BROOKHAVEN NATIONAL LABORATORY
2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

Prepared by

Brookhaven National Laboratory
Environmental Protection Division
Upton, New York

March 11, 2010

BROOKHAVEN NATIONAL LABORATOR
2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

Executive Summary

This report documents the Operations and Maintenance activities undertaken during the calendar year 2009 for the Current Landfill (AOC 3) and the Former Landfill Areas (Former Landfill AOC 2A, Interim Landfill AOC 2D, and Slit Trench AOC 2E). Brookhaven National Laboratory is responsible for performing this work to comply with the post-closure O&M requirements specified in 6 New York State Code of Rules and Regulations (NYCRR) Part 360, Solid Waste Management Facilities, effective December 31, 1988. The landfill caps are functioning as designed and the 2009 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 2008. Volatile organic compounds (VOCs) and metals continue to be detected downgradient of the Current Landfill. The most prevalent VOCs detected above standards are chloroethane and benzene, at maximum concentrations of 27 µg/L and 2 µg/L, respectively. As with previous years, iron, manganese, and arsenic were detected downgradient from the Current Landfill at concentrations above applicable standards. Concentrations of these metals were similar to those detected in 2008. Maximum concentrations of iron, manganese, and arsenic in downgradient wells were 68,900 µg/L, 6,650 µg/L, and 23 µg/L, respectively. These results are an indicator of continued low level leachate generation at this landfill.

Concentrations of parameters detected in wells downgradient of the Former Landfill Area do not indicate the presence of leachate. VOCs were not detected above standards in Former Landfill Area monitoring wells. Leachate indicator parameters and metals concentrations were generally the same when comparing downgradient monitoring wells to upgradient monitoring wells.

The groundwater monitoring well network and sampling frequencies for both the Current Landfill and the Former Landfill are adequate at this time.

SOIL-GAS MONITORING

Soil-gas monitoring at the Current Landfill indicates that decomposition is still occurring. However, as with prior years, there is no indication that the vapors are migrating beyond the monitoring well network. Therefore, there is no potential risk to the nearby National Weather Service building. Soil-gas monitoring at the Former Landfill Area indicates that there are only minimal detects of hydrogen sulfide, with no detectable levels of methane present. The soil gas monitoring well networks are sufficient to monitor both landfill areas.

MAINTENANCE AND REPAIR

Monthly inspections and maintenance continued throughout 2009. To prevent ruts in the landfills caused by the weight of the lawn mowers and a significant amount of precipitation, the cutting of the grass only occurs when optimal soil conditions are evident. This pattern of vegetation control will continue. Small animal burrows were noted during the biannual LTRA inspections. Also vegetation was noted growing in the drainage channels. Work orders were placed to fill in the animal burrows and the vegetation was removed in June 2009.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ACRONYMS

BNL	Brookhaven National Laboratory
BSA	Brookhaven Science Associates
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CLF	Current Landfill
DCG	Derived concentration guides
DOE	U.S. Department of Energy
DQOs	Data quality objectives
EIMS	Environmental Info. Mgmt. System
FLF	Former Landfill
HWMF	Former Hazardous Waste Management Facility
LEL	Lower explosive limit
MS/MSDs	Matrix spike/matrix spike duplicates
NPL	National Priorities List
NYSDEC	NY State Dept. of Environmental Conservation
NYSDOH	NY State Dept. of Health
O&M	Operations and Maintenance
OU	Operable Unit
PCBs	polychlorinated biphenyls
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
Sr-90	Strontium 90
TDS	Total dissolved solids
TKN	Total Kjeldahl nitrogen
TSS	Total suspended solids
TVOCs	Total volatile organic compounds
UEL	Upper explosive limit
VOCs	Volatile organic compounds

1.0 INTRODUCTION

This report documents the Operation and Maintenance (O&M) activities conducted during calendar year 2009 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 (BNL) is responsible for performing this work to comply with the post-closure O&M requirements specified in the 6 New York State Code of Rules and Regulations (6NYCRR) Part 360, Solid Waste Management Facilities, effective December 31, 1988. The details of the O&M programs are described in the Final Operations and Maintenance Manuals for the Current Landfill (CDM Federal, 1996a) and the Former Landfill Areas (CDM Federal, 1996b).

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

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

This is the fourteenth year of O&M for the Current Landfill, the thirteenth year for the Former Landfill and Slit Trench, and the twelfth 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 December 1996, in accordance with 6 NYCRR Part 360 Section 2.15, Solid Waste Management Facilities (effective December 31, 1988).

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

As required under 6 NYCRR Part 360, groundwater quality must be monitored for a minimum of five years, after which the permittee may request modification of the sampling and analysis requirements. In October 2001, BNL submitted the *Five-Year Evaluation Report for the Current Landfill* (BNL, 2001). This report assessed groundwater trends over the five years after capping, and proposed changes to the sampling program. These changes were implemented in CY02. In July 2006, BNL issued the *Final Five-Year Review Report* which discussed all remediation areas at the site. Review of the Current Landfill was included in this report.

FormerLandfill 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 in the 1940s. Waste disposal operations ceased in 1966, and the landfill was covered with soil. The Interim Landfill also is unlined, and was reportedly used for approximately one year between the time the Former Landfill was closed and the Current Landfill was opened. The Slit Trench is unlined as well, and is believed to have operated between 1960 and 1967 for disposal of construction and demolition debris (CDM Federal, 1996).

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

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

1.2 Overview of the Monitoring Program

Groundwater Monitoring

Data quality objectives for each of BNL's groundwater monitoring programs are presented in the *BNL Environmental Monitoring Plan* (BNL, 2009). 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 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 consists of:

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

Wooded Wetland Monitoring. Surface waters and sediments in the wooded wetland adjacent to the eastern boundary of the Current Landfill are sampled every two years to evaluate possible effects of landfill leachate on Tiger Salamander habitats. Samples were last collected in 2008 and are scheduled for collection again in 2010.

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.

