	0.5 U	0.5 U	0.5 U
Benzene	1	0.5 U	0.5 U	2.07	1.86	0.17	J	0.51	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	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	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	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	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	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	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	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	0.5 U	0.5 U	0.82	0.77	0.5 U	0.51	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	0.5 U	0.5 U	0.5 U
Chloroethane	5	0.5 U	0.5 U	2.81	2.98	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	7	0.43	J	0.29	J	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	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	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	0.5 U	0.5 U	0.5 U
DBCP	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	5	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	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	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	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	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	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	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	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	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	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	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	0.5 U	0.5 U	0.5 U
Methyl tert-butyl ether	10	0.5 U	0.5 U	0.17	J	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	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	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	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	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	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	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	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	0.5 U	0.5 U	0.5 U
p-Dichlorobenzene	3	0.5 U	0.5 U	0.5 U	0.37	J	0.5 U	0.27	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	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	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	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	0.5 U	0.5 U	0.5 U
Toluene	5	0.5 U	0.5 U	0.5 U	0.5 U	0.2	J	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	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	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	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	0.5 U	0.5 U	0.5 U
524.2 TVOC	--	0.43	0.29	5.87	5.98	0.37	1.29	0	0	0	0

Table 2. Current Landfill - Summary of 2017 Volatile Organic Compound Data

Analyte	Groundwater Standards (µg/L)	087-27		087-27		088-109		088-109		088-109		088-109		088-110		088-110		088-21	
		6/7/2017 (µg/L)	U	10/24/2017 (µg/L)	U	2/8/2017 (µg/L)	U	6/7/2017 (µg/L)	U	7/27/2017 (µg/L)	U	10/24/2017 (µg/L)	U	6/7/2017 (µg/L)	U	10/24/2017 (µg/L)	U	6/7/2017 (µg/L)	U
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	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	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	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	0.5	U	0.5	U
1,1-Dichloroethane	5	0.5	U	0.5	U	8		16.2		17		32.1		0.5	U	0.41	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	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	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	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	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	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	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	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	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	0.5	U	0.5	U
Benzene	1	0.91		0.5	U	0.68		0.4	J	0.39	J	0.46	J	0.5	U	0.58		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	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	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	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	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	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	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	0.5	U	0.5	U
Chlorobenzene	5	0.68		0.5	U	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	0.5	U	0.5	U
Chloroethane	5	1.24		0.5	U	40.4		35.5		47.6		48.6		0.78		3.91		0.5	U
Chloroform	7	0.58		0.5	U	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	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	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	0.5	U	0.5	U
DBCP	0.04	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dibromochloromethane	5	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
Dibromomethane	5	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
Dichlorodifluoromethane	5	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
EDB	0.05	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
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	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	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	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	0.5	U	0.5	U
m/p xylene	5	1	U	1	U	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0.5	U	0.5	U
524.2 TVOC	--	3.41		0		49.08		52.1		64.99		81.16		0.78		4.9		0	

Table 2. Current Landfill - Summary of 2017 Volatile Organic Compound Data

Analyte	Groundwater Standards (µg/L)	088-21		088-22		088-23		OUI-MW01-2017 2/15/2017		OUI-MW01-2017 6/7/2017		OUI-MW01-2017 7/27/2017	
		10/24/2017 (µg/L)	U	10/24/2017 (µg/L)	U	10/24/2017 (µg/L)	U	(µg/L)	U	(µg/L)	U	(µg/L)	U
1,1,1,2-Tetrachloroethane	5	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
1,1,2,2-Tetrachloroethane	5	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
1,1-Dichloroethane	5	0.5	U	0.5	U	0.5	U	3.6		4.69		4.6	
1,1-Dichloroethylene	5	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
1,2,3-Trichlorobenzene	5	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
1,2,4-Trichlorobenzene	5	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
1,2-Dichloropropane	1	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
2,2-Dichloropropane	5	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	0.5	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
Benzene, 1,3,5-trimethyl-	5	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
Bromobenzene	5	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
Bromoform	50	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
Chlorobenzene	5	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
Chloroethane	5	0.5	U	0.5	U	0.5	U	2.8		3.16		3.99	
Chloroform	7	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
cis-1,3-Dichloropropene	0.4	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
DBCP	0.04	1	U	1	U	1	U	0.5	U	1	U	1	U
Dibromochloromethane	5	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
Dichlorodifluoromethane	5	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
Ethene, 1,2-dichloro-, (E)-	5	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
Hexachlorobutadiene	0.5	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
m/p xylene	5	1	U	1	U	1	U	0.5	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
Methyl chloride	5	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
Methylene chloride	5	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
n-Propylbenzene	5	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
o-Chlorotoluene	5	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
o-Xylene	5	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
p-Dichlorobenzene	3	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
Styrene	5	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
Tetrachloroethylene	5	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
trans-1,3-Dichloropropene	0.4	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
Trichlorofluoromethane	5	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
524.2 TVOC	--	0		0		0		6.4		7.85		8.59	

Table 2. Current Landfill - Summary of 2017 Volatile Organic Compound Data

Analyte	Groundwater Standards (µg/L)	OUI-MW01-2017 10/24/2017 (µg/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	6.91	
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	4.56	
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	1	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	--	11.47	

Table 3. Current Landfill - Summary of 2017 Water Chemistry Data

<i>Analyte</i>	Groundwater Standards (mg/L)	087-09 6/7/2017 (mg/L)		087-09 10/24/2017 (mg/L)		087-11 6/7/2017 (mg/L)		087-11 10/24/2017 (mg/L)		087-23 6/7/2017 (mg/L)		087-23 10/24/2017 (mg/L)		087-24 6/7/2017 (mg/L)	
Alkalinity (as CaCO ₃)	--	27.2		23.4		141		145		28		56.9		23.2	
Ammonia (as N)	2	0.0443	UJ	0.0394	UJ	1.14	J	1.68	J	0.138	J	0.18	UJ	0.0415	UJ
Chloride	250	53.7	J	40.7	J	19.7	J	24	J	9.02	J	8.49	J	21.7	J
Cyanide	0.002	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	1.06		1.06		0.066	U	0.0888	U	0.161	U	1.62		0.555	
Nitrite (as N)	1	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U
Nitrite + Nitrate-N	10	1.07		1.29		0.85	U	0.085	U	0.17	U	8.83		0.569	
Nitrogen	--	1.17		1.38		1.6	J	1.77		0.267	J	9.13		0.679	
Sulfate	250	14.9		18.1		11.8		4.37		6.84		6.17		14.2	
Total Kjeldahl Nitrogen	--	0.102	J	0.0924	J	1.6	J	1.77		0.267	J	0.295		0.11	J
TDS	--	164		137		220		263		84.3		107	U	97.1	
TSS	--	0.6	J	1.21	U	12	J	13	J	17.2		15	J	0.6	J

Table 3. Current Landfill - Summary of 2017 Water Chemistry Data

<i>Analyte</i>	Groundwater Standards (mg/L)	087-24 10/24/2017 (mg/L)		087-26 6/7/2017 (mg/L)		087-26 10/24/2017 (mg/L)		087-27 6/7/2017 (mg/L)		087-27 10/24/2017 (mg/L)		088-109 6/7/2017 (mg/L)		088-109 10/24/2017 (mg/L)	
Alkalinity (as CaCO ₃)	--	23.6		23		23		93.6		108		118		155	
Ammonia (as N)	2	0.0195	UJ	0.0491	UJ	0.0546	UJ	1.01	J	0.805	J	3.26	J	3.34	J
Chloride	250	16.2	J	15.3	J	14.1	J	38.6	J	32.1	J	21.5	J	22.1	J
Cyanide	0.002	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	0.575		0.5		0.459		0.11	U	0.579		0.066	U	0.172	U
Nitrite (as N)	1	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U
Nitrite + Nitrate-N	10	0.569		0.386		0.404		0.85	U	0.017	U	0.85	U	0.017	U
Nitrogen	--	0.572		0.462		0.418		1.54	J	0.849		2.94		4.05	
Sulfate	250	12.6		12.9		12.2		12.5		10.9		5.67		8.27	
Total Kjeldahl Nitrogen	--	0.033	U	0.0762	J	0.033	U	1.54	J	0.849		2.94	J	4.05	
TDS	--	95.7	U	90		84.3	U	200		231		176		273	
TSS	--	0.57	U	9.2	J	13.3		70		26		11.4		33	

Table 3. Current Landfill - Summary of 2017 Water Chemistry Data

<i>Analyte</i>	Groundwater Standards (mg/L)	088-110 6/7/2017 (mg/L)		088-110 10/24/2017 (mg/L)		088-21 6/7/2017 (mg/L)		088-21 10/24/2017 (mg/L)		088-22 10/24/2017 (mg/L)		088-23 10/24/2017 (mg/L)	
Alkalinity (as CaCO ₃)	--	55.2		84.8		31		12.6		21.6		9.38	
Ammonia (as N)	2	0.207	J	0.596	J	0.0478	UJ	0.0524	UJ	0.0565	UJ	0.0909	UJ
Chloride	250	30.4	J	24.5	J	67.3	J	46.7	J	14.7	J	16.2	J
Cyanide	0.002	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	0.0435	U	0.226		0.164	U	0.484		0.0892	U
Nitrite (as N)	1	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U
Nitrite + Nitrate-N	10	0.85	U	0.017	U	0.21		0.137		0.471		0.0212	J
Nitrogen	--	0.85	U	0.515		0.348		0.212		0.532		0.0796	J
Sulfate	250	18.1		19		4.36		8.24		12		18.5	
Total Kjeldahl Nitrogen	--	0.219	J	0.515		0.138	J	0.0753	J	0.061	J	0.0584	J
TDS	--	126		211		149		133	U	88.6	U	87.1	U
TSS	--	20	J	19	J	0.57	U	2.24	J	0.816	J	4	J

Table 4. Current Landfill - Summary of 2017 Metals Data

<i>Analyte</i>	Groundwater Standards (µg/L)	087-09 1/25/2017 (µg/L)		087-09 6/7/2017 (µg/L)		087-09 10/24/2017 (µg/L)		087-11 6/7/2017 (µg/L)		087-11 10/24/2017 (µg/L)		087-23 6/7/2017 (µg/L)		087-23 10/24/2017 (µg/L)		087-24 6/7/2017 (µg/L)		087-24 10/24/2017 (µg/L)	
Aluminum	200	68	U	68	U	68	U	106	B	68	U	862		68	U	68	U	68	U
Antimony	3	3.5	U	3.5	U	3.5	U	6.15	B	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U
Arsenic	10	1.7	U	2	U	2	U	8.64		7.21		13.2		9.47		2	U	2	U
Barium	1000	25.2	B	40.8	B	30.2	B	22.9	B	25.4	B	21.5	B	26.3	B	10.6	B	8.13	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	--	8300		14100		9170		19000		15500		4390	B	6930		7310		5460	
Chromium	50	9.33	B	46.6		42.2		2.36	B	1	U	3.23	B	1.65	B	1	U	1	U
Cobalt	--	1.12	B	1	U	1	U	6.15	B	8.81	B	5.53	B	7.14	B	1.03	B	1.16	B
Copper	200	3	U	3	U	3	U	11.7	B	3	U	3	U	3	U	3	U	3	U
Iron	300	479		219		148	J	63100		72200		18100		23900		63.4	B	43.3	B
Lead	25	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1.76	B	0.551	B	0.5	U	0.5	U
Magnesium	35000	2360	B	3700	B	2720	B	3300	B	2700	B	1540	B	2250	B	4480	B	3450	B
Manganese	300	2.89	B	6.72	B	3.55	B	2020		1590		3660		5790		4.51	B	2.05	B
Mercury	0.7	0.067	U	0.074	B	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U
Nickel	100	16.9	B	11	B	13	B	5.69	B	2.48	B	3.24	B	3.6	B	1.5	U	1.5	U
Potassium	--	1460	B	2020	B	1670	B	1970	B	2150	B	769	B	841	B	1150	B	1020	B
Selenium	10	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Silver	50	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sodium	20000	24900		29600		26300		12100		11500		5300		5960		12900		11400	
Thallium	0.5	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U
Vanadium	--	1	U	1	U	1	U	1	U	2.04	B	2.34	B	1	U	1	U	1	U
Zinc	2000	9.74	B	5.04	B	4.98	B	21		13.7	B	7.43	B	7.7	B	3.3	U	3.3	U

Table 4. Current Landfill - Summary of 2017 Metals Data

<i>Analyte</i>	Groundwater Standards (µg/L)	087-26		087-26		087-27		087-27		088-109		088-109		088-110		088-110		088-21	
		6/7/2017 (µg/L)	U	10/24/2017 (µg/L)	U	6/7/2017 (µg/L)	U	10/24/2017 (µg/L)	U	6/7/2017 (µg/L)	U	10/24/2017 (µg/L)	U	6/7/2017 (µg/L)	U	10/24/2017 (µg/L)	U	6/7/2017 (µg/L)	U
Aluminum	200	68	U	68	U	333		68	U	68	U	68	U	68	U	68	U	68	U
Antimony	3	3.5	U	3.5	U	4.91	B	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U	3.5	U
Arsenic	10	2.97	B	2	U	20.8		10.2		7.36		9		15.2		13.3		2	U
Barium	1000	22.2	B	20.2	B	29.3	B	22.2	B	50.1	B	48.8	B	25.8	B	26.5	B	17.4	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	--	5620		5240		20500		17800		23400		28500		11700		15200		6810	
Chromium	50	1	U	1	U	1.57	B	1	U	1	U	1.11	B	3.22	B	1.34	B	1	U
Cobalt	--	1.49	B	1.51	B	1.4	B	1.44	B	1.54	B	1	U	1.25	B	3.15	B	1	U
Copper	200	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U
Iron	300	1920		310	J	68400		51900		35200		50000		27000		40200		39.9	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	4070	B	3880	B	4680	B	4890	B	5640		7420		3260	B	3790	B	3430	B
Manganese	300	34.6		5.56	B	1340		1600		1280		1490		2770		3700		8.34	B
Mercury	0.7	0.067	U	0.067	U	0.077	B	0.324		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	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Potassium	--	1250	B	1220	B	3140	B	2870	B	5100		5880		1970	B	2370	B	1170	B
Selenium	10	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Silver	50	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sodium	20000	10300		9610		27300		19100		12900		12600		21200		17400		41800	
Thallium	0.5	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U
Vanadium	--	1.39	B	1	U	1.24	B	1.69	B	1	U	1.29	B	1	U	1.34	B	1	U
Zinc	2000	6.18	B	5.08	B	6.37	B	7.21	B	3.3	U	3.9	B	3.87	B	5.33	B	3.3	U

Table 4. Current Landfill - Summary of 2017 Metals Data

<i>Analyte</i>	Groundwater Standards (µg/L)	088-21 10/24/2017 (µg/L)		088-22 10/24/2017 (µg/L)		088-23 10/24/2017 (µg/L)	
Aluminum	200	68	U	68	U	68	U
Antimony	3	3.5	U	3.5	U	3.5	U
Arsenic	10	2	U	2	U	2.32	B
Barium	1000	20.7	B	24.3	B	6.16	B
Beryllium	3	1	U	1	U	1	U
Cadmium	5	1	U	1	U	1	U
Calcium	--	5370		5690		4590	B
Chromium	50	1	U	1	U	1	U
Cobalt	--	1	U	1.77	B	1.35	B
Copper	200	3	U	3	U	3	U
Iron	300	30	U	183	J	2120	
Lead	25	0.5	U	0.5	U	0.5	U
Magnesium	35000	3020	B	3410	B	2450	B
Manganese	300	6.82	B	19.7		595	
Mercury	0.7	0.067	U	0.067	U	0.067	U
Nickel	100	1.5	U	1.5	U	3.62	B
Potassium	--	970	B	1190	B	945	B
Selenium	10	2	U	2	U	2	U
Silver	50	1	U	1	U	1	U
Sodium	20000	26500		9820		12500	
Thallium	0.5	0.6	U	0.6	U	0.6	U
Vanadium	--	1	U	1	U	1	U
Zinc	2000	3.54	B	3.3	U	4.88	B

Table 5. Current Landfill - Summary of 2017 Radionuclide Data

<i>Analyte</i>	Groundwater Standards pCi/L	087-23 10/24/2017 pCi/L				087-27 10/24/2017 pCi/L				088-109 10/24/2017 pCi/L				088-21 10/24/2017 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	-5.45	U	12.4	7.81	2.08	U	5.71	3.52	-1.74	U	9.64	5.83	3700	UI	50.5	77.3
Beryllium-7	40000	0.862	U	17.8	9.97	-3.14	U	14.6	8.43	-5.02	U	17.6	10.1	22	UJI	18.9	27.6
Cesium-134	80	0.00117	U	1.94	1.12	0.4	U	1.57	0.877	-1.06	U	1.78	1.6	0.813	U	2.23	1.15
Cesium-137	120	-0.96	U	1.6	0.987	-0.0034	U	1.48	0.851	0.543	U	1.77	1.07	0.298	U	2.1	1.19
Co-60	200	-1.41	U	1.48	0.971	0.315	U	1.64	0.878	-0.161	U	1.74	0.964	0.442	U	2.3	1.23
Cobalt-57	4000	-1.01	U	1.37	0.84	-0.355	U	1.17	0.714	-0.261	U	1.39	0.812	0.627	U	1.36	0.848
Europium-152	841	0.787	U	4.75	2.86	0.47	U	4.05	2.25	0.324	U	4.8	2.91	-0.128	U	5.01	2.82
Europium-154	573	-1.34	U	5.04	2.88	-1.09	U	4.4	4	-0.872	U	5.11	2.87	0.272	U	5.86	3.2
Europium-155	4000	-3.32	U	6.06	4.99	-1.64	U	4.82	2.93	-1.11	U	5.51	3.19	3.27	U	7.31	4.27
Manganese-54	2000	-0.539	U	1.66	1.01	-0.14	U	1.38	0.81	-1.19	U	1.48	0.967	-0.314	U	1.95	1.08
Sodium-22	400	-0.561	U	1.8	1.04	0.163	U	1.56	1.34	-0.285	U	1.82	1.02	0.123	U	2.09	1.14
Strontium-90	8	0.493	U	0.523	0.344	0.62	U	0.676	0.434	0.0509	U	0.519	0.276	0.915		0.545	0.417
Tritium	20000	282	U	462	277	42.6	U	450	256	449	U	455	283	-84	U	462	255
Zinc-65	360	-2.02	U	3.7	2.19	0.601	U	3.13	1.87	2.01	U	3.93	2.16	-0.635	U	4.5	2.55