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

2.0 GROUNDWATER MONITORING

2.1 Monitoring Well Networks

2.1.1 Current Landfill

Since February 1996, groundwater quality at the Current Landfill has been monitored using ten downgradient wells and one background monitoring well. Figure 2 depicts the location of the

monitoring wells. Figure 3 shows the water table contours for this area in June 2009. 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
087-26	70–80	Intermediate
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
088-23	120–130	Deep Glacial

BLS = Below Land Surface
*Background well

Screen zones were determined based on the following characteristics:

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

2.1.2 Former Landfill

Since January 1997, groundwater quality at the Former Landfill area has been monitored using eight shallow monitoring wells (three background and five downgradient). The locations of the eight monitoring wells are presented in Figure 4. In addition, six wells, 106-20, 106-21, 106-43, 106-44, 106-45 and 106-64 were moved from the Chemical/Animal Holes project to the Former Landfill Area project. This move was made since the analyte of interest detected in these wells (strontium-90) originated from the Former Landfill. The direction of groundwater flow in the OU I area of the site is generally to the south-southeast. Figure 3 shows the June 2009 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
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
106-30	29–44	Shallow Glacial
106-20	85-95	Intermediate
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 Zone: typical water table within 10 ft of the screen zone.
- Intermediate Zone: typical water table between 10 ft and 100 ft above the screen zone.

2.1.3 Sampling Frequency and Analytical Parameters

Monitoring wells at the Current Landfill were sampled in 2009 during the following periods:

Sampling Event	Sampling Dates
Round 1	March 12 - 13
Round 2	June 4
Round 3	August 26
Round 4	December 1

Based on the recommendation in the 2008 Landfill Report, the sampling frequency was reduced from quarterly to semiannual for all organic and inorganic parameters. The routine sampling schedule was changed to collect samples during the 2nd and 4th quarters. Since the recommendation was approved after the 1st quarter round was collected, there were three complete sampling rounds collected during 2009. As of 2010, only 2 rounds will be collected. As per the schedule listed on

Table 1, during the August round, only well 088-109 was sampled.

Monitoring wells at the Former Landfill were sampled in 2009 during the following periods:

Sampling Event	Sampling Dates
Round 1	June 3
Round 2	December 2-3

As per the schedule listed on Table 1, during the June round, only wells 106-20, 106-21, 106-43, 106-44, 106-45, and 106-64 were sampled.

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

2.1.4 Quality Assurance / Quality Control

The groundwater samples were collected and analyzed in accordance with strict quality assurance, quality control (QA/QC) requirements as described in the BNL Groundwater Monitoring Program Quality Assurance Project Plan (QAPP) (BNL, 1999). The analytical results for groundwater samples collected during 2009 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, and one duplicate sample was collected during the quarter from the Former Landfill. No errors were detected in the duplicate analyses. MS/MSD samples were collected at the same frequency as the duplicates. Chloromethane and bromomethane were detected in various method and trip blanks during 2009. Sample results with concentrations of these compounds within five times the associated blank value were declared non-detect. The amount of qualified data was within acceptable limits and did not adversely impact the review of the groundwater quality.

2.2 Landfill Groundwater Monitoring Results

This section summarizes the results for VOCs, metals, water-chemistry parameters, and radionuclides detected for both the Current Landfill and Former Landfill Area in CY09. The historical trends in concentrations of key contaminants are assessed and shown graphically in Figures 5 through 12. Summary tables of all 2009 landfill groundwater data are presented in Tables 2 through 10. Detections that exceed groundwater standards are in bold text. The tables include groundwater standards, laboratory results, minimum detection limits, and laboratory data qualifiers.

The groundwater standards used for evaluating groundwater data include those contained in the NYSDEC Ambient Water Quality Standards and Guidance Values (June 1998, with addendums April 2000 and June 2004). Groundwater standards for radiological compounds were supplemented with New York State Department of Health's (NYSDOH's) standards for drinking water when a NYSDEC groundwater standard was not available. When there were no groundwater standards for a

radiological compound, a Groundwater Screening Level was used. This value is based on a dose equivalent of 4 mrem/year and was calculated as 4% of the DOE Derived Concentration Guides (DCG) (DOE Order 5400.5) 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 Selected Cleanup Goals listed in the 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 2009 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/or chloroethane, were detected above their respective groundwater standards in three of the 10 downgradient monitoring wells during 2009 (Table 2). 1,1-Dichloroethane was also detected above the groundwater standard in one well. These VOCs have historically been the primary groundwater contaminants detected downgradient of the Current Landfill. No other VOCs were detected above groundwater standards during 2009.

Figure 5 plots the concentration trends of total VOCs (TVOC), benzene, and chloroethane. As shown, VOCs remained relatively stable at low concentrations. Overall, the trend plots also show a distinct decrease in VOC concentrations from the high concentrations seen prior to the installation of the cap. This reflects the positive effects of the capping on the groundwater quality downgradient. Several chloroethane results were slightly elevated during the 2008 monitoring events in wells 088-109, 088-110, and 087-11. The chloroethane concentrations for samples collected during 2009 have returned to previous levels.

Benzene exceeded the 1 µg/L standard in well 087-11. Chloroethane exceeded the 5 µg/L standard in wells 087-11, 087-23, and 088-109. The maximum chloroethane concentration was 26.9 µg/L in well

088-109; which is a decrease from the high of 80.8 µg /L in 2008. Benzene was detected at a maximum of 2 µg/L in well 087-11. There have been no detections of VOCs exceeding groundwater standards in wells 087-24, 088-22, and 088-23 since 1998. These downgradient wells are screened in the mid to deep Upper Glacial Aquifer as perimeter wells to monitor the vertical extent of contamination from the Current Landfill.

2.2.1.2 Water Chemistry Parameters

Groundwater samples near the Current Landfill were analyzed 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 2009 (Table 1). The results are provided in Table 3. Elevated levels of these parameters can be indicative of the presence of landfill leachate. During 2009, ammonia and chloride were the only water chemistry parameters detected above standards.

Ammonia was detected above the standard of 2 mg/L, with exceedances in three downgradient wells (087-11, 087-27, and 088-110) during three sampling events, as shown in Table 3. The highest concentration of 7.03 mg/L was reported for well 088-110 in June. The levels of ammonia detected are consistent with historic data.

Chloride was detected in one well above the standard of 250 mg/L. Well 088-21 had a concentration of chloride at 270 mg/L in March. The concentration decreased each subsequent round to a low of 72.7 mg/L in December. Figure 6 plots these trends. With the exception of well 088-21, the trends for downgradient wells show the low and stable nature of chloride concentrations in the vicinity of the Current Landfill.

During 2009, all sulfate concentrations remained below the groundwater standard of 250 mg/L. The highest sulfate value reported for 2009 was detected in the December sample from monitoring well 088-110 at a concentration of 20.2 mg/L. This is consistent with historic background levels at 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 17.4 mg/L to 22.9 mg/L during 2009. The highest alkalinity concentration during 2009

was detected in downgradient, shallow Glacial Aquifer well 087-11, at 192 mg/L in December. There is no groundwater standard for alkalinity. The concentration trends plotted in Figure 6 show an overall decrease in alkalinity following the capping of the landfill. Alkalinity levels in the background well remained stable during this period.

Total dissolved solids and TSS results were similar to those from previous years. TDS and TSS concentrations in background well 087-09 ranged from 156 mg/L to 194 mg/L, and 7.1 mg/L to 10.4 mg/L, respectively. The maximum concentrations observed in downgradient wells were 565 mg/L and 70.8 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 trends in concentration indicate that the capping is effectively reducing the generation and migration of leachate.

2.2.1.3 Metals

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

During 2009, aluminum, antimony, chromium, iron, nickel, sodium, and thallium in the background well and antimony, arsenic, iron, manganese, and sodium, in downgradient wells were detected above their respective groundwater standards (Table 4). Iron in the downgradient wells peaked at a maximum of 68,900 µg/L in well 088-110 during March. In contrast to background concentrations, in well 87-09, iron ranged from 2,100 µg/L to 3,860 µg/L.

Manganese ranged from 75.2 µg/L to 146 µg/L in background well 087-09, and up to 6,650 µg/L in the downgradient wells. Background sodium levels ranged from 32,800 to 52,900 µg/L; whereas downgradient levels reached a high of 181,000 µg/L.

Arsenic was reported above the standard of 10 µg/L in wells 087-23 and 088-110 at a concentrations of 11.9 µg/L and 23.2 µg/L, respectively. Arsenic detections have historically been observed at similar levels in Current Landfill wells. Antimony was detected above the standard of 3 µg/L in downgradient wells 087-11, and 088-21 at concentrations ranging from 3.4 µg/L to 7.2 µg/L. Thallium was detected in background well, 087-09, above the standard of 0.5 µg/L ranging from 0.5 µg/L to 0.8 µg/L. Nickel and chromium were detected above the standard of 100 µg/L and 50 µg/L, respectively, in background well 087-09. However, neither was detected above standards in any of the downgradient wells.

2.2.1.4 Radionuclides

No radionuclides were detected above groundwater standards during 2009 (Table 5). Strontium-90 (Sr-90), and tritium were the only radionuclides detected during 2009.

Sr-90 was detected in wells 087-09 and 088-21 at concentrations of 1.28 pCi/L and 3.45 pCi/L, respectively, during December. These are well below the standard of 8 pCi/L.

Tritium was detected significantly below the groundwater standard of 20,000 pCi/L with a maximum value of 622 pCi/L in well 087-11 (Figure 8). Tritium and Sr-90 concentrations have not exceeded groundwater standards in any wells since 1998.

2.2.2 Former Landfill

2.2.2.1 VOCs

During 2009, there were no detections of VOCs above groundwater standards in wells in the Former Landfill Area (Table 6). The compounds consistently found in the Former Landfill Area monitoring wells include 1,1,1-trichloroethane, and chloroform. Chloroform was reported in several wells during the year at concentrations ranging from 0.27 µg/L to 2.1 µg/L, well below the groundwater standard of 7 µg/L. 1,1,1-Trichloroethane detections ranged from 0.3 µg/L to 1.9 µg/L. These concentrations are well below the standard of 5 µg/L. Figure 9 shows plots of the historical VOC detections for the Former Landfill Area monitoring wells. During 2009, VOCs were detected at the

Former Landfill Area in several wells, but only at trace concentrations, indicating that the cap on the landfill is operating as intended.

2.2.2.2 Water Chemistry Parameters

Groundwater samples from monitoring wells in the Former Landfill Area were analyzed for sulfate, nitrite, nitrate, total nitrogen, chloride, alkalinity, TDS (TDS or residue, non-filterable) and TSS (TSS or residue, filterable). During 2009, none of the of water chemistry parameters exceeded applicable groundwater standards (Table 7). In general, all of the landfill leachate indicator parameter concentrations in the downgradient wells were indistinguishable from concentrations in the upgradient wells in 2009. These trends indicate that the landfill cap is effective.

Sulfate concentrations ranged from 8.6 mg/L to 9.6 mg/L in the background wells, and from 5.7 mg/L to 23.7 mg/L in downgradient wells, significantly below the standard of 250 mg/L.

Nitrogen in the form of nitrate (NO_3), and chloride were consistently low with concentrations up to 1.2 mg/L and 38.4 mg/L, respectively in the background wells and concentrations up to 1.2 mg/L and 12.8 mg/L, respectively in the downgradient wells. The trends plotted in Figure 10 indicate chloride concentrations are stable over time.

Alkalinity concentrations ranged from 5.5 mg/L to 33.2 mg/L in background wells and from 5 mg/L to 21.8 mg/L in downgradient wells. The trends plotted in Figure 10 demonstrate that the alkalinity concentrations in 2009 continue to be at background levels.

TDS concentrations ranged from 32 mg/L to 146 mg/L in the background wells, and from 28 mg/L to 59 mg/L in the downgradient wells. TSS concentrations were nondetect in the background wells, and ranged from nondetect to 10.4 mg/L in the downgradient wells.

TKN concentrations ranged from 0.05 mg/L to 0.09 mg/L in the background wells. TKN concentrations in the downgradient wells ranged from nondetect to 0.16 mg/L.

2.2.2.3 Metals

The sampling results are summarized in Table 8, and concentration trend plots for iron are shown on Figure 11. Iron was the only metal detected that exceeded the groundwater standards in

downgradient wells during 2009. Downgradient well 106-02 had a concentration of 956 µg/L in December. This is above the standard of 300 µg/L.

2.2.2.4 Pesticides/PCBs

There were no detections of pesticides or polychlorinated biphenyls (PCBs) during 2009. The sampling results are summarized in Table 9.

2.2.2.5 Radionuclides

Tritium was not detected in any wells during 2009. Strontium-90 was detected in five wells in 2009 below the groundwater standard of 8 pCi/L. Detects ranged from 1.07 pCi/L to 4.62 pCi/L in well 106-44. The sampling results are summarized in Table 10, and concentration trend plots are shown on Figure 12.