Table 6. Former Landfill - Summary of 2017 Strontium-90 Data

<i>Analyte</i>	Groundwater Standards pCi/L	097-64 10/23/2017 pCi/L				106-02 10/31/2017 pCi/L				106-43 10/23/2017 pCi/L				106-44 10/23/2017 pCi/L				106-45 10/23/2017 pCi/L			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	8	1.42		0.36	0.346	-0.247	U	0.665	0.339	-0.00851	U	0.606	0.303	4.41		0.513	0.702	1.49		0.353	0.373

**Table 7
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 7
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 7
Soil Gas Monitoring Well Description**

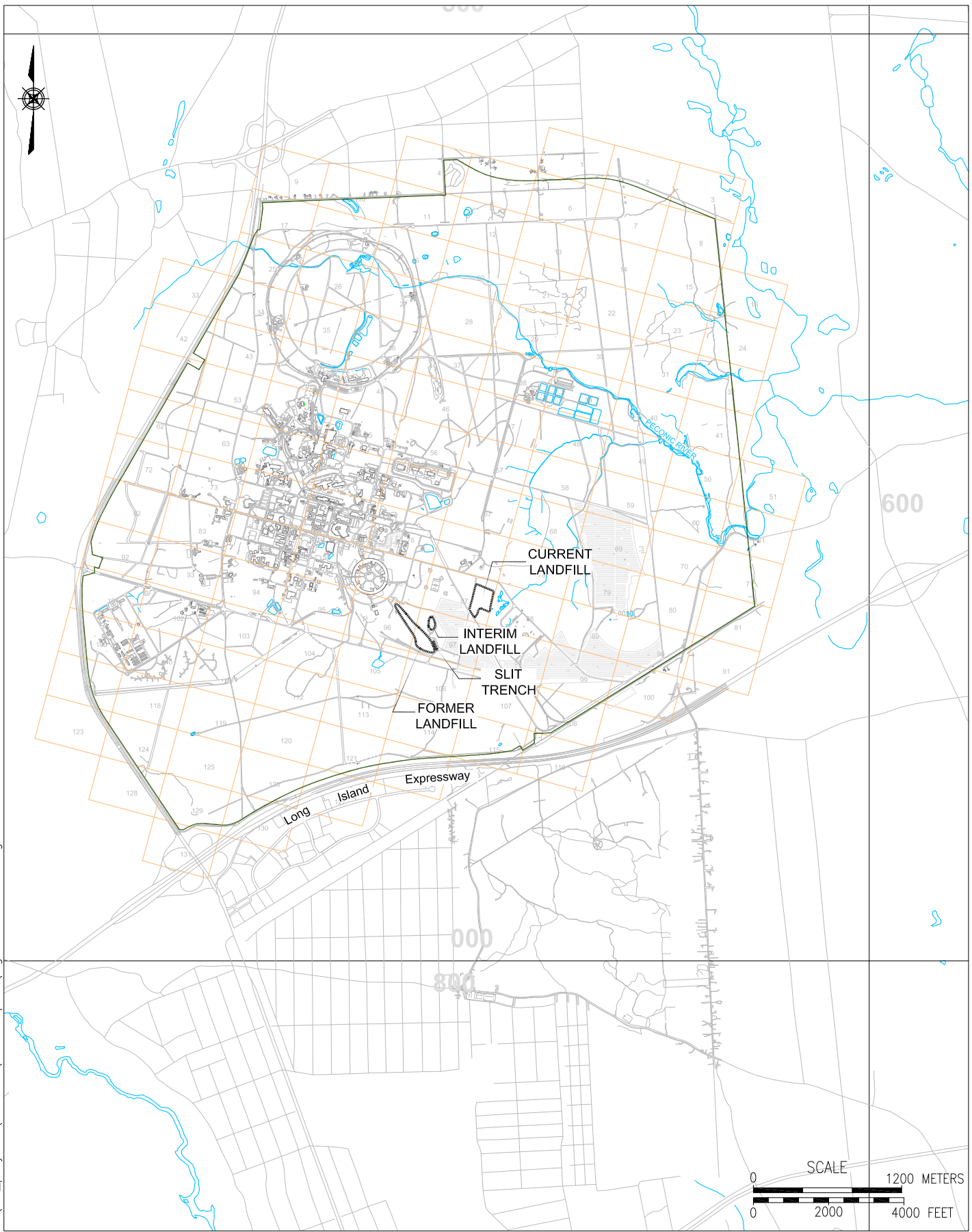
Former Landfill			
Soil Gas Monitoring Well	Screen Location	Top of Screen (Feet BLS)	Bottom Screen (Feet BLS)
SGM-1 PROBE A	Shallow	2.5	10
SGM-1 PROBE B	Intermediate	15	43
SGM-2 PROBE A	Shallow	2.5	10
SGM-2 PROBE B	Intermediate	15	40
SGM-3 PROBE A	Shallow	2	9.5
SGM-3 PROBE B	Intermediate	14.5	36
SGM-4 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 9**2017 Former Landfill Soil-Gas Monitoring Summary Table**

Soil Gas Monitoring Well	Methane (% By Volume) 8/17/2017	LEL (% By Volume) 8/17/2017	Hydrogen Sulfide (ppm by volume) 8/17/2017	Soil Gas Monitoring Well
SGM-01A	0	0	0	SGM-01A
SGM-01B	0	0	0	SGM-01B
SGM-02A	0	0	0	SGM-02A
SGM-02B	0	0	0	SGM-02B
SGM-03A	0	0	0	SGM-03A
SGM-03B	0	0	0	SGM-03B
SGM-04A	0	0	0	SGM-04A
SGM-04B	0	0	0	SGM-04B
SGM-05A	0	0	0	SGM-05A
SGM-05B	0	0	0	SGM-05B
SGM-06A	0	0	0	SGM-06A
SGM-06B	0	0	0	SGM-06B
SGM-07A	0	0	0	SGM-07A
SGM-07B	0	0	0	SGM-07B
SGM-08A	0	0	0	SGM-08A
SGM-08B	0	0	0	SGM-08B
SGM-09A	0	0	0	SGM-09A
SGM-09B	0	0	0	SGM-09B
SGM-10A	0	0	0	SGM-10A
SGM-10B	0	0	0	SGM-10B
SGM-11A	0	0	0	SGM-11A
SGM-11B	0	0	0	SGM-11B
SGM-12A	0	0	0	SGM-12A
SGM-12B	0	0	0	SGM-12B

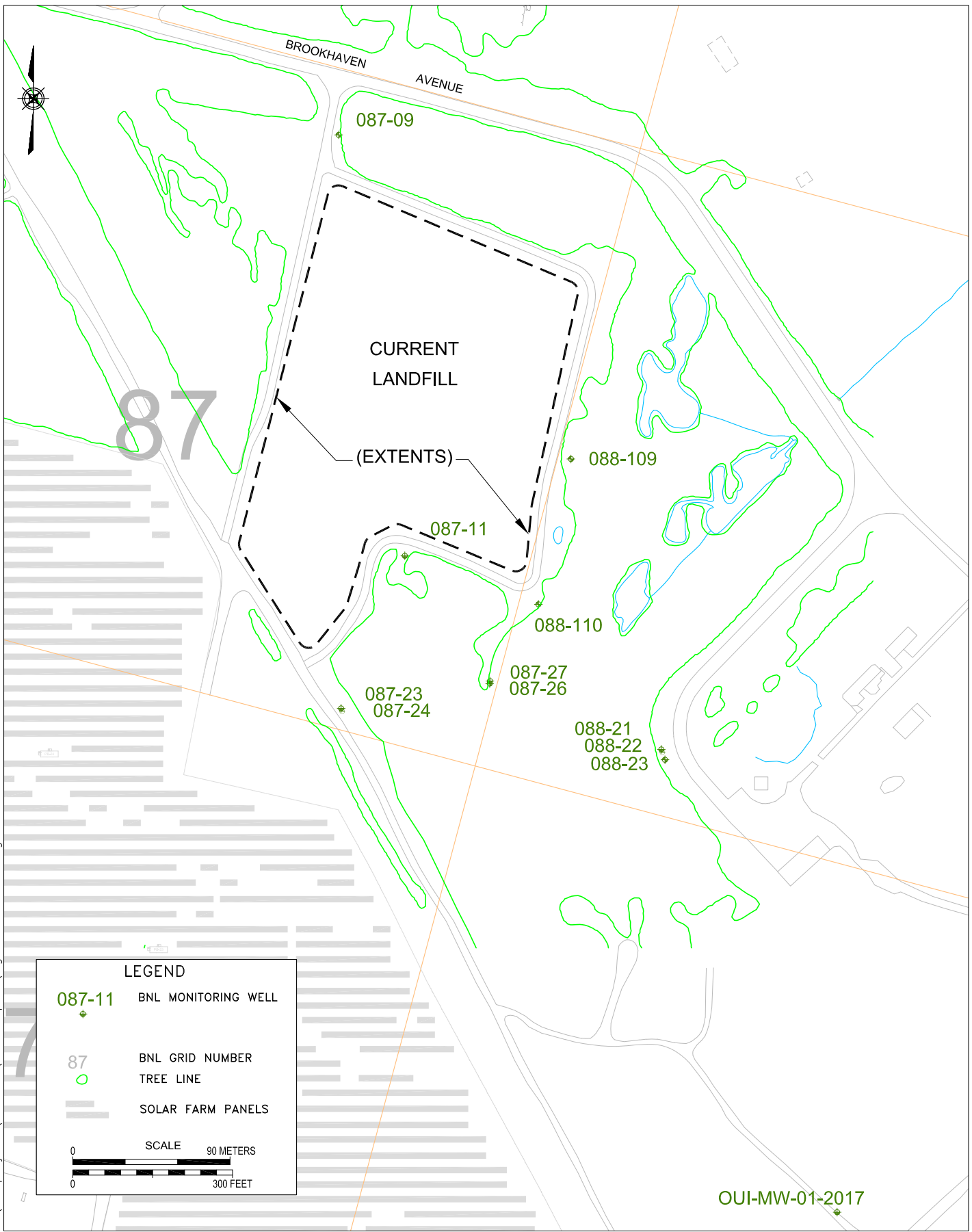
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TITLE:
SITE LOCATION MAP
2017 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN: AJZ	VT:HZ.: -	DATE: 02/21/18	PROJECT NO.: -
CHKD: JEB	APPD: RFH	REV.: -	NOTES: -
FIGURE NO.:		1	

R:\Gw_projects\Landfills\2017 Report\Fig02_02-21-18.dwg



LEGEND

- 087-11 BNL MONITORING WELL
- 87 BNL GRID NUMBER
- TREE LINE
- ▬ SOLAR FARM PANELS

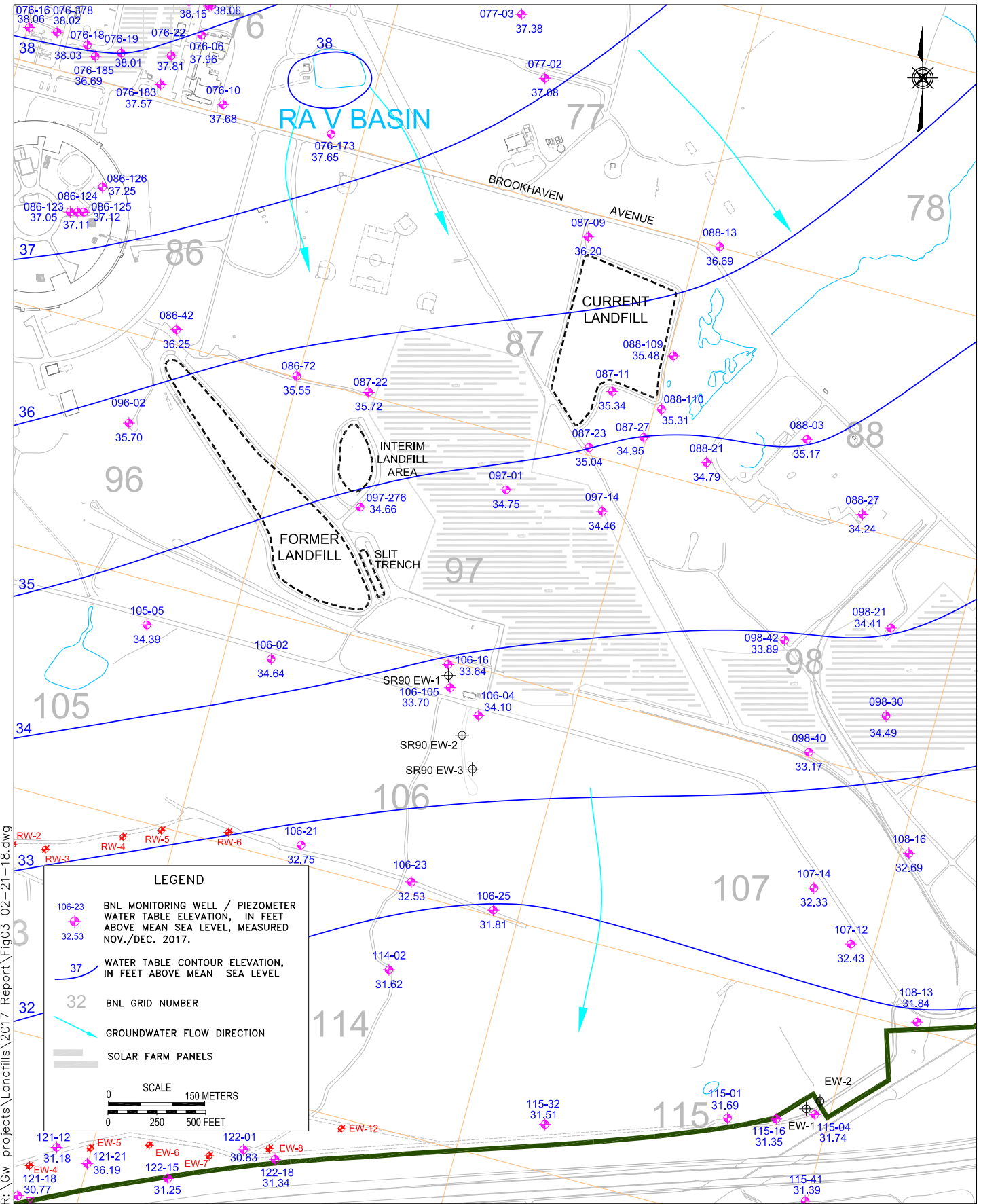
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OUI-MW-01-2017



TITLE:
**CURRENT LANDFILL
 MONITORING WELL LOCATIONS
 2017 ENVIRONMENTAL MONITORING REPORT
 CURRENT AND FORMER LANDFILL AREAS**

DWN: AJZ	VT:HZ.: -	DATE: 02/21/18	PROJECT NO.: -
CHKD: WRD	APPD: RFH	REV.: -	NOTES: -
FIGURE NO.:		2	



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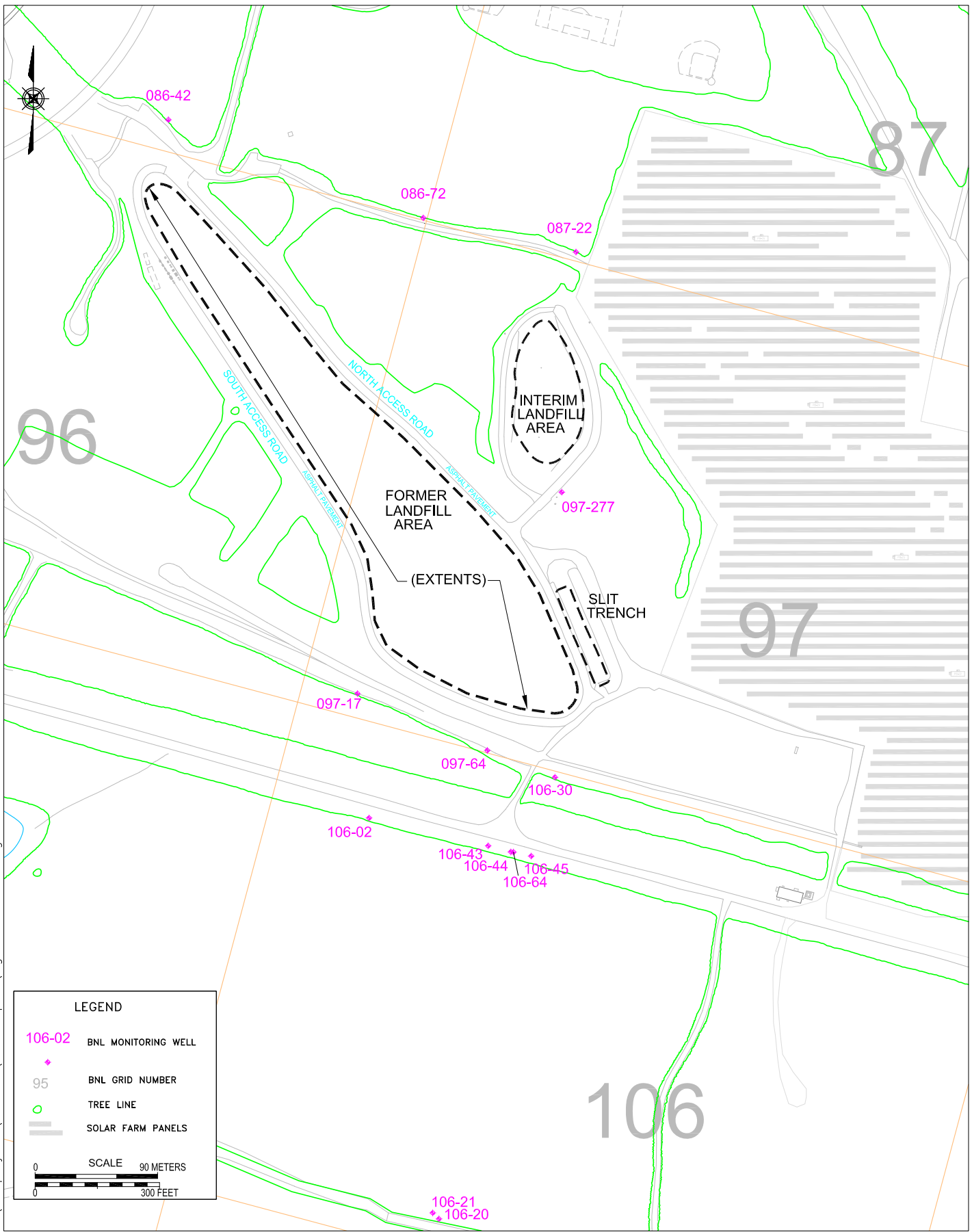