3.0 WOODED WETLAND MONITORING

Sampling at the Wooded Wetland is performed as part of the compliance monitoring for the Current Landfill. Prior to the capping of the Current Landfill, leachate was periodically observed in the wetland. The monitoring is focused on metal concentrations in the sediment and surface water to evaluate potential risks to the local Tiger Salamander population. Samples are collected every two years. Samples were last collected in 2008 and are scheduled for collection again in 2010.

4.0 SOIL-GAS MONITORING

4.1 Soil-gas Monitoring Networks

Soil-gas readings were collected from wells surrounding the Current Landfill in March, July, November, and December 2009 and from the Former Landfill in March, July, and December 2009. For the Former Landfill, the soil-gas monitoring schedule was changed to collect samples during the 2nd and 4th quarters based on a recommendation in the 2008 Landfill Report. Since the recommendation was approved after the 1st quarter round was collected, there were three complete soil-gas rounds collected during 2009. Methane, lower explosive limit (LEL), and hydrogen sulfide were measured using a Landtec GA-90 (Serial # 690). The LEL for methane is 5.3% and the upper explosive limit (UEL) is 15%.

4.1.1 Current Landfill

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

4.1.2 Former Landfill Area

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

4.1.3 Sampling Frequency

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

Sampling Event	Current Landfill	Former Landfill
Round 1	March 2009	March 2009
Round 2	July 2009	July 2009
Round 3	November 2009	December 2009
Round 4	December 2009	None

4.2 Results of Soil-Gas Monitoring

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

4.2.1 Current Landfill

A total of 23 soil-gas monitoring well clusters are positioned around the Current Landfill (Figure 13). Potential receptors, or areas where methane can accumulate in the vicinity of the Current Landfill, include the National Weather Service building located 480 ft north northwest of the Current Landfill on the north side of Brookhaven Avenue. Should methane extend to the south side of Brookhaven Avenue, active measures will be required to control its migration. The four outpost soil-gas wells, 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.

The results of the soil-gas monitoring for 2009 are summarized in Table 12. Appendix A contains the field notes recorded during the sampling events. Instrument measurements show that methane continues to be generated in several areas of the landfill. The percent of the LEL is elevated along the western side and the southeast boundary of the Current Landfill. In addition, one point, SGM-19, along the northern side of the Current Landfill had elevated LEL readings. These levels 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 2009, indicating that the methane accumulation and migration does not extend to this area. Should methane extend to these outpost wells on the south side of Brookhaven Avenue, active measures will 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 72 ppm. Well SGM-12A located near the south-eastern section of the landfill, had the highest hydrogen-sulfide concentration, which was above the 10 ppm exposure limit; however it was taken from a vapor point screened 2.5 - 7.5 ft below the surface and not from the ambient breathing zone. Like methane, receptors to hydrogen sulfide are considered to be in areas such as basements where

the gas can accumulate. Based upon the readings obtained from the outpost soil-gas wells along the south side of Brookhaven Avenue (GSGM-1 – GSGM-4), there is no evidence that hydrogen sulfide is migrating toward the National Weather Service building.

4.2.1.1 Trend in Soil-Gas Data

Appendix C contains the results of methane monitoring for the Current Landfill from 1996 through 2008. Generally the levels of methane and hydrogen sulfide in the wells along the northwest landfill boundary and southeast corner have remained stable.

4.2.2 Former Landfill Area

A total of 12 soil-gas monitoring well clusters are positioned around the Former Landfill Area. During 2009, the well clusters were monitored three times. The only existing operating facility within the immediate vicinity of the Former Landfill Area is Building 670, located approximately 650 feet to the southeast. This building houses the Chemical/Animal 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 three sampling events, there was no methane or hydrogen sulfide detected. Table 13 details the 2009 soil-gas monitoring results for the Former Landfill Area. Appendix A contains the field notes recorded during the sampling events.

4.2.2.1 Trends in Soil-Gas Data

The results of monitoring the Former Landfill Area continue to be consistent with the initial survey of the methane- gas migration conducted in 1995, during which concentrations between 0% to 0.1% methane were recorded. Hydrogen-sulfide gas also was measured during this survey. The hydrogen sulfide results indicate there were no detectable levels during 2009. Appendix D includes the results of monitoring methane in the Former Landfill Area for 1996 through 2008.

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

5.0 MAINTENANCE AND REPAIR

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

5.1 Landfill Cap and Gas Vents

To prevent ruts in the landfills caused by the weight of the lawn mowers during periods of above normal precipitation, the cutting of the grass is only conducted when optimal soil conditions are evident. Small cracks in the asphalt road next to the Current Landfill were noted on the inspection logs. The cracks do not impact the structural integrity of the road. Small animal burrows were noted during the biannual LTRA inspections. Also small pine seedlings were noted growing around the edge of the landfill. Maintenance is scheduled for the Spring 2010 which will include removing the seedlings and filling all remaining animal burrows.

5.2 Drainage Structures

The drainage structures at both the Current and Former Landfill areas were maintained and any obstructions removed. They were observed to be operational and structurally sound during the site inspections. From April through June 2009, vegetation was noted growing in the drainage channels of the Current Landfill and Former Landfill Area. A combination of weed whacking and herbicide was used and the vegetation was not noted in subsequent inspections.

5.3 Environmental Monitoring System

The monitoring wells and soil-gas monitoring wells associated with the landfills required no significant maintenance. During 2009, the groundwater monitoring wells were repainted to minimize the affects of weather on the steel casings. Access to the soil-gas monitoring wells was cleared via mechanical weed whacking

5.4 Related Structures

During routine inspections of both landfills it was noted that access to the landfill caps required walking on the unstable rip rap. Therefore, wooden staircases were installed in May 2009 at the northeast corners of both the Current and Former Landfills to allow safer access to the cap areas. The footings on the cap side of the stairs were secured to cement slabs placed on top of the cap.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Groundwater Monitoring

6.1.1 Conclusions for the Current Landfill

- VOCs such as benzene, and/or chloroethane continue to be detected in downgradient wells 087-11, 087-23, and 088-109 at concentrations above groundwater standards. The maximum chloroethane concentration was 26.9 µg/L in well 088-109. Benzene was detected at a maximum of 2 µg/L in well 088-11. During 2009, TVOC concentrations in these three wells ranged up to 28.7 µg/L indicating that low level VOCs continue to emanate from the landfill. However, an analysis of the trends of VOCs indicated the concentrations are stable to decreasing.

- Landfill water chemistry parameters and metals evaluated during the year suggest that leachate continues to emanate from the landfill, but at low levels.

- Tritium and Sr-90 continue to be detected in the wells downgradient of the Current Landfill, but at concentrations well below groundwater standards. These concentrations were consistent with historical observations.

- Since 1998, there have been no detections of VOCs, water chemistry parameters or radionuclides exceeding groundwater standards in wells 087-24, 088-22, and 088-23. These wells are all screened in the mid-to deep-Upper Glacial Aquifer to monitor the vertical extent of contamination from the Current Landfill.

- Although low levels of contaminants continue to be detected, the landfill controls are effective as evidenced by the improving quality of groundwater downgradient of the landfill.

6.1.2 Recommendations for the Current Landfill

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

6.1.3 Conclusions for the Former Landfill Area

- The Former Landfill Area is not a significant source of VOC contamination. No VOCs were detected above groundwater standards in 2009. VOC concentrations in the downgradient wells were at or near the minimum detectable limits.
- Landfill-leachate indicators in downgradient wells were detected at concentrations approximating those in the background monitoring wells, indicating that leachate generation is minimal to nonexistent.
- The Former Landfill Area no longer appears to be a source of Sr-90 contamination. Only trace amounts of Sr-90 were detected near the Former Landfill Area (Well 097-64). The Sr-90 detected in wells 106-43, 106-44, 106-45 and 106-64 has been decreasing with time and is currently not above groundwater standards.
- The implemented landfill controls are effective, as evidenced by the improving quality of groundwater downgradient of the landfill.

6.1.4 Recommendations for the Former Landfill Area

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

6.2 Soil-Gas Monitoring

6.2.1 Conclusions for the Current Landfill

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

6.2.2 Recommendations for the Current Landfill

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

6.2.3 Conclusions for the Former Landfill Area

Methane and hydrogen sulfide levels at the Former Landfill Area continue to show little to no landfill gas.

6.2.4 Recommendations for the Former Landfill Area

The soil-gas monitoring program is adequate at this time. No changes to the monitoring frequency are recommended.

6.3 Maintenance and Repair

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

6.3.1 Current Landfill

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

6.3.2 Former Landfill Area

Monthly inspections and maintenance will continue in accordance with the O&M requirements. 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. Access to the soil-gas monitoring wells are cleared via mechanical weed whacking.

7.0 REFERENCES

Brookhaven National Laboratory, 1999, BNL *Groundwater Monitoring Program Quality Assurance/Quality Control Project Plan*, BNL, August 1999.

Brookhaven National Laboratory, 2001a, *Groundwater Monitoring Data Quality Objectives Project, BNL*, September 2001.

Brookhaven National Laboratory, 2001b, *Current Landfill Area Five-Year Evaluation Report.* BNL Environmental Services Division, October 29,2001.

Brookhaven National Laboratory. 2009. *Environmental Monitoring Plan CY 2009 Update.* Brookhaven National Laboratory, Upton, NY. January 2009.

CDM Federal, 1995a, Final Design Specifications for the Current Landfill, Brookhaven National Laboratory, CDM Federal Programs Corporation, February 1995.

CDM Federal, 1995b, Engineering Evaluation/Cost Analysis for Groundwater: Operable Unit I, Brookhaven National Laboratory, CDM Federal Programs Corporation, September 1995.

CDM Federal, 1995c, Final Closure/Design Report for the Former Landfill Area, Brookhaven National Laboratory, CDM Federal Programs Corporation, November 1995.

CDM Federal, 1996a, Final Operations and Maintenance Manual for the Current Landfill, Brookhaven National Laboratory, CDM Federal Programs Corporation, March 1996.

CDM Federal, 1996b, Final Construction Certification Report for Current Landfill Capping, Brookhaven National Laboratory, CDM Federal Programs Corporation, May 1996.

CDM Federal, 1996c, Final Operations and Maintenance Manual for the Former Landfill Area, Brookhaven National Laboratory, CDM Federal Programs Corporation, May 1996.

CDM Federal, 1997, Environmental Monitoring Report for Current Landfill, Brookhaven National Laboratory, CDM Federal Programs Corporation January 1997.

CDM Federal, 1999, Focused Ecological Risk Assessment, Appendix L., Final Feasibility Study Report OU I, CDM Federal Programs Corporation March 31, 1999.

EM-SOP-200, Collection and Frequency of Field Quality Control Samples, Brookhaven National Laboratory, Environmental Monitoring Standard Operating Procedure

EM-SOP-203, Chemical Data Verification, Brookhaven National Laboratory Environmental Monitoring, Standard Operating Procedure.

EM-SOP-204, Radiochemical Data Verification, Brookhaven National Laboratory Environmental Monitoring, Standard Operating Procedure

6NYCRR Part 360, Solid Waste Management Facilities, New York State Department of Environmental Conservation, Division of Solid & Hazardous Waste.

PW Grosser Consulting, 1997, *Construction Certification Report for the Interim Landfill Capping,* Brookhaven National Laboratory, October 1997

PW Grosser Consulting, 2001, *Current Landfill Area Five-Year Evaluation Report*, October 29, 2001.

PW Grosser Consulting, 2002, *Former Landfill Area Five-Year Evaluation Report,* March 8, 2002.

Roy F. Weston, 1997, *Final Construction Certification Report for Former Landfill Capping,* Brookhaven National Laboratory, March 1997.

OER, 1997, *Statement of Work For Hazardous Chemical and Radiochemical Data Validation,* Brookhaven National Laboratory, April, 1997.

United States Department of Energy Order 5400.5, Radiation Protection of the Public and the Environment. Washington D.C., February 8, 1990.