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**WATER TABLE CONTOUR MAP
2017 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS**

DWN: AJZ	VT:HZ.: -	DATE: 02/21/18	PROJECT NO.: -
CHKD: JEB	APPD: RFH	REV.: -	NOTES: -
FIGURE NO.:		3	

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LEGEND

- 106-02 BNL MONITORING WELL
- 95 BNL GRID NUMBER
- TREE LINE
- SOLAR FARM PANELS

SCALE 90 METERS
300 FEET

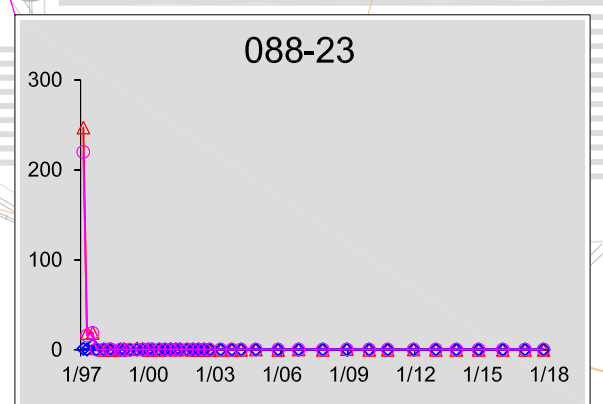
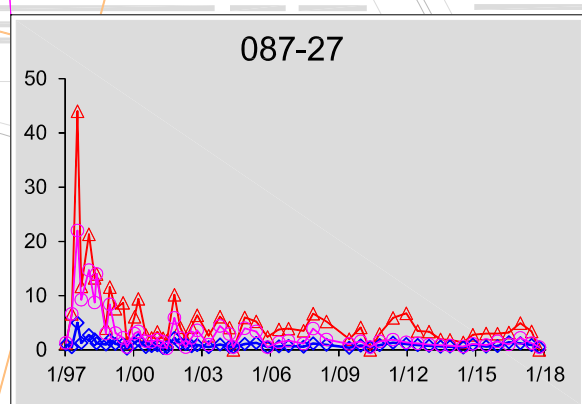
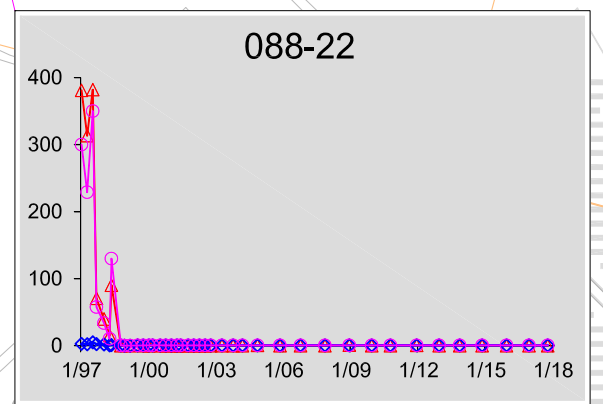
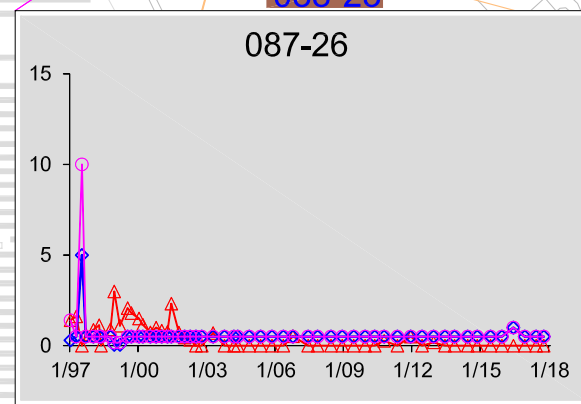
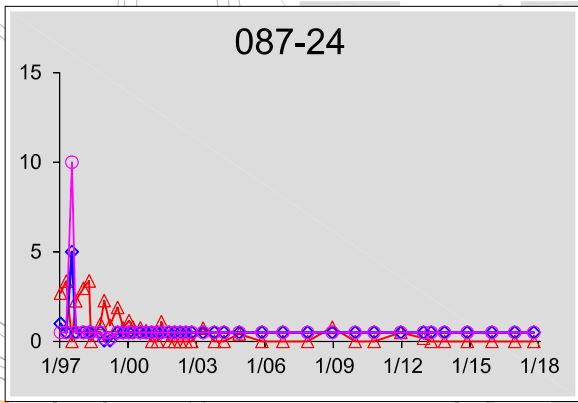
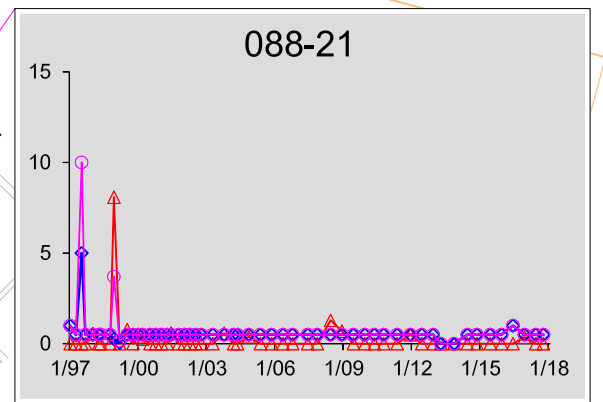
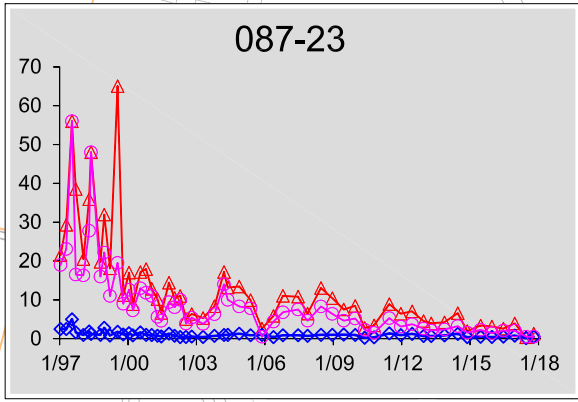
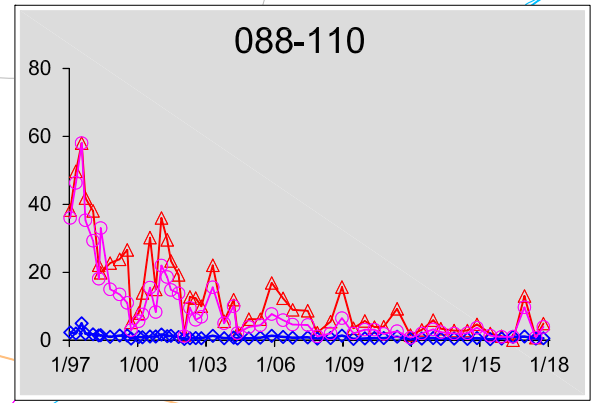
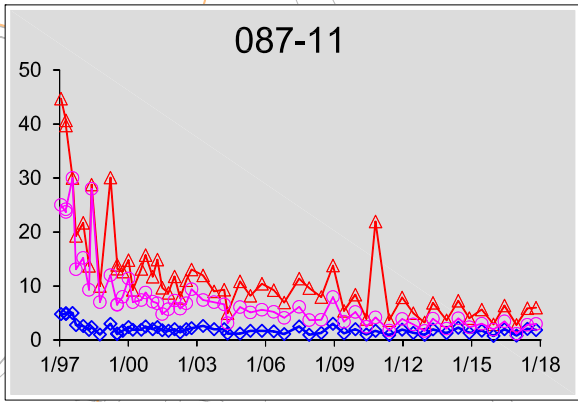
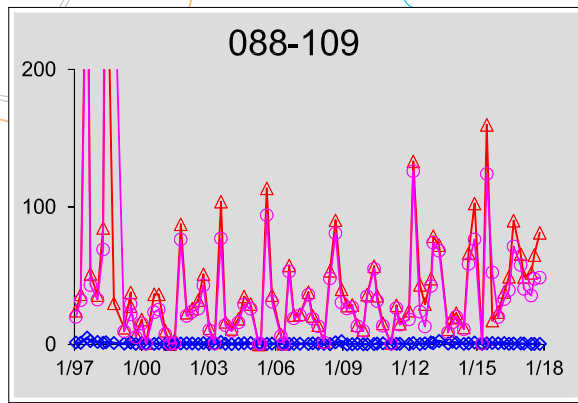
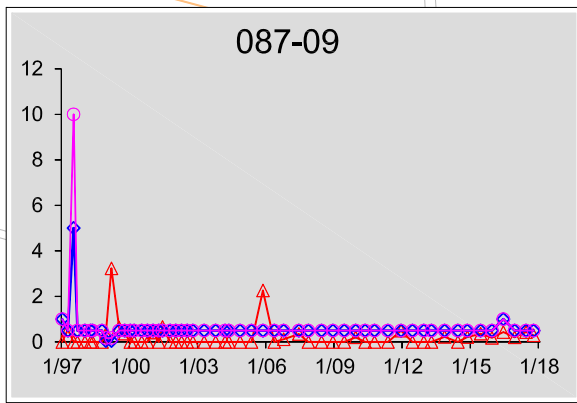
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NATIONAL LABORATORY

ENVIRONMENTAL
PROTECTION DIVISION

TITLE:

**FORMER LANDFILL
MONITORING WELL LOCATIONS**
2017 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN: AJZ	VT:HZ.: -	DATE: 02/21/18	PROJECT NO.: -
CHKD: JEB	APPD: RFH	REV.: -	NOTES: -
FIGURE NO.:			4



LEGEND

- 11 MONITORING WELL
- ◇ Benzene ($\mu\text{G/L}$)
- Chloroethane ($\mu\text{G/L}$)
- △ TVOC ($\mu\text{G/L}$)
- 32 BNL GRID NUMBER
- BNL RECHARGE BASIN
- RAV
- 087-09 BACKGROUND
- 087-11 DOWNGRADIENT
- SOLAR FARM PANELS

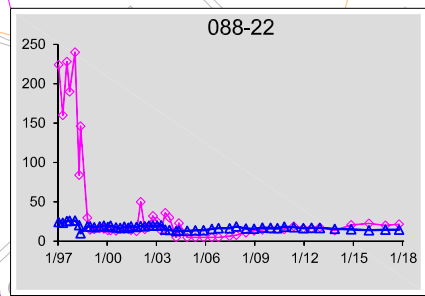
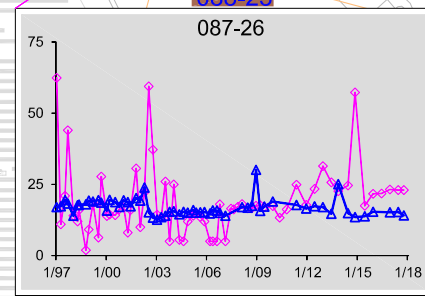
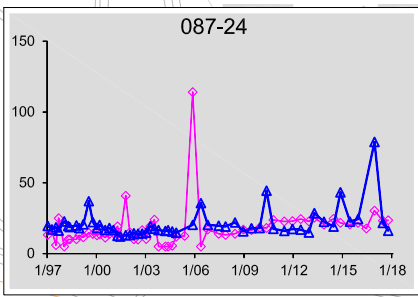
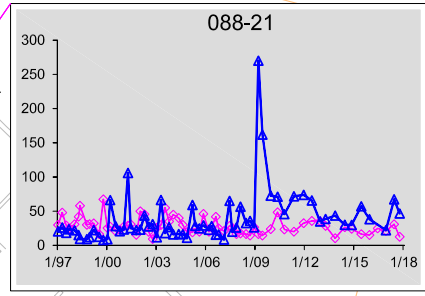
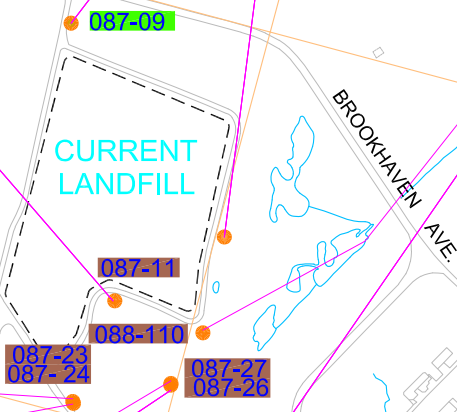
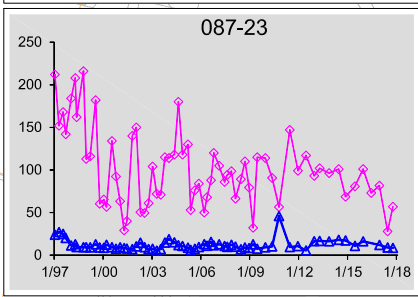
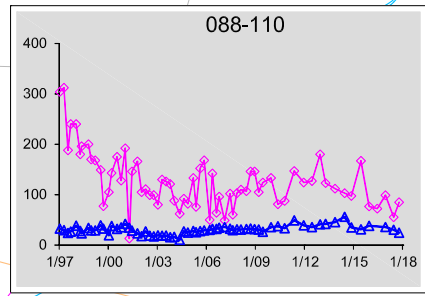
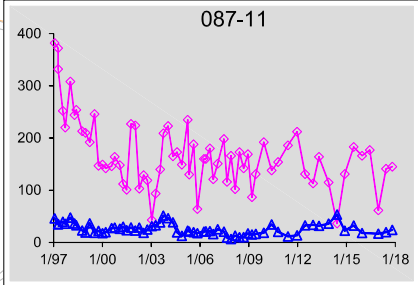
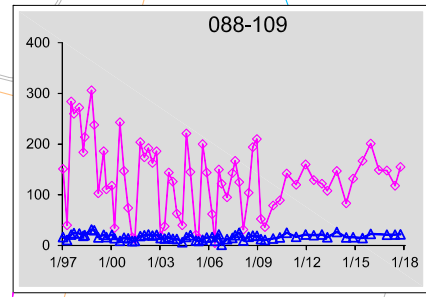
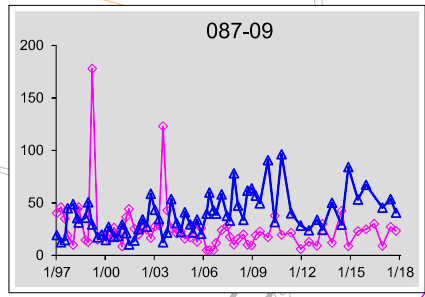
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68



RA V BASIN



HWMF

PRINCETON AVE.

107

LEGEND

- MONITORING WELL
- ◇ Alkalinity (as CaCO₃) (mg/l)
- △ Chloride (mg/l)
- 32 BNL GRID NUMBER
- BNL RECHARGE BASIN
- RA V BACKGROUND
- 087-09 DOWNGRADIENT
- SOLAR FARM PANELS

SCALE
0 500 FEET

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ENVIRONMENTAL
PROTECTION DIVISION

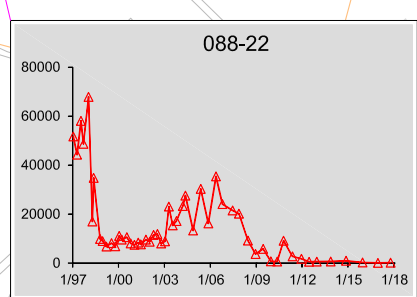
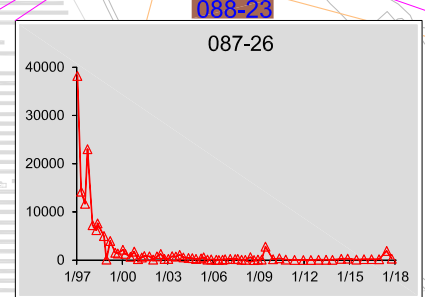
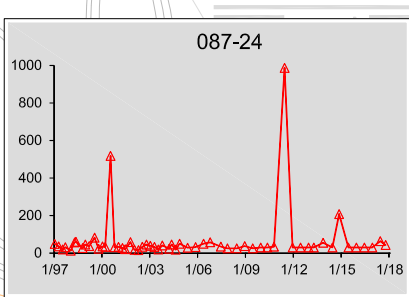
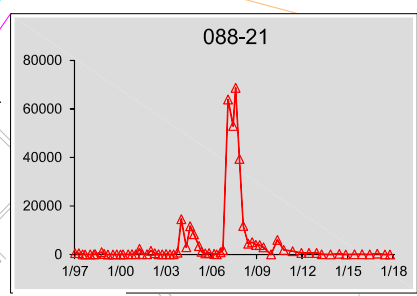
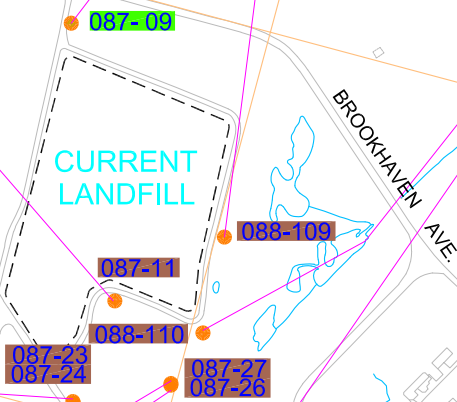
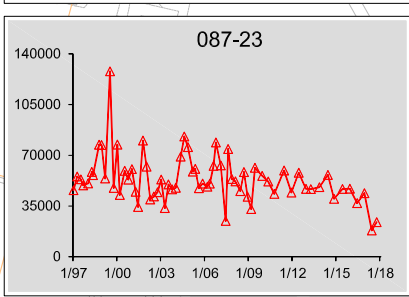
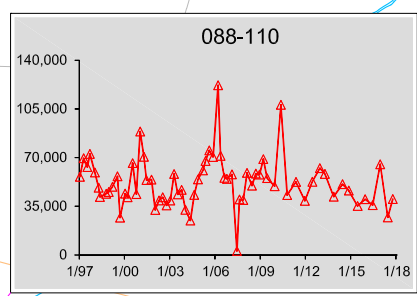
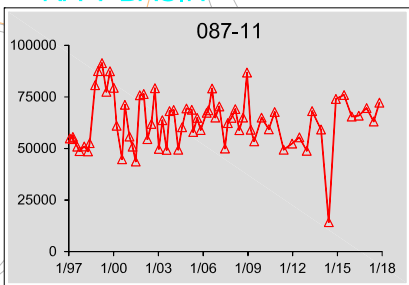
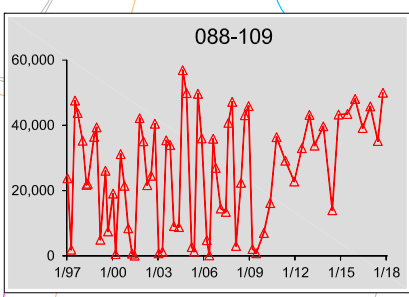
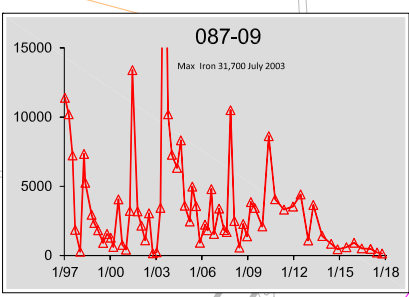
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**CURRENT LANDFILL
ALKALINITY AND CHLORIDE TREND PLOTS
2017 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS**

DWN: AJZ	VT:HZ.: -	DATE: 02/21/18	PROJECT NO.: -
CHKD: JEB	APPD: RFH	REV.: -	NOTES: -
FIGURE NO.:			6

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RA V BASIN



PRINCETON AVE.

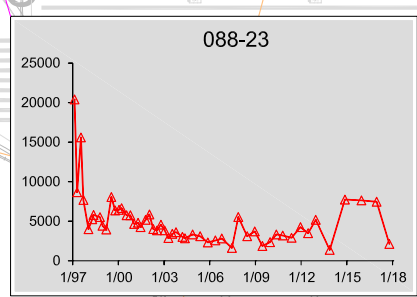
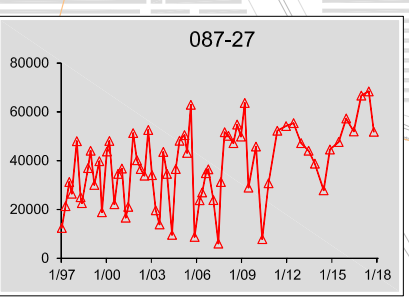
HWMF

LEGEND

- 11 MONITORING WELL
- ▲ IRON (µg/L)
- 32 BNL GRID NUMBER
- BNL RECHARGE BASIN
- RA V
- 087-09 BACKGROUND
- 088-23 DOWNGRAIDENT
- SOLAR FARM PANELS

SCALE

0 500 FEET



107

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NATIONAL LABORATORY

ENVIRONMENTAL
PROTECTION DIVISION

TITLE:

**CURRENT LANDFILL
IRON TREND PLOTS**

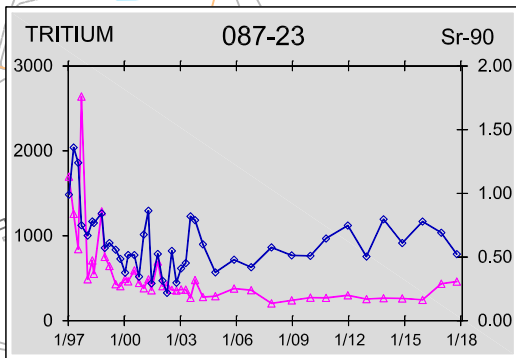
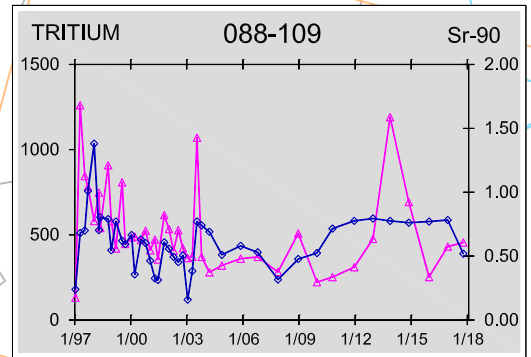
2017 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN: AJZ	VT:HZ.: -	DATE: 02/21/18	PROJECT NO.: -
CHKD: JEB	APPD: RFH	REV.: -	NOTES: -
FIGURE NO.:			7

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RA V BASIN



77

CURRENT LANDFILL

BROOKHAVEN AVE.

87

088-109

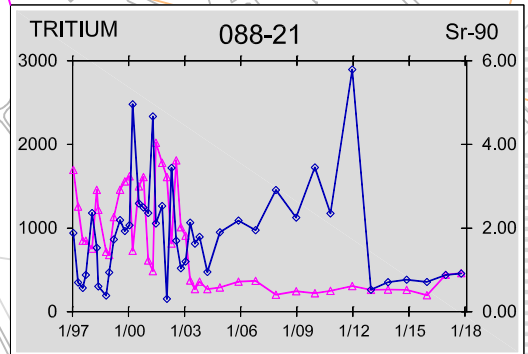
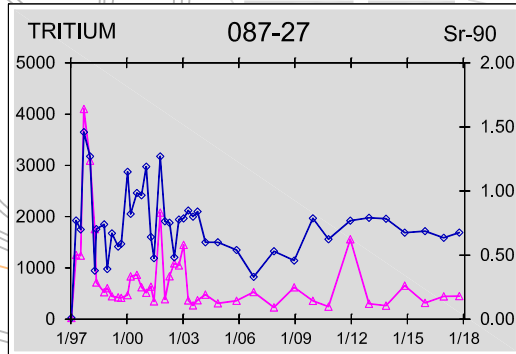
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88

HWMF

088-21



PRINCETON AVE.

107

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LEGEND

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

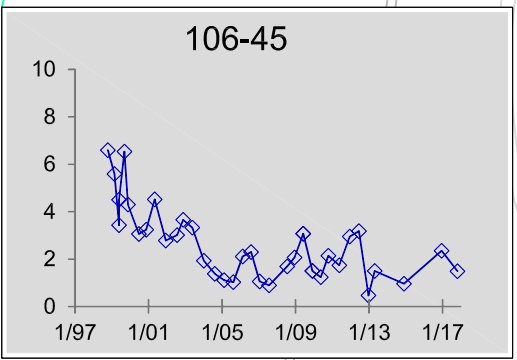
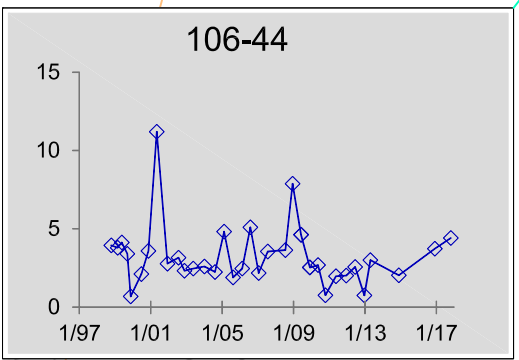
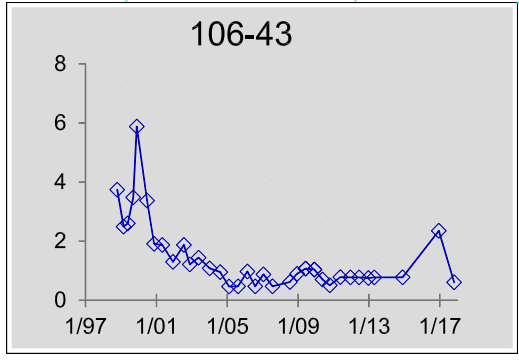
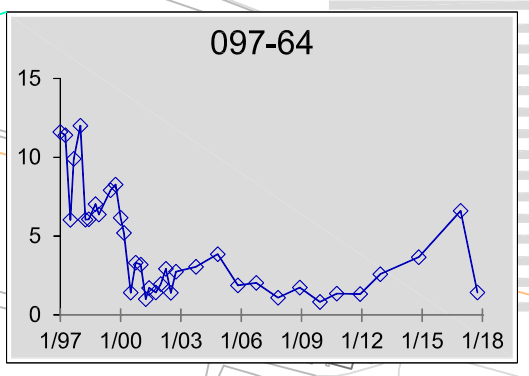
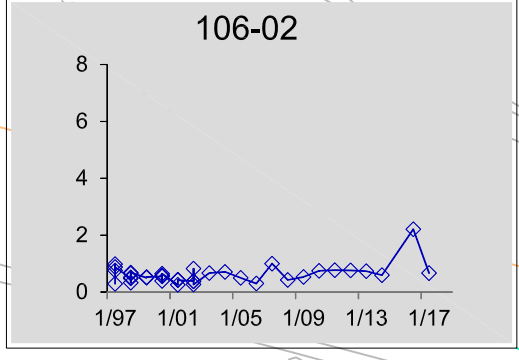
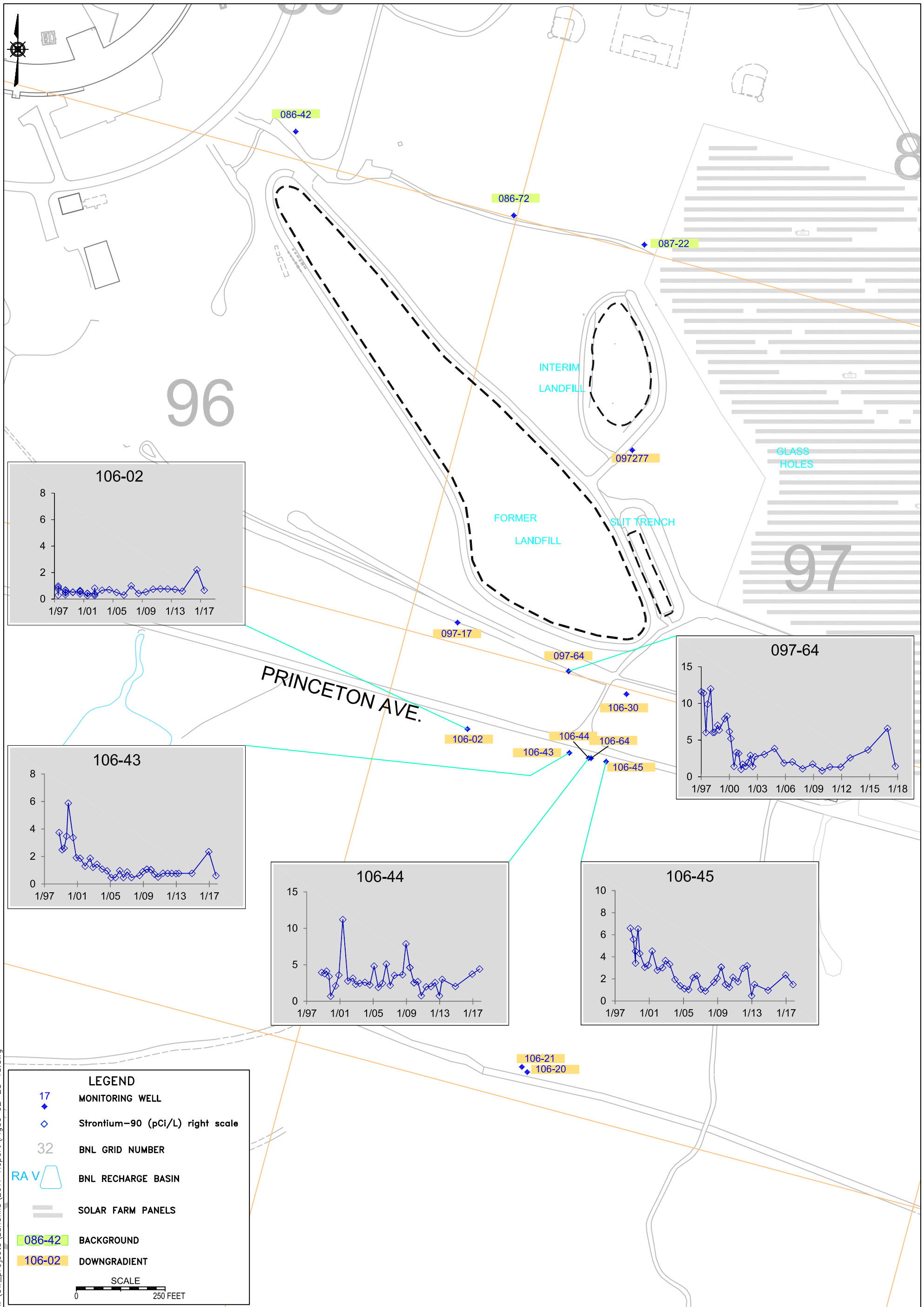
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NATIONAL LABORATORY

ENVIRONMENTAL
PROTECTION DIVISION

TITLE:
**CURRENT LANDFILL TRITIUM
AND STRONTIUM-90 TREND PLOTS**
2017 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN: AJZ	VT:HZ.: -	DATE: 02/21/18	PROJECT NO.: -
CHKD: JEB	APPD: RFH	REV.: -	NOTES: -
FIGURE NO.:			8



LEGEND

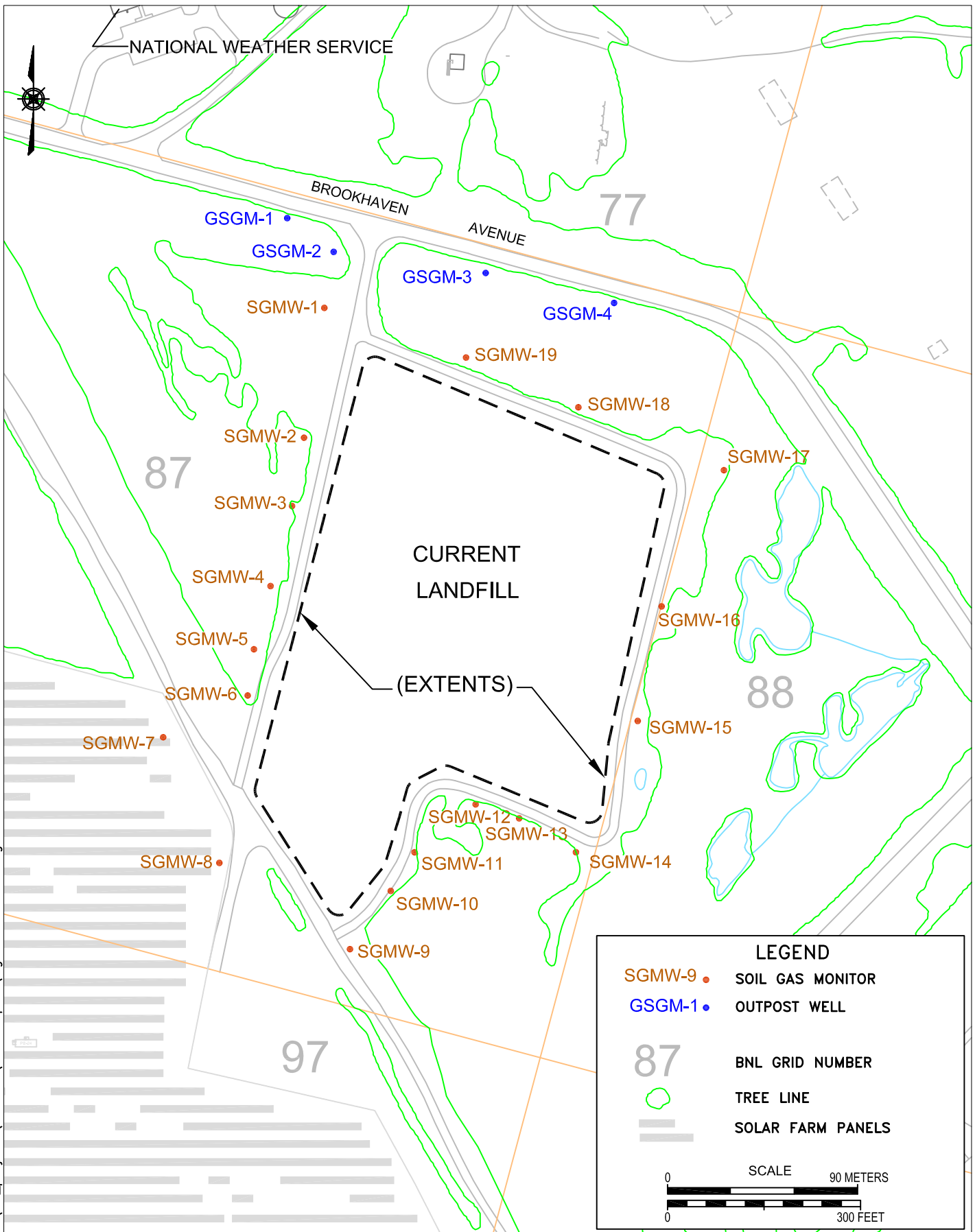
- 17 MONITORING WELL
- ◇ Strontium-90 (pCi/L) right scale
- 32 BNL GRID NUMBER
- RAV BNL RECHARGE BASIN
- ▬ SOLAR FARM PANELS
- 086-42 BACKGROUND
- 106-02 DOWNGRADIENT

SCALE
0 250 FEET

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ENVIRONMENTAL PROTECTION DIVISION	TITLE:	FORMER LANDFILL AREA STRONTIUM-90 TREND PLOTS 2017 ENVIRONMENTAL MONITORING REPORT CURRENT AND FORMER LANDFILL AREAS		
	DWN:	AJZ	VS:HS.:	-
	DATE:	02/28/18	PROJECT NO.:	-
	CHKD:	JEB	APPD:	RFH
	REV.:	-	NOTES:	-
	FIGURE NO.:	9		