Appendix A

Soil-gas Sampling Field Notes

Appendix B

Monthly Landfill Site Inspection Forms

Appendix C

Historical Soil-gas Monitoring Data

Table 1. Analytical Requirements for Groundwater Samples

Well ID	Project 1	Decision Subunit	EPA 524.2 VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sufates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Cyanide	EPA 900 Gross Alpha/Beta	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr 90	Blind Duplicate/MS/MSD	Frequency (events/year)
087-09	CLF	Background	X[f]			Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf		X[a]	X[a]	X[a]		3bf
087-11	CLF	Downgradient	X[f]			Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf		X[a]	X[a]	X[a]		3bf
087-23	CLF	Downgradient	X[f]			Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf		X[a]	X[a]	X[a]		3bf
087-24	CLF	Downgradient	X[a]			Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf		X[a]	X[a]	X[a]		3bf
087-26	CLF	Downgradient	X[f]			Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf		X[a]	X[a]	X[a]		3bf
087-27	CLF	Downgradient	X[f]			Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf		X[a]	X[a]	X[a]		3bf
088-109	CLF	Downgradient	X			Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf		X[a]	X[a]	X[a]	X	4
088-110	CLF	Downgradient	X[f]			Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf		X[a]	X[a]	X[a]		3bf
088-21	CLF	Downgradient	X[f]			Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf		X[a]	X[a]	X[a]		3bf
088-22	CLF	Downgradient	X[a]			Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf		X[a]	X[a]	X[a]		3bf
088-23	CLF	Downgradient	X[a]			Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf	Xbf		X[a]	X[a]	X[a]		3bf
086-42	FLF	Background	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X	X[a]		1a
086-72	FLF	Background	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]		1a
087-22	FLF	Background	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]		1a
097-17	FLF	Downgradient	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]		1a
097-277	FLF	Downgradient	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]		1a
097-64	FLF	Downgradient	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]		1a
106-02	FLF	Downgradient	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]		1a
106-30	FLF	Downgradient	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X[a]	X	1a
106-20	FLF	Downgradient																Xf		2f
106-21	FLF	Downgradient																Xf		2f
106-43	FLF	Downgradient																Xf		2f
106-44	FLF	Downgradient																Xf		2f
106-45	FLF	Downgradient																Xf		2f
106-64	FLF	Downgradient																Xf		2f

NOTES:

a: Collect in 4th Quarter only.

b: Collect 1st Quarter only.

Table 1. Analytical Requirements for Groundwater Samples

Well ID	Project 1	Decision Subunit	EPA 524.2 VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sufates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Cyanide	EPA 900 Gross Alpha/Beta	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr 90	Blind Duplicate/MS/MSD	Frequency (events/year)

f: Collect in 2nd and 4th Quarters.

Table 2. Current Landfill - Summary of 2009 VOC Data

Analtye	Groundwater Standards (ug/L)	087-09 6/4/2009 (ug/L)		087-09 12/1/2009 (ug/L)		087-11 6/4/2009 (ug/L)		087-11 12/1/2009 (ug/L)		087-23 6/4/2009 (ug/L)		087-23 12/1/2009 (ug/L)		087-24 12/1/2009 (ug/L)		087-26 6/4/2009 (ug/L)	
1,1,1,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	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
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
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
1,1-Dichloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.297	J	0.303	J	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
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
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
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
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
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
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
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
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
Benzene	1	0.5	U	0.5	U	**1.22**		**1.99**		**1.07**		0.971		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
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
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
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
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
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
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
Chlorobenzene	5	0.5	U	0.5	U	0.276	J	0.447	J	0.833		0.995		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
Chloroethane	5	0.5	U	0.5	U	3.39		**5.19**		4.64		**5.21**		0.5	U	0.5	U
Chloroform	7	0.5	U	0.198	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	0.145	J	0.195	J	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
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
DBCP	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
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
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
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
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
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
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
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
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
m/p 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
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
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
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
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
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
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
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
o-Chlorotoluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.321	J	0.484	J	0.5	U	0.5	U
o-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	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
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
p-Dichlorobenzene	3	0.5	U	0.5	U	0.367	J	0.469	J	0.361	J	0.483	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
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
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
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
Toluene	5	0.5	U	0.5	U	0.5	U	0.111	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
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
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
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
524.2 TVOC	--	0		0.198		5.398		8.402		7.522		8.446		0		0	

U - Not Detected
J - Estimated Value

Table 2. Current Landfill - Summary of 2009 VOC Data

Analtye	Groundwater Standards (ug/L)	087-26 12/1/2009 (ug/L)		087-27 6/4/2009 (ug/L)		087-27 12/1/2009 (ug/L)		088-109 3/12/2009 (ug/L)		088-109 6/4/2009 (ug/L)		088-109 8/26/2009 (ug/L)		088-109 12/1/2009 (ug/L)		088-110 6/4/2009 (ug/L)	
1,1,1,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	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
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
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
1,1-Dichloroethane	5	0.5	U	0.5	U	0.5	U	1.76		1.31		0.811		0.391	J	0.661	
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
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
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
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
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
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
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
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
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
Benzene	1	0.5	U	0.421	J	0.822		0.107	J	0.177	J	0.5	U	0.121	J	0.43	J
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
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
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
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
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
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
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
Chlorobenzene	5	0.5	U	0.193	J	1.49		0.5	U	0.5	U	0.5	U	0.5	U	0.104	J
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
Chloroethane	5	0.5	U	1.1		1.58		**26.1**		**26.9**		**13.2**		**9.86**		1.98	
Chloroform	7	0.5	U	0.272	J	0.5	U	0.288	J	0.27	J	0.5	U	0.257	J	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
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
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
DBCP	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
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
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
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
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
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
Ethylbenzene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.116	J
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
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
m/p 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
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
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
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
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
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
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
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
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
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
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
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
p-Dichlorobenzene	3	0.5	U	0.5	U	0.261	J	0.5	U	0.5	U	0.5	U	0.5	U	0.234	J
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
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
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
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
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
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
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
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
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
524.2 TVOC	--	0		1.986		4.153		28.255		28.657		14.011		10.629		3.525	