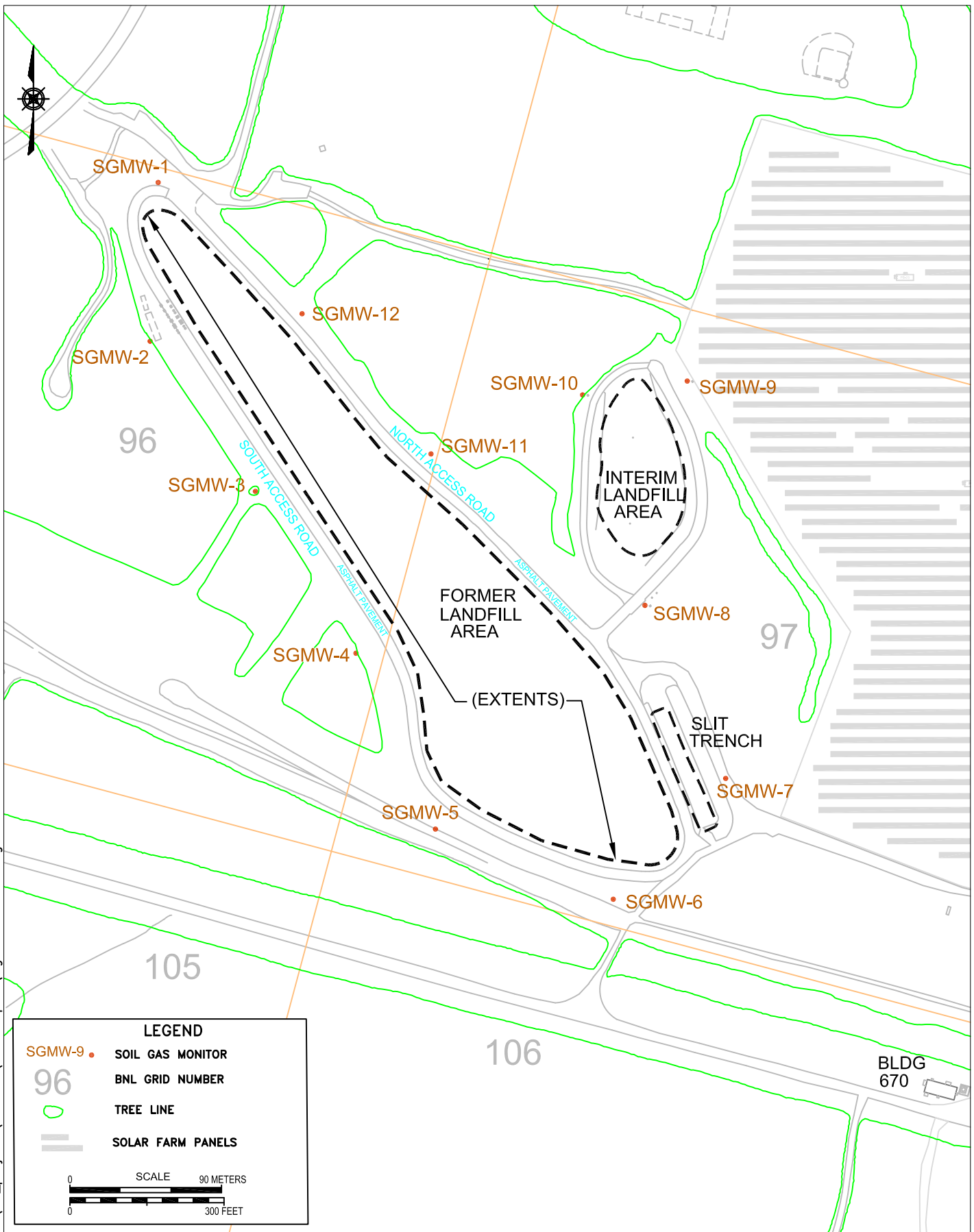
R:\Gw_projects\Landfills\2017 Report\Fig10 02-21-18.dwg



TITLE:
**CURRENT LANDFILL
SOIL-GAS MONITOR LOCATION MAP
2017 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS**

DWN: AJZ	VT:HZ.: -	DATE: 02/21/18	PROJECT NO.: -
CHKD: JEB	APPD: RFH	REV.: -	NOTES: -
FIGURE NO.:			10

R:\Gw_projects\Landfills\2017 Report\Fig11 02-21-18.dwg



Appendix A

Soil-gas Sampling Field Notes

120

Locn	Well ID	Current Log/Run		DM	41° 50' 29.85' Computed
		CH4%	LeL%		
1A	087-62	1.3	28	0	0915
1B	087-78	2.7	58	0	0922
1C	087-79	2.5	50	0	0932
2A	087-63	18.9	7100 878	0	0940
2B	087-80	19.1	7100 882	3	0946
2C	087-81	23.9	7100 878	0	0956
3A	087-64	9.2	7100 884	0	1000
3B	087-82	37.8	7100 756	18	1006
3C	087-83	35.4	7100 748	17	1016
4A	087-65	35.5	7100 710	0	1022
4B	087-84	32.5	7100 650	3	1032
4C	087-85	28.1	7100 562	3	1045
5A	087-66	21.6	7100 432	0	1055
5B	087-86	23.3	7100 466	0	1107
5C	087-87	17.4	7100 348	1	1117
6A	087-67	0.6	12	0	1305
6B	087-88	26.5	7100 530	2	1313
6C	087-89	23.8	7100 476	1	1330
7A	087-68	0	0	0	0945
7B	087-90	0	0	0	0950
7C	087-91	0	0	0	1000
8A	087-69	0	0	0	1015
8B	087-92	0	0	0	1025
8C	087-93	0	0	0	1033

3/22/7

Ⓟ

3/22/7

121

Locn	Well ID	Current Log/Run		DM	Country
		CH4%	LeL%		
9A	087-70	0	0	0	1340
9B	087-94	0	0	0	1348
9C	087-95	0	0	0	1357
10A	087-71	0	0	0	1359
10B	087-96	3	6	0	1407
10C	087-97	1.8	37	0	1406
11A	087-92	.3	16	0	1419
11B	087-98	0	0	0	1425
12A	087-73	23.6	472	11	1433
12B	087-99	14.8	296	1	1437
13A	087-74	0.1	3	0	1444
13B	087-100	15.3	306	0	1450
14A	087-75	0	0	0	1454
14B	087-101	0.1	2	0	1500
15A	088-111	1.4	28	0	1504
15B	088-114	2.4	480	10	1510
16A	087-112	0	0	0	1514
16B	088-115	0	0	0	1524
17A	088-113	0	0	0	1530
17B	088-116	0	0	0	1536
18A	087-76	0	0	0	1542
18B	087-102	4.1	82	0	1554
19A	087-77	0	0	0	1554
19B	087-103	0	0	0	1608

Ⓟ

Location	Clock	Wells ID	Current	Leads	H2O	Count
GS04 1A		NO FI	0	0	0	1155
1B			0	0	0	1152
1C			0	6	0	1145
2A			0	0	0	1135
2B			0	0	0	1130
2C			0	0	0	1122
3A			0	0	0	1112
3B			0	0	0	1106
4A			0	0	0	1056
4B			0	0	0	1050

②

125

Locn	Well ID	Current Leadline	Lecl %	H2S	Conctr No
6/2/17	29,85 73 SW				
GS6A 1A	No FA	0	0	0	1143
1B		0	0	0	1150
1C		0	0	0	1200
2A		0	0	0	1123
2B		0	0	0	1128
2C		0	0	0	1138
3A		0	0	0	1112
3B		0	0	0	1119
4A		0	0	0	1100
4B		0	0	0	1106

6/17-6/2/17

Locn	Well ID	Cur Leadline	Sec %	H2S	Conctr/mile
5A	087-70	0.1	3	0	1305
9B	087-94	0	0	0	1318
9C	087-95	0	0	0	1324
10A	087-71	7.4	700 140	0	1330
10B	087-96	11.2	710 224	3	1340
10C	087-97	10.0	700 200	0	1343
11A	087-72	12.3	700 246	13	1350
11B	087-98	12.6	700 252	0	1406
12A	087-73	33.0	700 660	32	1414
12B	087-99	25.5	710 510	2	1425
13A	087-74	0.2	4	0	1438
13B	087-100	27.4	710 548	0	1450
14A	087-75	1.5	31 134	0	1459
14B	087-101	6.7	700	0	1515
15A	088-111	0	0	0	6/17 1521
15B	088-114	29.5	710 590	58	6/2/17 2145
16A	088-112	0	0	0	water 2149
16B	088-115	0	0	0	water 1000
17A	088-113	0	0	0	water 1001
17B	088-116	0	0	0	1015
18A	087-76	0	0	0	water 1021
18B	087-102	0	0	0	1035
19A	087-97	2.5	51	4	1035
19B	087-103	0.1	2	0	1045

1/2/17
D. m. D.



(122) Clock

Location	Well ID	Current Limit	Leads	H ₂ O	Splicing	Count
1A	105FD	0	0	0	1155	
1B		0	0	0	1152	
1C		0	0	0	1145	
2A		0	0	0	1135	
2B		0	0	0	1130	
2C		0	0	0	1122	
3A		0	0	0	1112	
3B		0	0	0	1106	
4A		0	0	0	1055	
4B		0	0	0	1050	

(Signature)

75° P. Summary 6/1/7

Locate	Well ID	C14%	C14%	Leads	Count
SGMW-1A	087-62	36%	73%	0	0905
1B	087-78	5.2	19.4	2	0912
1C	081-77	4.4	88%	1	0923
2A	087-63	35.2	70% 74	12	0928
2B	087-80	37.8	>100 75L	18	0935
2C	087-81	37.8	>100 71b	5	0945
3A	087-64	15.7	>100 314	18	0948
3B	087-82	45.6	>100 912	28	1053
3C	087-83	15.2	>100 804	19	1005
4A	087-65	41.7	>100 834	9	1008
4B	087-84	39.4	>100 788	6	1015
4C	087-85	32.5	>100 650	4	1025
5A	087-66	31.1	>100 622	0	1720
5B	087-86	29.5	>100 590	5	1826
5C	087-87	22.9	>100 458	1	1836
6A	087-67	0.3	6	0	1840
6B	087-88	31.2	>100 624	5	1846
6C	087-89	28.5	>100 570	2	1856
7A	087-68	0	0	0	0903
7B	087-90	0	0	0	0908
7C	087-91	0	0	0	0918
8A	087-69	0	0	0	0924
8B	087-92	0	0	0	0929
8C	087-93	0	0	0	0939

126

9/24/78

Current Location

24.43^m 7^s

Loc	well ID	CH4 %	Lecl ²	H2S	Current / Total
5A	087-62	2.2	24	0	0930
1B	087-77	4.1	83	0	0740
1C	087-75	3.6	72	0	0450
2A	087-63	43.8	7100 816	3	1000
2B	087-80	46.3	7100 926	24	1010
2C	087-81	33.2	7100 664	0	1020
3A	087-64	26.8	7100 586	17	1030
3B	087-82	27.1	7100 556	0	1040
3C	087-83	10.5	7100 210	8	1100
4A	087-85	42.5	7100 850	6	1710
4B	087-84	40.3	7100 806	7	1717
4C	087-85	34.1	7100 682	7	1225
5A	087-66	0	0	0	1238
5B	087-86	30.9	7100 618	0	1745
5C	087-87	22.3	7100 446	0	1455
6A	087-67	2.7	79	0	1310
6B	087-88	30.6	700 612	9	1320
6C	087-89	27.6	7100 552	4	1330
7A	087-88	5.9	7100 4	0	0910
7B	087-90	1.5	7100 0	0	0716
7C	087-91	1.5	7100 0	0	0426
8A	087-69	14.4	7100 0	2	0430
8B	087-92	20.6	7100 0	0	0437
8C	087-93	0	7100 0	0	0450

9/27/78

9/24/78

Current Location

Calcutt oil

127

Loc	well ID	CH4 %	Lecl ²	H2S	Calcutt oil
9A	087-70	0	0	0	1348
9B	087-44	0	0	0	1355
9C	087-95	0	0	0	1408
10A	087-71	3.9	79	0	1413
10B	087-96	15.3	760 8.6	9	1414
10C	087-97	12.3	760 246	6	1428
11A	087-72	19.4	700 388	20	1433
11B	087-98	20.6	710 412	0	1439
12A	087-73	39.2	710 794	20	1448
12B	087-99	34.8	7100 696	3	1455
13A	087-74	0	0	0	1459
13B	087-100	32.5	7110 650	0	1504
14A	087-75	0	0	0	1511
14B	087-101	6.5	7000 130	0	1518
15A	088-111	0	0	0	1523
15B	088-114	35.9	7110 78	26	1524
16A	088-112	0	0	0	1332
16B	088-115	0	0	0	1529
17A	088-113	0	0	0	1559
17B	088-116	0	0	0	1605
18A	087-76	6.6	7100 132	0	1556
18B	087-102	2.5	51	5	1559
19A	087-97	0	0	0	1605
19B	087-103	0	0	0	1610

1529
1544
1550

45 24.79 49
31.08 100%

125

Location	Well ID	CH ₄ %	Leak%	Current Leak/In	126/11	County/Time
56m - 1A	087-62	5.4	>100		0	0710
1B	087-78	7.2	>100		0	0916
1C	087-79	4.9	>100		0	0925
2A	087-63	41.3	>100		0	0928
2B	087-80	44.7	>100		0	0932
2C	087-81	25.1	>100		0	0942
3A	087-64	25.5	>100		4	0952
3B	087-82	0.2	4		0	0959
3C	087-83	17.2	>100		0	1010
4A	087-65	42.4	>100		0	1018
4B	087-84	39.3	>100		3	1025
4C	087-85	30.6	>100		5	1035
5A	087-66	0.1	2		0	1045
5B	087-86	29.1	>100		5	1100
5C	087-87	21.0	>100		1	1110
6A	087-67	2.1	41		0	1120
6B	087-88	30.6	>100		2	1129
6C	087-89	27.9	>100		2	1139
7A	087-68	0	0		0	0915
7B	087-90	0	0		0	0721
7C	087-91	0	0		0	0731
8A	087-69	0	0		0	0535
8B	087-92	0	0		0	0545
8C	087-93	0	0		0	0555

5m
5m

72 24.87 49
31.08 100%

128

Location	Well ID	CH ₄ %	Leak%	Current Leak/In	H ₂ S	County/Time
606m 1A	No ID	0	0		0	
1B		0	0		0	1115
1C		0	0		0	1125
2A		0	0		0	1135
2B		0	0		0	1045
2C		0	0		0	1055
3A		0	0		0	1106
3B		0	0		0	1028
4A		0	0		0	1038
4B		0	0		0	1015
		0	0		0	1023

5m

38° 20.12 (31)

Loc. no.	WELL ID	CH4%	LeL%	H ₂ S	Count
1A	MJFD	0	0	0	1000
1B		0	0	0	1010
1C		0	0	0	1020
2A		0	0	0	1029
2B		0	0	0	1035
2C		0	0	0	1045
3A		0	0	0	1100
3B		0	0	0	1110
4A		0	0	0	1118
4B		0	0	0	1129

Loc. no.	WELL ID	CH4%	LeL%	H ₂ S	Count
6G6m	1A				
	1B				
	1C				
	2A				
	2B				
	2C				
	3A				
	3B				
	4A				
	4B				

Loc. no.	WELL ID	CH4%	LeL%	H ₂ S	Count
860m	B00				
	1306				
	1316				
	1319				
	1325				
	1335				
	1339			7	
	1346			0	
	1356			23	
	1399			0	
	1410			0	
	1416			0	
	1420			0	
	1427			0	
	1431			0	
	1438			0	
	1445			0	
	1455			0	
	1457			0	
	1506			0	
	1510			0	
	1515			0	
	1519			0	
	1529			0	

Loc. no.	WELL ID	CH4%	LeL%	H ₂ S	Count
9A	087-10	0	0	0	
9B	087-94	0	0	0	
9C	087-55	0	0	0	
10A	087-71	0.0	0	0	
10B	087-96	8.4	7.0	0	
10C	087-97	7.2	7.0	0	
11A	087-72	11.8	2.0	0	
11B	087-97	4.2	7.0	0	
12A	087-73	40.3	7.0	23	
12B	087-93	28.3	7.0	0	
13A	087-74	0.1	0	0	
13B	087-100	3.8	7.0	0	
14A	087-75	0.1	0	0	
14B	087-101	6.7	4.0	0	
15A	088-111	0.1	0	0	
15B	088-114	27.8	7.0	0	
16A	088-112	0	0	0	
16B	088-115	0	0	0	
17A	088-113	0	0	0	
17B	088-116	0	0	0	
18A	087-76	0	0	0	
18B	087-102	0.7	16	0	
19A	087-97	0	0	0	
19B	087-103	0	0	0	

[Handwritten signature]

8/17/17

(41)

82°/65°
Sun 7:00

Fence Location

SM

Call OK
well ID

Time/Comment

Wells

LEL %

CHK %

Well ID

1A	096-41	0	0	0	0950
1B	096-42	0	0	0	1000
2A	096-43	0	0	0	1010
2B	096-44	0	0	0	1018
3A	096-45	0	0	0	1025
3B	096-46	0	0	0	1033
4A	096-47	0	0	0	1045
4B	096-48	0	0	0	1055
5A	097-50	0	0	0	1145
5B	097-51	0	0	0	1155
6A	097-52	0	0	0	1306
6B	097-53	0	0	0	1312
7A	097-54	0	0	0	1322
7B	097-55	0	0	0	1332
8A	097-56	0	0	0	1342
8B	097-57	0	0	0	1400
9A	097-58	0	0	0	1415
9B	097-59	0	0	0	1430



8/17/17

(42)

Fence Location

Wells

LEL

CHK %

Well ID

Location

SUN	-10A	0	0	0	097-60	1500
	-10B	0	0	0	097-61	1515
	-11A	0	0	0	097-62	1525
	-11B	0	0	0	097-63	1535
	-12A	0	0	0	096-49	1540
	-12B	0	0	0	096-50	1548



Wells

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: 1-26-17

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				
Cap	X				
Gas Vents	X				X
2.0 Drainage Structures:					
Toe Drain	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				
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: All OK

Observed Conditions: _____

Recommendations: _____

**BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Eric Kramer

Date of Inspection: 2-23-19

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	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Cap	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Gas Vents	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
2.0 Drainage Structures:					
Toe Drain	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Drainage Channels	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
French Drains/Outfalls	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Subsurface Drainage Pipes/Outfalls	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Manholes	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Recharge Areas	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Monitoring System:					
Soil Gas Wells	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Groundwater Wells	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
4.0 Site Access:					
Asphalt Access Road	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Crushed-Concrete Access Road	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>