U - Not Detected
J - Estimated Value

Table 2. Current Landfill - Summary of 2009 VOC Data

Analtye	Groundwater Standards (ug/L)	088-110 12/1/2009 (ug/L)		088-21 6/4/2009 (ug/L)		088-21 12/1/2009 (ug/L)		088-22 12/1/2009 (ug/L)		088-23 12/1/2009 (ug/L)	
1,1,1,2-Tetrachloroethane	5	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
1,1,2,2-Tetrachloroethane	5	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
1,1-Dichloroethane	5	0.865		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
1,1-Dichloropropene	5	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
1,2,3-Trichloropropane	0.04	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
1,2-Dichloroethane	0.6	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
1,3-Dichloropropane	5	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
Benzene	1	0.536		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
Benzene, 1,3,5-trimethyl-	5	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
Bromobenzene	5	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
Bromoform	50	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
Chlorobenzene	5	0.34	J	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
Chloroethane	5	3.1		0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	7	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	5	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
Cymene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.04	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	5	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
Dichlorodifluoromethane	5	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
Ethene, 1,2-dichloro-, (E)-	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	5	0.514		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
m-Dichlorobenzene	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl bromide	5	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
Methyl tert-butyl ether	10	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
n-Butylbenzene	5	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
Naphthalene	10	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
o-Dichlorobenzene	3	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
p-Chlorotoluene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	3	0.326	J	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
Styrene	5	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
Tetrachloroethylene	5	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
trans-1,3-Dichloropropene	0.4	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
Trichlorofluoromethane	5	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
524.2 TVOC	--	5.681		0		0		0		0	

U - Not Detected
J - Estimated Value

Table 3. Current Landfill - Summary of 2009 Water Chemistry Data

Analtye	**Groundwater Standards (mg/L)**	**087-09 3/12/2009 (mg/L)**		**087-09 6/4/2009 (mg/L)**		**087-09 12/1/2009 (mg/L)**		**087-11 3/12/2009 (mg/L)**		**087-11 6/4/2009 (mg/L)**		**087-11 12/1/2009 (mg/L)**		**087-23 3/12/2009 (mg/L)**		**087-23 6/4/2009 (mg/L)**	
Alkalinity (as CaCO3)	--	19.2		22.9		17.4		86.7		131		192		32.2		115	
Ammonia (as N)	2	0.03	U	0.016	U	0.016	U	**4.2**		**3.15**		**3.1**		0.46		0.53	
Chloride	250	56.9		49.7		90.7		15.2		16.3		18.5		12.7		7.58	
Cyanide	0.2	0.002	U	0.002	U	0.002	U	0.002	U	0.0017	U	0.002	U	0.002	U	0.0017	U
Nitrate (as N)	10	0.696		0.692		0.403		0.033	U	0.033	U	0.033	U	0.033	U	0.033	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	0.033	U
Nitrite + Nitrate-N	10	0.83		0.152		0.386		0.01	U	0.0323	J	0.081	J	0.01	U	0.0326	J
Nitrogen	--	0.909		0.348		0.401		4.12		2.63		3.66		0.615		1.22	
Sulfate	250	17.6		12		10.9		2.15	J	3.92	J	2.4	J	10.3		5.54	
TDS	--	161		156		194		153		173		194		81		144	
Total Kjeldahl Nitrogen	--	0.079	J	0.196		0.033	U	4.11		2.6		3.57		0.615		1.19	
TSS	--	7.05		10.4		8		25		18.3		70.8		5.9		14.7	

U - Not Detected
J - Estimated Value

Table 3. Current Landfill - Summary of 2009 Water Chemistry Data

Analtye	**Groundwater Standards (mg/L)**	**087-23 12/1/2009 (mg/L)**		**087-24 6/4/2009 (mg/L)**		**087-24 12/1/2009 (mg/L)**		**087-26 3/12/2009 (mg/L)**		**087-26 6/4/2009 (mg/L)**		**087-26 12/1/2009 (mg/L)**		**087-27 3/12/2009 (mg/L)**		**087-27 6/4/2009 (mg/L)**	
Alkalinity (as CaCO3)	--	114		16.6		18.4		17.7		17.1		17.4		145		112	
Ammonia (as N)	2	0.322		0.016	U	0.016	U	0.03	U	0.016	U	0.016	U	**3.7**		**2.41**	
Chloride	250	9.22		17.9		18.1		15.7		17.2		19		23.7		26.3	
Cyanide	0.2	0.002	U	0.002	U	0.002	U	0.0015	U	0.0017	U	0.002	U	0.0015	U	0.0017	U
Nitrate (as N)	10	0.033	U	0.472		0.492		0.438		0.453		0.508		0.033	U	0.033	U
Nitrite (as N)	1	0.033	U	0.033	U	0.033	U	0.0365	J	0.0531	J	0.033	U	0.0349	J	0.033	U
Nitrite + Nitrate-N	10	0.08	J	0.478		0.487		0.475		0.456		0.496		0.01	U	0.0346	J
Nitrogen	--	0.548		0.478		0.622		0.475		0.456		0.641		3.26		3.14	
Sulfate	250	6.55		12.4		12.5		11.9		12.2		12.3		6.53		12.3	
TDS	--	141		73		74		76		78		73		222		180	
Total Kjeldahl Nitrogen	--	0.468		0.033	U	0.135		0.029	U	0.033	U	0.145		3.26		3.1	
TSS	--	8.6		0.69	J	1.14	U	0.57	U	3.45		1.14	U	27.6		17.1	

U - Not Detected
J - Estimated Value

Table 3. Current Landfill - Summary of 2009 Water Chemistry Data

Analtye	**Groundwater Standards (mg/L)**	**087-27 12/1/2009 (mg/L)**		**088-109 3/12/2009 (mg/L)**		**088-109 6/4/2009 (mg/L)**		**088-109 12/1/2009 (mg/L)**		**088-110 3/12/2009 (mg/L)**		**088-110 6/4/2009 (mg/L)**		**088-110 12/1/2009 (mg/L)**		**088-21 3/12/2009 (mg/L)**	
Alkalinity (as CaCO3)	--	163		52.4		36.4		78.9		105		124		133		16.6	
Ammonia (as N)	2	1.5		1.59		0.836		0.891		**3**		**7.03**		**2.11**		0.03	U
Chloride	250	26.2		12.6		10.9		13.9		30.8		26.4		35.4		**270**	
Cyanide	0.2	0.002	U	0.0015	U	0.002	U	0.002	U	0.0015	U	0.0017	U	0.0017	U	0.002	U
Nitrate (as N)	10	0.033	U	0.0754	J	0.033	U	0.033	JU	0.033	U	0.033	U	0.033	JU	0.291	
Nitrite (as N)	1	0.033	U	0.033	U	0.033	U	0.033	JU	0.0372	J	0.0528	J	0.033	JU	0.033	U
Nitrite + Nitrate-N	10	0.073	J	0.05	U	0.05	U	0.065	J	0.01	U	0.0345	J	0.0745	J	0.295	
Nitrogen	--	1.87		1.61		1.02		1.23		2.86		6.28		2.49		0.442	
Sulfate	250	14.2		14.2		17.7		12.7		13.5		14.8		20.2		2.99	J
TDS	--	211		106		82		136		220		241		222		565	
Total Kjeldahl Nitrogen	--	1.8		1.59		0.996		1.17		2.86		6.25		2.41		0.147	
TSS	--	17.2		1.8	J	0.875	J	3	J	42.2		27.8		12		6	