B. Description of Further Action Requirements:

1. Location: All OK

Observed Conditions: _____

Recommendations: _____

**BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Eric Kramer

Date of Inspection: 3-29-17

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	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Cap	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Gas Vents	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
2.0 Drainage Structures:					
Toe Drain	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Drainage Channels	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
French Drains/Outfalls	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Subsurface Drainage Pipes/Outfalls	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Manholes	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Recharge Areas	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Monitoring System:					
Soil Gas Wells	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Groundwater Wells	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
4.0 Site Access:					
Asphalt Access Road	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Crushed-Concrete Access Road	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>

B. Description of Further Action Requirements:

1. Location: All OK

Observed Conditions: _____

Recommendations: _____

**BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Eric Kramer
 Date of Inspection: 4-11-2017
 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		✓			/
Cap	/				/
Gas Vents	/				/
2.0 Drainage Structures:					
Toe Drain	/				/
Drainage Channels	/				/
French Drains/Outfalls	/				/
Subsurface Drainage Pipes/Outfalls	/				/
Manholes	/				/
Recharge Areas	/				/
Monitoring System:					
Soil Gas Wells	/				/
Groundwater Wells	/				/
4.0 Site Access:					
Asphalt Access Road	/				/
Crushed-Concrete Access Road	/				/

B. Description of Further Action Requirements:

1. Location: All Areas
 Observed Conditions: Spring vegetation starting to grow

Recommendations: Monitor

**BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Eric Kramer

Date of Inspection: 5-9-17

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		✓		✓	
Cap	✓				✓
Gas Vents	✓				✓
2.0 Drainage Structures:					
Toe Drain	✓				✓
Drainage Channels		✓		✓	✓
French Drains/Outfalls	✓				✓
Subsurface Drainage Pipes/Outfalls	✓				✓
Manholes	✓				✓
Recharge Areas	✓				✓
Monitoring System:					
Soil Gas Wells		✓		✓	
Groundwater Wells	⊗	✓		✓	⊗
4.0 Site Access:					
Asphalt Access Road	✓				
Crushed-Concrete Access Road	✓				✓

B. Description of Further Action Requirements:

1. Location: Landfill, Drainage Channels, Edges, Monitoring + Gas wells
 Observed Conditions: Vegetation in all areas starting to overgrow. Animal Burrow on North Slope

Recommendations: Will contact ground to correct items
* Contacted grounds 5-11-17

BROOKHAVEN NATIONAL LABORATORY LTRA SITE INSPECTION FORM

Location (AOC): Current Landfill and Wooded Wetland _____
 Date of Inspection: 5/9/17 _____
 Name of Inspector(s): R. Howe, J. Burke, W. Dorsch, E. Kramer, V. Racaniello
 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				Grass needs mowing	
Soil (Cap/Cover/Fill)	X				Fill in one burrow	
Other: _____						
2. Drainage Structures:						
Standing Water	X				None	X
Toe Drain	X					X
Drainage Channels	X				Some veg in channels	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				Basin dry	X
Other: _____						
3. Monitoring System:						
Soil Gas Wells		X			Need veg clearing	
Groundwater Wells	X				Locked, need clearing	
Gas Vents	X				No nests	X
Other: __						
4. Site Access:						
Asphalt Access Road	X				Some grass in cracks	X
Crushed-concrete Access Road				X		X
Fence	X					X
Gates/locks	X				Secured, rehung sign	X
Radiological Postings				X		X
Other: Stairs access to cap	X					X
5. Evidence of unauthorized work activities and/or unauthorized access has occurred?						
If yes, describe evidence: _____					<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

B. Description of Other Observations

Observed Conditions/Recommendations: The grass on the cap needs to be cut. An animal burrow on the north slope needs to be filled-in with top soil, erosion control jute netting laid, and seeded. Facilities and Operations were notified 5/9/17 of the follow-up actions needed. Main gate sign was found on ground upon arrival. It was rehung during the inspection. Remaining two signs are in place and gates locked. The Wooded Wetland had some standing water. LUIIC Factsheet Changes: No changes for Current Landfill or Wooded Wetlands.

**BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Eric Kramer
 Date of Inspection: 6-21-19
 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	/				/
Cap	/				/
Gas Vents	/				/
2.0 Drainage Structures:					
Toe Drain	/				/
Drainage Channels	/				/
French Drains/Outfalls	/				/
Subsurface Drainage Pipes/Outfalls	/				/
Manholes	/				/
Recharge Areas	/				/
Monitoring System:					
Soil Gas Wells	/				/
Groundwater Wells	/				/
4.0 Site Access:					
Asphalt Access Road	/				/
Crushed-Concrete Access Road	/				/

B. Description of Further Action Requirements:

1. Location: All OK. Grounds mowed & weed whacked.
 Observed Conditions: _____

Recommendations: _____

**BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s):

Eric Kramer

Date of Inspection:

7-25-17

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		✓			✓
Cap	✓				✓
Gas Vents					✓
2.0 Drainage Structures:					
Toe Drain					✓
Drainage Channels	✓				✓
French Drains/Outfalls	✓				✓
Subsurface Drainage Pipes/Outfalls	✓				✓
Manholes	✓				✓
Recharge Areas	✓				✓
Monitoring System:					
Soil Gas Wells					✓
Groundwater Wells	✓				✓
4.0 Site Access:					
Asphalt Access Road	✓				✓
Crushed-Concrete Access Road	✓				✓

B. Description of Further Action Requirements:

1. Location: All Areas

Observed Conditions: MINOR Vegetation Growth

Recommendations: Will Monitor and Notify grounds For vegetation removal when necessary.

**BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s):

R. Howe

Date of Inspection:

8-30-11

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		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Cap	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Gas Vents	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
2.0 Drainage Structures:					
Toe Drain	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Drainage Channels	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
French Drains/Outfalls	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Subsurface Drainage Pipes/Outfalls	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Manholes	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Recharge Areas	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Monitoring System:					
Soil Gas Wells	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Groundwater Wells	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
4.0 Site Access:					
Asphalt Access Road	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Crushed-Concrete Access Road	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>

B. Description of Further Action Requirements:

1. Location: All areas
 Observed Conditions: Some vegetation in culverts

Recommendations: None

**BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s):

R. Howe

Date of Inspection:

9-28-17

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		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cap	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Gas Vents	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
2.0 Drainage Structures:					
Toe Drain	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Drainage Channels		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
French Drains/Outfalls	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Subsurface Drainage Pipes/Outfalls	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Manholes	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Recharge Areas	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Monitoring System:					
Soil Gas Wells		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Groundwater Wells		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
4.0 Site Access:					
Asphalt Access Road	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Crushed-Concrete Access Road	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>

cut grass

remove veg.

weed whack

B. Description of Further Action Requirements:

1. Location: *All*

Observed Conditions: *need grass cut and weed whacking around soil gas wells, muells, Calverts.*

Recommendations: *Informed F+O of needed repairs*

**BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Bob Howe, J. Burke, A. Steinhilber
 Date of Inspection: 10-26-17
 Purpose of Inspection: Routine Heavy Rainfall Reported Incident
 Time on Site: 1330
 Time off Site: 1415
 Weather Conditions: Cloudy

A. Inspection Checklist

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

Remove veget

B. Description of Further Action Requirements:

1. Location: Grass was recently cut as well as weeds around the
 Observed Conditions: soil gas wells and monitoring wells, and near
the asphalt road.
 - Weeds in drainage channel. All signs in place +
 - no burrows present
 Recommendations: Remove/cut weeds in drainage channel. gates
locked.

BROOKHAVEN NATIONAL LABORATORY LTRA SITE INSPECTION FORM

Location (AOC): Current Landfill and Wooded Wetland _____
 Date of Inspection: 10/26/17 _____
 Name of Inspector(s): R. Howe, J. Burke, A. Steinhauff, M. Samms, K. Schwager
 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				Grass recently cut	X
Soil (Cap/Cover/Fill)	X				No burrows	X
Other: _____						
2. Drainage Structures:						
Standing Water	X				None	X
Toe Drain	X					X
Drainage Channels	X				Some veg in channels	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				Basin dry	X
Other: _____						
3. Monitoring System:						
Soil Gas Wells	X				Veget recently cleared	X
Groundwater Wells	X				Locked	X
Gas Vents	X				No nests	X
Other: __						
4. Site Access:						
Asphalt Access Road	X				Some grass in cracks	X
Crushed-concrete Access Road				X		X
Fence	X					X
Gates/locks	X				Gates 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?						
If yes, describe evidence: _____					<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

B. Description of Other Observations

Observed Conditions/Recommendations: The grass on the cap was recently cut. Some ruts were identified on the slopes from the mowers due to spongy conditions from previous rain. Facilities and Operations cut the vegetation around the soil gas and groundwater monitoring wells, and reeds encroaching near the asphalt roadway. All three point of contact signs are in place and gates locked. The Wooded Wetland had some standing water. LUIC Factsheet Changes: No changes for Current Landfill. For the Wooded Wetlands, update Current Conditions to reflect that sediment and surface water monitoring for metals was discontinued following the 2016 collection.

**BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Eric Kramer
 Date of Inspection: 11-27-17
 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	/				/
Cap	/				/
Gas Vents	/				/
2.0 Drainage Structures:					
Toe Drain	/				/
Drainage Channels	/	✓		✓	/
French Drains/Outfalls	/			✓	/
Subsurface Drainage Pipes/Outfalls	/				/
Manholes	/				/
Recharge Areas	/				/
Monitoring System:					
Soil Gas Wells	/				/
Groundwater Wells	/				/
4.0 Site Access:					
Asphalt Access Road	/				/
Crushed-Concrete Access Road	/				/

B. Description of Further Action Requirements:

1. Location: Drainage Channels
 Observed Conditions: Some Excess Vegetation
 Recommendations: Will Remove in Spring if Required.

**BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Eric Kramer

Date of Inspection: 2-23-17

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: All OK

Observed Conditions: _____

Recommendations: _____

**BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s):

Eric Kramer

Date of Inspection:

3-29-17

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:

ALL OK

Observed Conditions:

Recommendations:

**BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Eric Kramer
 Date of Inspection: 4-19-17
 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		/			/
Cap	/				/
Gas Vents	/				/
2.0 Drainage Structures:					
Toe Drain	/				/
Drainage Channels	/				/
French Drains/Outfalls	/				/
Subsurface Drainage Pipes/Outfalls	/				/
Manholes	/				/
Recharge Areas	/				/
3.0 Monitoring System:					
Soil Gas Wells	/				/
Groundwater Wells	/				/
4.0 Site Access:					
Asphalt Access Road	/				/
Crushed-Concrete Access Road	/				/

B. Description of Further Action Requirements:

1. Location: All Areas
 Observed Conditions: Spring vegetation beginning to grow

Recommendations: Monitor

**BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Eric Kramer
 Date of Inspection: 5-4-17
 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		✓		✓	
Cap	✓				✓
Gas Vents	✓				✓
2.0 Drainage Structures:					
Toe Drain	✓				✓
Drainage Channels		✓		✓	
French Drains/Outfalls	✓				✓
Subsurface Drainage Pipes/Outfalls	✓				✓
Manholes	✓				✓
Recharge Areas	✓				✓
3.0 Monitoring System:					
Soil Gas Wells	✓				✓
Groundwater Wells	✓				✓
4.0 Site Access:					
Asphalt Access Road	✓				
Crushed-Concrete Access Road	✓				✓

B. Description of Further Action Requirements:

1. Location: CAP, Edges & Drainage Channels
 Observed Conditions: Excessive Vegetation Growth in these areas
small pine saplings on landfill
 Recommendations: Will contact Grounds to correct above items
* Contacted Grounds 5-11-17

BROOKHAVEN NATIONAL LABORATORY SITE INSPECTION FORM

Location (AOC): Former Landfill Area (includes the former and interim landfills and slit trench)
 Date of Inspection: 5/4/17
 Name of Inspector(s): R. Howe, W. Dorsch, D. Paquette, A. Steinhauff, 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					X
Soil (Cap/Cover/Fill)	X				No significant burrows	X
Other: _____						
2. Drainage Structures:						
Standing Water	X				No water	X
Toe Drain	X					X
Drainage Channels		X			Minor veg in channels	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				Significant vegetation	X
Other: _____						
3. Monitoring System:						
Soil Gas Wells		X				X
Groundwater Wells	X					X
Gas Vents	X				No nests	X
Other: _____	X					X
4. Site Access:						
Asphalt Access Road		X			Some deterioration	X
Crushed-concrete Access Road		X				X
Fence				X		X
Gates/locks				X		X
Radiological Postings				X		X
Other: LUIIC Signs	X				All signs in place	X
5. Evidence of unauthorized work activities and/or unauthorized access has occurred?					<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
If yes, describe evidence: _____						

B. Description of Other Observations

Observed Conditions/Recommendations: Former Landfill, Interim Landfill, and Slit Trench caps are in good condition. Only two shallow animal burrows were observed on the Former Landfill, which were filled in at the time of inspection. The grass on all three landfills was not yet cut this spring. There is some vegetation in the drainage channels, which will be address by Facilities and Operations maintenance activities. The asphalt on the west side of the landfill is starting to deteriorate. All contact signs were in place. LUIIC Factsheet Changes: None.

**BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Eric Kraner
 Date of Inspection: 6-21-17
 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	/				/
Cap	/				/
Gas Vents	/				/
2.0 Drainage Structures:					
Toe Drain	/				/
Drainage Channels	/				/
French Drains/Outfalls	/				/
Subsurface Drainage Pipes/Outfalls	/				/
Manholes	/				/
Recharge Areas	/				/
3.0 Monitoring System:					
Soil Gas Wells	/				/
Groundwater Wells	/				/
4.0 Site Access:					
Asphalt Access Road	/				/
Crushed-Concrete Access Road	/				/

B. Description of Further Action Requirements:

1. Location: All OK Grounds mowed & weed whacked
 Observed Conditions: _____

 Recommendations: _____

**BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Eric Kramer

Date of Inspection: 7-25-17

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		✓			
Cap	✓				✓
Gas Vents	✓				✓
2.0 Drainage Structures:					
Toe Drain	✓				✓
Drainage Channels	✓				✓
French Drains/Outfalls	✓				✓
Subsurface Drainage Pipes/Outfalls	✓				✓
Manholes	✓				✓
Recharge Areas	✓				✓
3.0 Monitoring System:					
Soil Gas Wells	✓				✓
Groundwater Wells	✓				✓
4.0 Site Access:					
Asphalt Access Road	✓				✓
Crushed-Concrete Access Road	✓				✓

B. Description of Further Action Requirements:

1. Location: ALL AREAS

Observed Conditions: MINOR EXCESSIVE VEGETATION GROWTH
ANIMAL BURROW IN LANDFILL

Recommendations: Will monitor AND NOTIFY grounds for vegetation removal
when necessary and to fill in burrow

**BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): A. Howe

Date of Inspection: 8/30/17

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		✓		✓	need cut
Cap	✓				
Gas Vents	✓				✓
2.0 Drainage Structures:					
Toe Drain	✓				✓
Drainage Channels		✓		✓	remove veg.
French Drains/Outfalls	✓				
Subsurface Drainage Pipes/Outfalls	✓				
Manholes	✓				✓
Recharge Areas	✓				✓
3.0 Monitoring System:					
Soil Gas Wells	✓				
Groundwater Wells	✓				✓
4.0 Site Access:					
Asphalt Access Road	✓				
Crushed-Concrete Access Road	✓				✓

B. Description of Further Action Requirements:

1. Location: All areas

Observed Conditions: S. gray animal burrow identified on south slope, as well as pine saplings

Recommendations: Fto needs to fill in burrow + reseed, and cut pine saplings.

**BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Attave

Date of Inspection: 9-26-17

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		✓		✓	need cut
Cap	✓				✓
Gas Vents					
2.0 Drainage Structures:					
Toe Drain	✓				✓
Drainage Channels		✓		✓	remove veg
French Drains/Outfalls	✓				✓
Subsurface Drainage Pipes/Outfalls	✓				✓
Manholes	✓				✓
Recharge Areas	✓				✓
3.0 Monitoring System:					
Soil Gas Wells	✓				✓
Groundwater Wells	✓				✓
4.0 Site Access:					
Asphalt Access Road	✓				
Crushed-Concrete Access Road	✓				✓

B. Description of Further Action Requirements:

1. Location: _____
 Observed Conditions: All Animal burrow on south slope still not filled - is by F+O. Also need pine saplings removed by

Recommendations: Recontact F+O for needed work

**BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Bob Howe
 Date of Inspection: 10/18/17
 Purpose of Inspection: Routine Heavy Rainfall Reported Incident
 Time on Site: 1340
 Time off Site: 1415
 Weather Conditions: Sunny - 60's

A. Inspection Checklist

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

B. Description of Further Action Requirements:

1. Location: _____
 Observed Conditions: Woodchuck burrow on south edge previously identified during July inspection - previously requested F+O to address. Significant vegetation in drainage channel. Grass was cut recently on caps.
 Recommendations: F+O notified again 10/18/17 to repair burrow. F+O to cut vegetation in channels.

BROOKHAVEN NATIONAL LABORATORY SITE INSPECTION FORM

Location (AOC): Former Landfill Area (includes the former and interim landfills and slit trench)
 Date of Inspection: 10/18/17
 Name of Inspector(s): R. Howe, W. Dorsch, J. Burke, V. Racaniello, K. Schwager
 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				Just cut recently	X
Soil (Cap/Cover/Fill)		X			Burrow on South Slope	
Other: _____						
2. Drainage Structures:						
Standing Water	X				No water	X
Toe Drain	X					X
Drainage Channels		X			Vegetation 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 bee nests	X
Other: _____	X					X
4. Site Access:						
Asphalt Access Road		X			Some deterioration	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?						
If yes, describe evidence: _____					<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

B. Description of Other Observations

Observed Conditions/Recommendations: Former Landfill, Interim Landfill, and Slit Trench caps are in good condition. There was one deep woodchuck burrow observed on the Former Landfill south slope, which was identified and reported during the July monthly inspection. Facilities and Operations (F&O) failed to make the repairs back in July and were notified again on 10/18/17. The grass on all three landfills were recently cut. There is significant vegetation in the drainage channels and two pine seedlings growing on the south slope which need to be addressed by F&O. The asphalt on the west side of the landfill continues to slowly deteriorate. All contact signs were in place. LUIC Factsheet Changes: None.

**BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Eric Kramer

Date of Inspection: 11-27-17

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	✓				✓
Cap		✓		✓	
Gas Vents	✓				✓
2.0 Drainage Structures:					
Toe Drain	✓				✓
Drainage Channels		✓		✓	
French Drains/Outfalls	✓				✓
Subsurface Drainage Pipes/Outfalls	✓				✓
Manholes	✓				✓
Recharge Areas	✓				✓
3.0 Monitoring System:					
Soil Gas Wells	✓				
Groundwater Wells	✓				✓
4.0 Site Access:					
Asphalt Access Road	✓				
Crushed-Concrete Access Road	✓				✓

B. Description of Further Action Requirements:

1. Location: CAL & Drainage Channels
 Observed Conditions: Woodchuck Burrows & Excess Vegetation

Recommendations: Will contact Ground to fill in burrows.
 Wait for Spring to remove Vegetation if it does not die in Winter.

**BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM**

Name of Inspector(s): Eric Kramer

Date of Inspection: 12-20-17

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	/				/
Cap	/				/
Gas Vents	/				/
2.0 Drainage Structures:					
Toe Drain	/				/
Drainage Channels	/				/
French Drains/Outfalls	/				/
Subsurface Drainage Pipes/Outfalls	/				/
Manholes	/				/
Recharge Areas	/				/
3.0 Monitoring System:					
Soil Gas Wells	/				/
Groundwater Wells	/				/
4.0 Site Access:					
Asphalt Access Road	/				/
Crushed-Concrete Access Road	/				/

B. Description of Further Action Requirements:

1. Location: _____
 Observed Conditions: _____

Recommendations: Woodchuck Burrow Filled in by Grounds.
Excessive Vegetation Dying off due to Cold

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	53	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	53.9
SGMW-05A	50.1	49.4	46.5	52
SGMW-05B	50.9	47.5	42	53.7
SGMW-05C	48.7	46.9	38.4	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	11.6	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	0
SGMW-09B	1.2	0	0	2.8
SGMW-09C	2.5	0	0	6.7
SGMW-10A	16.7	0.3	0	5.8
SGMW-10B	16.6	22.8	23	22.7
SGMW-10C	14	14.3	15.8	32.5
SGMW-11A	16.4	18.2	11.4	29.2
SGMW-11B	15.7	26.8	23.5	39.3
SGMW-12A	57.5	25.6	25	29.6
SGMW-12B	51.3	0	36.9	57.2
SGMW-13A	46.3	0	32.3	55.7
SGMW-13B	47.5	0	18.7	0
SGMW-14A	34.9	0	26	0
SGMW-14B	41.4	0	18.2	38.6
SGMW-15A	0	44.2	16	0
SGMW-15B	12.7	0.6	3.6	3.4
SGMW-16A	0	0	0	0
SGMW-16B	0	0	0	0
SGMW-17A	0	0	0.7	0
SGMW-17B	0	0	0	0
SGMW-18A	8.6	0	0	0
SGMW-18B	0.6	0	0	7.1
SGMW-19A	40.8	29	0	0
SGMW-19B	36.7	30.1	16	52.5
GSGM-1A	NA	<	6.9	46.5
GSGM-1B	NA	<	0	<
GSGM-1C	NA	<	0	<
GSGM-2A	NA	<	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-1B	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 F
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	38.9	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.

Bronkhorven National Laboratory
 1998 Landfill Environmental Monitoring Report
 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	26.3	26.1	24.2	20.4	5	0	0	0	SGMW-01A
SGMW-01B	26.1	26.1	24.2	20.4	4	0	0	0	SGMW-01B
SGMW-01C	34	30	29	10.7	1	2	1	2	SGMW-01C
SGMW-02A	67.8	65.3	70.4	61.1	62	3	4	4	SGMW-02A
SGMW-02B	64.1	60	64.8	64.8	60	6	5	4	SGMW-02B
SGMW-02C	61.6	64.7	65	63.1	11	0	0	0	SGMW-02C
SGMW-03A	20.4	90	78.0	33.3	10	0	2	1	SGMW-03A
SGMW-03B	76.8	74	74	61.1	0	0	0	0	SGMW-03B
SGMW-03C	65.3	65.5	65.3	41.5	4	3	4	1	SGMW-03C
SGMW-04A	11.3	61.2	65	61.2	0	7	4	0	SGMW-04A
SGMW-04B	50.0	66	66	30.1	17	4	3	0	SGMW-04B
SGMW-04C	60.6	67.6	57.6	0	3	6	2	0	SGMW-04C
SGMW-05A	48.1	62.4	80	40.8	3	6	5	2	SGMW-05A
SGMW-05B	64	52.1	55.4	47.7	3	4	3	3	SGMW-05B
SGMW-05C	48	50.3	48	11.5	0	7	2	0	SGMW-05C
SGMW-06A	27.3	44.1	30.3	40.8	2	0	0	0	SGMW-06A
SGMW-06B	44.0	40.5	7.0	17.6	15	0	0	1	SGMW-06B
SGMW-06C	16.3	40	4.4	0	2	0	0	0	SGMW-06C
SGMW-07A	2.2	0	7.2	47.2	0	0	0	0	SGMW-07A
SGMW-07C	0	0	7	0	0	3	4	0	SGMW-07C
SGMW-08A	4.0	0.5	0.6	0.1	1	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	3	0	0	0	SGMW-08B
SGMW-08C	0	0	0	0	3	0	0	0	SGMW-08C
SGMW-08E	0	0	0	0	1	0	0	0	SGMW-08E
SGMW-08F	0	0	0	0	3	3	0	0	SGMW-08F
SGMW-08G	0	0	0	0	1	1	1	0	SGMW-08G
SGMW-08H	0	0	0	0	4	0	0	0	SGMW-08H
SGMW-08I	0.7	1.4	1.2	0	2	0	0	0	SGMW-08I
SGMW-08J	3	2.7	2.6	0.7	6	2	1	0	SGMW-08J
SGMW-10A	17.0	30.7	30	28.2	0	0	0	0	SGMW-10A
SGMW-10B	23.5	26.4	30.3	30	2	0	0	0	SGMW-10B
SGMW-10C	20.7	24	25	23.7	0	0	0	0	SGMW-10C
SGMW-11A	10.6	31	30.4	17.0	0	0	0	0	SGMW-11A
SGMW-11B	24.7	20	26.3	36.4	0	0	0	0	SGMW-11B
SGMW-12A	60.3	67.2	60.4	33.0	37	2	1	3	SGMW-12A
SGMW-12B	7	0.2	3	0	11	3	4	0	SGMW-12B
SGMW-12C	0.1	61.6	60	0	0	0	0	0	SGMW-12C
SGMW-12D	17.1	21	20	1.2	0	0	0	0	SGMW-12D
SGMW-13A	0	0	16	0	0	0	0	0	SGMW-13A
SGMW-13B	0	0	0	0	0	0	0	0	SGMW-13B
SGMW-13C	0	1.2	0	0	0	0	0	0	SGMW-13C
SGMW-13D	0	0	0.7	0	0	0	0	0	SGMW-13D
SGMW-13E	0	0	0	0	6	0	0	0	SGMW-13E
SGMW-13F	0	0	0	0	0	0	0	0	SGMW-13F
SGMW-13G	0	0	0	0	0	0	0	0	SGMW-13G
SGMW-13H	0	0	0	0	0	0	0	0	SGMW-13H
SGMW-13I	0	0	0	0	0	0	0	0	SGMW-13I
SGMW-13J	0	0	0	0	0	0	0	0	SGMW-13J
SGMW-13K	0	0	0	0	0	0	0	0	SGMW-13K
SGMW-13L	0	0	0	0	0	0	0	0	SGMW-13L
SGMW-13M	0	0	0	0	0	0	0	0	SGMW-13M
SGMW-13N	0	0	0	0	0	0	0	0	SGMW-13N
SGMW-13O	0	0	0	0	0	0	0	0	SGMW-13O
SGMW-13P	0	0	0	0	0	0	0	0	SGMW-13P
SGMW-13Q	0	0	0	0	0	0	0	0	SGMW-13Q
SGMW-13R	0	0	0	0	0	0	0	0	SGMW-13R
SGMW-13S	0	0	0	0	0	0	0	0	SGMW-13S
SGMW-13T	0	0	0	0	0	0	0	0	SGMW-13T
SGMW-13U	0	0	0	0	0	0	0	0	SGMW-13U
SGMW-13V	0	0	0	0	0	0	0	0	SGMW-13V
SGMW-13W	0	0	0	0	0	0	0	0	SGMW-13W
SGMW-13X	0	0	0	0	0	0	0	0	SGMW-13X
SGMW-13Y	0	0	0	0	0	0	0	0	SGMW-13Y
SGMW-13Z	0	0	0	0	0	0	0	0	SGMW-13Z
SGMW-10A	37.4	17.2	30.4	9.7	0	0	0	1	SGMW-10A
SGMW-18B	30.7	4	4	12	0	0	0	0	SGMW-18B

Soil Gas Monitoring Well	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
GGGM-1A	0	0	0	0	GGGM-1A
GGGM-1B	0	0	0	0	GGGM-1B
GGGM-1C	0	0	0	0	GGGM-1C
GGGM-2A	0	0	0	0	GGGM-2A
GGGM-2B	0	0	0	0	GGGM-2B
GGGM-2C	2	0	0	0	GGGM-2C
GGGM-3A	0	0	0	0	GGGM-3A
GGGM-3B	0	0	0	0	GGGM-3B
GGGM-4A	0	0	0	0	GGGM-4A
GGGM-4B	2	0	0	0	GGGM-4B

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

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

Brookhaven National Laboratory
 1988 Landfill Environmental Monitoring Report
 1998 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) June-88	Methane (% By Volume) October-88	Methane (% By Volume) December-88	LEL (% By Volume) June-88	LEL (% By Volume) October-88	LEL (% By Volume) December-88	Hydrogen sulfide (ppm By Volume) June-88	Hydrogen sulfide (ppm By Volume) October-88	Hydrogen sulfide (ppm By Volume) December-88	Soil Gas Monitoring Well
SGMW-01A	10.5	17.0	10.0	350	350	394	0	0	0	SGMW-01A
SGMW-01B	10.6	10.1	10.0	370	302	372	0	0	0	SGMW-01B
SGMW-01C	17.2	14.2	10.7	344	200	334	0	0	0	SGMW-01C
SGMW-02A	52.4	62.0	55.0	1010	1062	1110	13	13	26	SGMW-02A
SGMW-02B	54.4	65	58.7	1000	1100	1134	3	3	11	SGMW-02B
SGMW-02C	55.3	55.2	57.5	1100	1104	1150	3	3	3	SGMW-02C
SGMW-03A	55.0	41.5	2.0	1102	0	50	3	3	1	SGMW-03A
SGMW-03B	61.4	60.3	61.3	1220	1100	1226	0	0	4	SGMW-03B
SGMW-03C	55.0	53.3	59.5	1100	1080	1180	0	0	3	SGMW-03C
SGMW-04A	53.0	0	39.1	1070	0	702	0	0	2	SGMW-04A
SGMW-04B	53.5	63.0	62.0	1070	1070	1050	0	0	7	SGMW-04B
SGMW-04C	62.4	55.2	40.7	1010	1104	974	2	2	9	SGMW-04C
SGMW-05A	47.0	51.1	47.4	810	1032	944	0	0	0	SGMW-05A
SGMW-05B	40	40	40	800	1030	864	0	0	4	SGMW-05B
SGMW-05C	39.7	39	30.2	794	762	788	0	0	4	SGMW-05C
SGMW-06A	41.1	43.2	48.0	820	862	834	0	0	3	SGMW-06A
SGMW-06B	43.2	43.2	40.6	802	862	834	0	0	6	SGMW-06B
SGMW-06C	43.1	0	40.6	802	862	820	0	0	6	SGMW-06C
SGMW-07A	3.3	0.1	0	0	0	0	0	0	2	SGMW-07A
SGMW-07B	0.9	0	0	0	0	0	0	0	2	SGMW-07B
SGMW-07C	4.4	0.17	1.3	0	34	20	0	0	2	SGMW-07C
SGMW-08A	0	0	0	0	0	0	0	0	2	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	0	2	SGMW-08B
SGMW-08C	0	0	0	0	0	0	0	0	2	SGMW-08C
SGMW-09A	0	0	0	0	0	0	0	0	3	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	3	SGMW-09B
SGMW-09C	0	0	0.1	0	0	2	0	0	3	SGMW-09C
SGMW-10A	21.4	16.7	20	420	314	400	1	1	2	SGMW-10A
SGMW-10B	10.6	26.7	21.1	390	632	420	0	0	3	SGMW-10B
SGMW-10C	17.0	22.0	15.1	560	164	924	0	0	3	SGMW-10C
SGMW-11A	10.3	31.2	18.0	300	624	300	0	0	3	SGMW-11A
SGMW-11B	19.2	26.0	14.0	304	612	284	10	10	3	SGMW-11B
SGMW-12A	49.8	45.1	47.1	830	802	843	30	30	0	SGMW-12A
SGMW-12B	44.2	48.5	47.0	804	800	854	0	0	0	SGMW-12B
SGMW-13A	50.4	0.1	0	1002	0	954	0	0	0	SGMW-13A
SGMW-13B	0.2	0.2	24.6	4	0	402	0	0	0	SGMW-13B
SGMW-14A	7.0	5.9	7.1	102	110	142	0	0	5	SGMW-14A
SGMW-14B	0	22.0	3.1	0	462	60	0	0	5	SGMW-14B
SGMW-15A	0	1.0	2.9	0	32	50	0	0	3	SGMW-15A
SGMW-15B	0	0.1	0	0	0	0	0	0	3	SGMW-15B
SGMW-15A	0	0.1	0	0	0	0	0	0	3	SGMW-15A
SGMW-16A	0	0.1	0	0	0	0	0	0	2	SGMW-16A
SGMW-16B	0	0.1	0	0	0	0	0	0	2	SGMW-16B
SGMW-17A	0	0.1	0	0	0	0	0	0	2	SGMW-17A
SGMW-17B	0	0.1	0	0	0	0	0	0	2	SGMW-17B
SGMW-18A	0	0.1	0	0	0	0	0	0	2	SGMW-18A
SGMW-18B	0	1	0.1	0	20	0	0	0	2	SGMW-18B
SGMW-19A	26.1	23	30.0	802	400	400	0	0	10	SGMW-19A
SGMW-19B	30.1	27.3	20.5	802	544	410	0	0	12	SGMW-19B

measured in water table

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

Soil Gas Monitoring Well	Methane (% By Volume) June-99	Methane (% By Volume) December-99	Methane (% By Volume) June-00	LEL (% By Volume) December-99	LEL (% By Volume) October-99	LEL (% By Volume) December-99	Hydrogen sulfide (ppm By Volume) June-00	Hydrogen sulfide (ppm By Volume) December-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	0	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0	broken valve	0	0	0	0	0	0	0	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	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.

Brookhaven Laboratory
2000 Landfill Environmental Monitoring Report
2000 Current Landfill Cell Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume)		Acetylene (% By Volume)		Methane (% By Volume)		Acetylene (% By Volume)		Hydrogen Sulfide (% By Volume)		Hydrogen Sulfide (% By Volume)		Hydrogen Sulfide (% By Volume)		Cell Gas Monitoring Well
	February-00	June-00	June-00	December-00	February-00	June-00	June-00	December-00	February-00	June-00	September-00	December-00	February-00	September-00	
SGMW-01A	20.0	20.5	21.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-01A
SGMW-01B	18.3	20.3	11.5	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-01B
SGMW-01C	17.5	13.7	11.6	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-01C
SGMW-02A	40.6	64.0	60.0	64.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02A
SGMW-02B	55.1	57.1	60.3	60.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02B
SGMW-02C	58.0	48.3	50.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02C
SGMW-02D	48.3	48.3	64.0	64.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02D
SGMW-02E	67.0	67.0	60.7	60.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02E
SGMW-02F	57.3	61.2	65.0	65.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02F
SGMW-02G	30.7	61.0	51.0	61.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02G
SGMW-02H	40.8	43.0	40.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02H
SGMW-02I	43.0	52.1	43.0	45.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02I
SGMW-02J	47.7	46.4	47.0	47.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02J
SGMW-02K	44.0	50.0	40.2	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02K
SGMW-02L	35.7	43.7	40.7	40.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02L
SGMW-02M	33.0	41.7	40.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02M
SGMW-02N	45.0	45.5	40.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02N
SGMW-02O	41.3	45.3	31.7	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02O
SGMW-02P	0.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02P
SGMW-02Q	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02Q
SGMW-02R	2.8	3.0	1.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02R
SGMW-02S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02S
SGMW-02T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02T
SGMW-02U	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02U
SGMW-02V	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02V
SGMW-02W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02W
SGMW-02X	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02X
SGMW-02Y	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02Y
SGMW-02Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-02Z
SGMW-03A	0.3	20.1	23.7	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03A
SGMW-03B	12.3	21.7	20.1	16.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03B
SGMW-03C	10.8	18.5	22.2	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03C
SGMW-03D	10.1	27.1	64.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03D
SGMW-03E	6.8	28.4	64.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03E
SGMW-03F	43.9	60.0	46.1	46.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03F
SGMW-03G	43.8	40.0	46.1	47.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03G
SGMW-03H	23.4	57.0	62.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03H
SGMW-03I	45.1	0	0	45.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03I
SGMW-03J	2.7	20.3	15.0	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03J
SGMW-03K	0	0	1.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03K
SGMW-03L	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03L
SGMW-03M	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03M
SGMW-03N	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03N
SGMW-03O	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03O
SGMW-03P	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03P
SGMW-03Q	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03Q
SGMW-03R	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03R
SGMW-03S	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03S
SGMW-03T	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03T
SGMW-03U	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03U
SGMW-03V	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03V
SGMW-03W	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03W
SGMW-03X	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03X
SGMW-03Y	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03Y
SGMW-03Z	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	SGMW-03Z

** No Measurement was collected due to either well in the nest, Measurement (n) or calculated, not measured.

Omaha Area Regional Laboratory
 2001 Landfill Environmental Monitoring Report
 2001 District Landfill Gas Monitoring Summary Table

Soil Cell Monitoring Point	Methane (% By Volume)		Hydrogen Sulfide (ppm by volume)		Hydrogen Sulfide (ppm by volume)		Hydrogen Sulfide (ppm by volume)		Hydrogen Sulfide (ppm by volume)	
	March-01	June-01	March-01	June-01	March-01	June-01	March-01	June-01	March-01	June-01
SGNW-07A	32.2	33.1	44.0	262	0.0	0.0	0	0	0	0
SGNW-07B	2.9	0.0	43.4	0	0.0	0.0	0	0	0	0
SGNW-07C	16.3	20.4	329	1056	0.0	0.0	0	0	0	0
SGNW-07D	59.8	57.0	1200	0	>1,000	>1,000	145	0	67	0
SGNW-07E	0.0	0.0	1100	0	0	0	0	0	0	0
SGNW-07F	0.0	0.0	0	0	>1,000	>1,000	0	0	0	0
SGNW-07G	30.0	61.0	750	1160	>1,000	>1,000	5	14	0	0
SGNW-07H	0.0	0.0	154.4	0	>1,000	>1,000	2	2	0	0
SGNW-07I	0.0	0.0	0.5	0	>1,000	>1,000	0	0	0	0
SGNW-07J	0.0	0.0	0.5	0	>1,000	>1,000	0	0	0	0
SGNW-07K	42.0	0.0	0.5	0	>1,000	>1,000	0	0	0	0
SGNW-07L	50.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-07M	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-07N	46.0	40.2	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-07O	43.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-07P	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-07Q	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-07R	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-07S	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-07T	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-07U	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-07V	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-07W	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-07X	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-07Y	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-07Z	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08A	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08B	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08C	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08D	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08E	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08F	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08G	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08H	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08I	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08J	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08K	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08L	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08M	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08N	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08O	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08P	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08Q	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08R	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08S	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08T	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08U	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08V	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08W	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08X	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08Y	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-08Z	0.0	0.0	0.0	0	>1,000	>1,000	0	0	0	0
SGNW-09A	10.0	16.0	210	320	0.0	0.0	0	0	0	0
SGNW-09B	11.2	10.0	224	370	0.12	0.12	2	2	2	2
SGNW-09C	0.0	13.2	180	284	0.70	0.70	10	10	43	43
SGNW-09D	0.0	21.2	170	430	0.0	0.0	0	0	0	0
SGNW-09E	0.0	10.3	172	380	0.0	0.0	0	0	0	0
SGNW-09F	0.0	0.0	0.0	0	0.0	0.0	0	0	0	0
SGNW-09G	42.0	0.0	0.0	0	1002	1002	0	0	0	0
SGNW-09H	44.4	0.0	0.0	0	1114	1114	0	0	0	0
SGNW-09I	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09J	17.4	0.0	0.0	0	160	160	0	0	0	0
SGNW-09K	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09L	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09M	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09N	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09O	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09P	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09Q	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09R	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09S	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09T	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09U	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09V	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09W	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09X	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09Y	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-09Z	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10A	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10B	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10C	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10D	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10E	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10F	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10G	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10H	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10I	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10J	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10K	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10L	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10M	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10N	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10O	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10P	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10Q	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10R	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10S	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10T	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10U	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10V	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10W	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10X	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10Y	0.0	0.0	0.0	0	0	0	0	0	0	0
SGNW-10Z	0.0	0.0	0.0	0	0	0	0	0	0	0

⊖ No Measurements were collected due to other work in the area.
 Measurements in {} are calculated, not measured.

2003 Current Landfill Cell Gas Monitoring Summary

Soil Gas Monitoring Well	Methane		Methane		Methane		Methane		Hydrogen Sulfide		Hydrogen Sulfide		Hydrogen Sulfide		Soil Gas Monitoring Well	
	(% By Volume) March-02	(% By Volume) June-02	(% By Volume) Sept-02	(% By Volume) Dec-02	(% By Volume) March-02	(% By Volume) June-02	(% By Volume) Sept-02	(% By Volume) Dec-02	(ppm by volume) March-02	(ppm by volume) June-02	(ppm by volume) Sept-02	(ppm by volume) Dec-02	(ppm by volume) March-02	(ppm by volume) June-02	(ppm by volume) Sept-02	(ppm by volume) Dec-02
SGMW-01A	13.8	13.1	13.1	18.0	37.0	20.2	10.2	10.2	0	1	1	7	0	0	0	3
SGMW-01B	13.7	11.5	11.5	18.0	37.0	20.2	10.2	10.2	0	1	1	7	0	0	0	3
SGMW-01C	10.0	0.6	0.6	11.0	31.0	17.2	11.0	11.0	0	0	0	0	0	0	0	4
SGMW-02A	48.0	48.0	48.0	50.5	68.0	68.0	68.0	68.0	62	62	62	141	62	62	62	40
SGMW-02B	17.1	34.2	34.2	43.7	43.7	43.7	43.7	43.7	0	0	0	0	0	0	0	77
SGMW-02C	31.4	52.5	52.5	51.7	76.0	57.4	102.4	102.4	0	0	0	0	0	0	0	18
SGMW-02D	36.5	52.4	52.4	65.0	73.0	107.2	107.2	107.2	13	13	13	34	13	13	13	12
SGMW-02E	57.0	57.0	57.0	60.0	116.0	117.2	117.2	117.2	0	0	0	0	0	0	0	0
SGMW-02F	57.0	57.0	57.0	60.0	116.0	117.2	117.2	117.2	0	0	0	0	0	0	0	0
SGMW-02G	40.0	48.8	48.8	48.1	60.0	63.0	63.0	63.0	0	0	0	0	0	0	0	3
SGMW-02H	44.6	44.6	44.6	44.1	60.0	63.0	63.0	63.0	0	0	0	0	0	0	0	3
SGMW-02I	36.5	36.5	36.5	38.0	77.2	77.2	77.2	77.2	25	25	25	32	25	25	25	30
SGMW-02J	37.4	37.4	37.4	41.3	70.2	70.2	70.2	70.2	0	0	0	0	0	0	0	34
SGMW-02K	20.0	31.0	31.0	41.3	70.2	70.2	70.2	70.2	0	0	0	0	0	0	0	20
SGMW-02L	30.7	32.5	32.5	34.2	67.0	67.0	67.0	67.0	0	0	0	0	0	0	0	12
SGMW-02M	36.1	36.1	36.1	41.3	67.0	67.0	67.0	67.0	0	0	0	0	0	0	0	12
SGMW-02N	35.2	35.2	35.2	42.0	75.2	75.2	75.2	75.2	6	6	6	6	6	6	6	2
SGMW-02O	0.2	0.4	0.4	0.0	4	6	6	6	0	0	0	0	0	0	0	1
SGMW-02P	0.2	0.4	0.4	0.0	4	6	6	6	0	0	0	0	0	0	0	1
SGMW-02Q	0.2	0.4	0.4	0.0	4	6	6	6	0	0	0	0	0	0	0	1
SGMW-02R	0.2	0.4	0.4	0.0	4	6	6	6	0	0	0	0	0	0	0	1
SGMW-02S	10.0	10.0	10.0	14.8	21.2	21.2	21.2	21.2	0	0	0	0	0	0	0	2
SGMW-02T	10.0	10.0	10.0	14.8	21.2	21.2	21.2	21.2	0	0	0	0	0	0	0	2
SGMW-02U	0.0	0.0	0.0	17.1	16.0	16.0	16.0	16.0	0	0	0	0	0	0	0	0
SGMW-02V	0.0	0.0	0.0	17.1	16.0	16.0	16.0	16.0	0	0	0	0	0	0	0	0
SGMW-02W	0.0	0.0	0.0	17.1	16.0	16.0	16.0	16.0	0	0	0	0	0	0	0	0
SGMW-02X	0.0	0.0	0.0	17.1	16.0	16.0	16.0	16.0	0	0	0	0	0	0	0	0
SGMW-02Y	0.0	0.0	0.0	17.1	16.0	16.0	16.0	16.0	0	0	0	0	0	0	0	0
SGMW-02Z	0.0	0.0	0.0	17.1	16.0	16.0	16.0	16.0	0	0	0	0	0	0	0	0
SGMW-03A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03C	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03D	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03E	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03F	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03G	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03H	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03I	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03J	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03K	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03L	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03M	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03N	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03O	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03P	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03Q	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03R	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03S	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03T	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03U	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03V	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03W	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03X	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03Y	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
SGMW-03Z	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0

Measurements in ft 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-13B
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 correctly in 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-13B
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-13B
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				LEL				Hydrogen Sulfide				Soil Gas Monitoring Well
	(% By Volume)	(% By Volume)	(% By Volume)	(% By Volume)	(% By Volume)	(% By Volume)	(% By Volume)	(% By Volume)	(ppm by volume)	(ppm by volume)	(ppm by volume)	(ppm by volume)	
	3/24/2008	7/29/2008	9/30/2008	12/9/2008	3/24/2008	7/29/2008	9/30/2008	12/9/2008	3/24/2008	7/29/2008	9/30/2008	12/9/2008	
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-13B
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	SGMW-16B
SGMW-17A	0	0	0	0	0	0	0	0	0	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.

1996/97 FORMER LANDFILL AREA SOIL GAS MONITORING SUMMARY TABLE

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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	0
SGMW-12A	0	0	0.3	0	◇	9	-5	2
SGMW-12B	0	0	0.3	0	◇	5	-5	0

◇ No measurement taken.

Negative numbers reported are due to equipment problems.

Brookhaven National Laboratory

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1998 Former Landfill Area Soil Gas Monitoring Summary Table

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

Soil Gas Monitoring Well	Methane (% By Volume)			
	February-98	May-98	August-98	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	0.1	0	0.1
V-04A	0	0	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	0	0	0	0
V-07B	0	0	0	0
V-08A	0	0	0	0
V-08B	0	0	0	0
V-09A	0	0	0	0
V-09B	0	0	0	0
V-10A	0	0	0	0
V-10B	0	0	0	0
V-11A	0	0	0	0
V-11B	0	0	0	0
V-12A	0	0	0	0
V-12B	0	0	0	0

SGM07 was not accessible

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 1998 Landfill Environmental Monitoring Report
 1998 Former Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) June-98	Methane (% By Volume) October-98	Methane (% By Volume) December-98	LEL (% By Volume) June-98	LEL (% By Volume) October-98	LEL (% By Volume) December-98	Hydrogen sulfide (ppm By Volume) June-98	Hydrogen sulfide (ppm By Volume) October-98	Hydrogen sulfide (ppm By Volume) December-98	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

** No measurement was taken.

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

Well	Methane (% By Volume) February-00	Methane (% By Volume) June-00	Methane (% By Volume) September-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
1	0	0	0	0	0	0	0	2	5	1	1	SGMW-01A
2	0	0	0	0	0	0	0	0	0	0	0	SGMW-01B
3	0	0	0	0	0	0	0	0	0	0	0	SGMW-02A
4	0	0	0	0	0	0	0	0	0	0	0	SGMW-02B
5	0	0	0	0	0	0	0	0	0	0	0	SGMW-03A
6	0	0	0	0	0	0	0	0	0	0	0	SGMW-03B
7	0	0	0	0	0	0	0	0	0	0	0	SGMW-04A
8	0	0	0	0	0	0	0	0	0	0	0	SGMW-04B
9	0	0	0	0	0	0	0	0	0	0	0	SGMW-05A
10	0	0	0	0	0	0	0	0	0	0	0	SGMW-05B
11	0	0	0	0	0	0	0	0	0	0	0	SGMW-06A
12	0	0	0	0	0	0	0	0	0	0	0	SGMW-06B
13	0	0	0	0	0	0	0	0	0	0	0	SGMW-07A
14	0	0	0	0	0	0	0	0	0	0	0	SGMW-07B
15	0	0	0	0	0	0	0	0	0	0	0	SGMW-08A
16	0	0	0	0	0	0	0	0	0	0	0	SGMW-08B
17	0	0	0	0	0	0	0	0	0	0	0	SGMW-09A
18	0	0	0	0	0	0	0	0	0	0	0	SGMW-09B
19	0	0	0	0	0	0	0	0	0	0	0	SGMW-10A
20	0	0	0	0	0	0	0	0	0	0	0	SGMW-10B
21	0	0	0	0	0	0	0	0	0	0	0	SGMW-11A
22	0	0	0	0	0	0	0	0	0	0	0	SGMW-11B
23	0	0	0	0	0	0	0	0	0	0	0	SGMW-12A
24	0	0	0	0	0	0	0	0	0	0	0	SGMW-12B

Amount was collected due to other work in the area.

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

Well Gas Monitoring Well	Methane (% By Volume)			LEL (% By Volume)			Hydrogen Sulfide (ppm by volume)		
	March-01	June-01	September-01	March-01	June-01	September-01	March-01	June-01	September-01
W-01A	0	0	0	0	0	0	3	N/A	1
W-01B	0	0	0	0	0	0	3	N/A	1
W-02A	0	0	0.1	0	0	0.2	4	N/A	2
W-02B	0	0	0	0	0	0	5	N/A	2
W-03A	0	0	0.1	0	0	0.2	4	N/A	3
W-03B	0	0	0.1	0	0	0.2	4	N/A	2
W-04A	0	0	0	0	0	0	5	N/A	0
W-04B	0	0	0	0	0	0	5	N/A	0
V-05A	0	0	0	0	0	0	6	N/A	0
V-05B	0	0	0	0	0	0	5	N/A	0
V-06A	0	0	0	0	0	0	6	N/A	0
V-06B	0	0	0	0	0	0	5	N/A	0
V-07A	0	0	0	0	0	0	5	N/A	0
V-07B	0	0	0	0	0	0	6	N/A	0
V-08A	0	0	0	0	0	0	7	N/A	0
V-08B	0	0	0	0	0	0	6	N/A	0
V-09A	0	0	0	0	0	0	3	N/A	0
V-09B	0	0	0	0	0	0	6	N/A	0
V-10A	0	0	0	0	0	0	8	N/A	0
V-10B	0	0	0	0	0	0	7	N/A	0
V-11A	0	0	0	0	0	0	4	N/A	0
V-11B	0	0	0	0	0	0	6	N/A	0
V-12A	0	0	0	0	0	0	7	N/A	0
V-12B	0	0	0	0	0	0	8	N/A	0

Measurement was collected due to other work in the area.

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.

2014 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 6/10/2014	LEL (% By Volume) 6/10/2014	Hydrogen Sulfide (ppm by volume) 6/10/2014	Soil Gas Monitoring Well
SGMW-01A	0	0	0	SGMW-01A
SGMW-01B	0	0	0	SGMW-01B
SGMW-02A	0	0	0	SGMW-02A
SGMW-02B	0	0	0	SGMW-02B
SGMW-03A	0	0	0	SGMW-03A
SGMW-03B	0	0	0	SGMW-03B
SGMW-04A	0	0	0	SGMW-04A
SGMW-04B	0	0	0	SGMW-04B
SGMW-05A	0	0	0	SGMW-05A
SGMW-05B	0	0	0	SGMW-05B
SGMW-06A	0	0	0	SGMW-06A
SGMW-06B	0	0	0	SGMW-06B
SGMW-07A	0	0	0	SGMW-07A
SGMW-07B	0	0	0	SGMW-07B
SGMW-08A	0	0	0	SGMW-08A
SGMW-08B	0	0	0	SGMW-08B
SGMW-09A	0	0	0	SGMW-09A
SGMW-09B	0	0	0	SGMW-09B
SGMW-10A	0	0	0	SGMW-10A
SGMW-10B	0	0	0	SGMW-10B
SGMW-11A	0	0	0	SGMW-11A
SGMW-11B	0	0	0	SGMW-11B
SGMW-12A	0	0	0	SGMW-12A
SGMW-12B	0	0	0	SGMW-12B

2015 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 8/20/2015	LEL (% By Volume) 8/20/2015	Hydrogen Sulfide (ppm by volume) 8/20/2015	Soil Gas Monitoring Well
SGM-01A	0	0	0	SGM-01A
SGM-01B	0	0	0	SGM-01B
SGM-02A	0	0	0	SGM-02A
SGM-02B	0	0	0	SGM-02B
SGM-03A	0	0	0	SGM-03A
SGM-03B	0	0	0	SGM-03B
SGM-04A	0	0	0	SGM-04A
SGM-04B	0	0	0	SGM-04B
SGM-05A	0	0	0	SGM-05A
SGM-05B	0	0	0	SGM-05B
SGM-06A	0	0	0	SGM-06A
SGM-06B	0	0	0	SGM-06B
SGM-07A	0	0	0	SGM-07A
SGM-07B	0	0	0	SGM-07B
SGM-08A	0	0	0	SGM-08A
SGM-08B	0	0	0	SGM-08B
SGM-09A	0	0	0	SGM-09A
SGM-09B	0	0	0	SGM-09B
SGM-10A	0	0	0	SGM-10A
SGM-10B	0	0	0	SGM-10B
SGM-11A	0	0	0	SGM-11A
SGM-11B	0	0	0	SGM-11B
SGM-12A	0	0	0	SGM-12A
SGM-12B	0	0	0	SGM-12B

2016 Former Landfill Soil-Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 8/17/2016	LEL (% By Volume) 8/17/2016	Hydrogen Sulfide (ppm by volume) 8/17/2016	Soil Gas Monitoring Well
SGM-01A	0	0	0	SGM-01A
SGM-01B	0	0	0	SGM-01B
SGM-02A	0	0	0	SGM-02A
SGM-02B	0	0	0	SGM-02B
SGM-03A	0	0	0	SGM-03A
SGM-03B	0	0	0	SGM-03B
SGM-04A	0	0	0	SGM-04A
SGM-04B	0	0	0	SGM-04B
SGM-05A	0	0	0	SGM-05A
SGM-05B	0	0	0	SGM-05B
SGM-06A	0	0	0	SGM-06A
SGM-06B	0	0	0	SGM-06B
SGM-07A	0	0	0	SGM-07A
SGM-07B	0	0	0	SGM-07B
SGM-08A	0	0	0	SGM-08A
SGM-08B	0	0	0	SGM-08B
SGM-09A	0	0	0	SGM-09A
SGM-09B	0	0	0	SGM-09B
SGM-10A	0	0	0	SGM-10A
SGM-10B	0	0	0	SGM-10B
SGM-11A	0	0	0	SGM-11A
SGM-11B	0	0	0	SGM-11B
SGM-12A	0	0	0	SGM-12A
SGM-12B	0	0	0	SGM-12B