U - Not Detected
J - Estimated Value

Table 3. Current Landfill - Summary of 2009 Water Chemistry Data

Analtye	**Groundwater Standards (mg/L)**	**088-21 6/4/2009 (mg/L)**		**088-21 12/1/2009 (mg/L)**		**088-22 6/4/2009 (mg/L)**		**088-22 12/1/2009 (mg/L)**		**088-23 6/4/2009 (mg/L)**		**088-23 12/1/2009 (mg/L)**	
Alkalinity (as CaCO3)	--	14.5		23.8		14.5		15.4		27		22.3	
Ammonia (as N)	2	0.048	J	0.021	J	0.016	U	0.016	U	0.04	U	0.016	J
Chloride	250	162		72.7		17.3		17.1		16		16.1	
Cyanide	0.2	0.002	U	0.002	U	0.0017	U	0.002	U	0.0017	U	0.0017	U
Nitrate (as N)	10	0.162		0.281	J	0.465		0.486	J	0.033	U	0.033	JU
Nitrite (as N)	1	0.033	U	0.033	JU	0.0538	J	0.033	JU	0.0549	J	0.033	JU
Nitrite + Nitrate-N	10	0.116		0.257		0.432		0.495		0.0113	J	0.0525	J
Nitrogen	--	0.122		0.269		0.432		0.496		0.033	U	0.204	J
Sulfate	250	3.39	J	4.05	J	11.4		11.5		11.2		10.8	
TDS	--	351		172		69		62		84		67	
Total Kjeldahl Nitrogen	--	0.033	U	0.033	U	0.033	U	0.033	U	0.033	U	0.151	
TSS	--	6.99		1.14	U	10.1		2.4	J	3.41		9.6	

U - Not Detected
J - Estimated Value

Table 4. Current Landfill - Summary of 2009 Metals Data

Analtye	Groundwater Standards (ug/L)	087-09 3/12/2009 (ug/L)		087-09 6/4/2009 (ug/L)		087-09 12/1/2009 (ug/L)		087-11 3/12/2009 (ug/L)		087-11 6/4/2009 (ug/L)		087-11 12/1/2009 (ug/L)		087-23 3/12/2009 (ug/L)		087-23 6/4/2009 (ug/L)		087-23 12/1/2009 (ug/L)		087-24 6/4/2009 (ug/L)	
Aluminum	200	**941**		**336**		**240**		164	B	76.4	B	69.4	B	68	U	68	U	68	U	68	U
Antimony	3	**3.4**	B	**7.96**	B	3	U	**3.4**	B	**7.19**	B	3	U	3	U	3	U	3	U	3	U
Arsenic	10	1.5	U	4.24	B	2.32	B	5.4		5.46		6.26		9.7		**11.9**		**11.8**		1.5	U
Barium	1000	45.9	B	41.5	B	49.6	B	35.3	B	23.7	B	35.5	B	23.1	B	30.4	B	33.2	B	9.98	B
Beryllium	3	1	U	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	1	U
Calcium	--	10700		9840		8780		18000		15200		19700		4080	B	4940	B	6710		5590	
Chromium	50	**794**		**607**		**515**		2	U	2	U	2.18	B	2	U	2	U	2.99	B	2	U
Cobalt	--	2.9	B	3.13	B	3.42	B	1	U	1	U	1	U	2	B	3.12	B	2.9	B	1	U
Copper	200	13.4	B	13.2	B	11.5	B	3	U	3	U	3	U	3	U	3	U	3	U	3	U
Iron	300	**3860**		**3440**		**2100**		**59100**		**53500**		**65000**		**32900**		**61400**		**55800**		25	U
Lead	15*	0.78	B	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Magnesium	35000	4420	B	4180	B	4200	B	4100	B	3200	B	4750	B	1450	B	1430	B	1890	B	3650	B
Manganese	300	84.6		146		75.2		**1120**		**943**		**1250**		**3940**		**6120**		**6650**		2	U
Mercury	0.7	0.067	U	0.067	U	0.066	U	0.067	U	0.067	U	0.066	U	0.067	U	0.067	U	0.066	U	0.067	U
Nickel	100	**413**		**405**		**454**		1	U	1	U	1.5	U	1	U	1	U	1.5	U	1	U
Potassium	--	1430	B	1870	B	1280	B	5780		3640	B	5670		1000	B	1150	B	1140	B	1130	B
Selenium	10	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Silver	50	1	U	1	U	1	U	1	U	1.46	B	1.27	B	1	U	3	B	2.53	B	1	U
Sodium	20000	**43900**		**32800**		**52900**		10700		8750		12700		9360		5190		6730		11100	
Thallium	0.5	**0.58**	B	**0.531**	B	**0.761**	B	0.3	U	0.3	U	0.305	B	0.3	U	0.3	U	0.3	U	0.3	U
Vanadium	--	3.8	B	2.57	B	2.1	B	1.1	B	1	U	1	U	1	U	1	U	1	U	1	U
Zinc	2000	6.4	B	5.54	B	3.3	U	7.3	B	4.2	B	3.3	U	9.6	B	6.58	B	5.52	B	2	U

U - Not Detected
B - Value between contract reporting limit and instrument detection limit.
* Listed value is the Selected Cleanup Goal stated in the ROD.

Table 4. Current Landfill - Summary of 2009 Metals Data

Analtye	Groundwater Standards (ug/L)	087-24 12/1/2009 (ug/L)		087-26 3/12/2009 (ug/L)		087-26 6/4/2009 (ug/L)		087-26 12/1/2009 (ug/L)		087-27 3/12/2009 (ug/L)		087-27 6/4/2009 (ug/L)		087-27 12/1/2009 (ug/L)		088-109 3/12/2009 (ug/L)		088-109 6/4/2009 (ug/L)		088-109 12/1/2009 (ug/L)		088-110 3/12/2009 (ug/L)		088-110 6/4/2009 (ug/L)		088-110 12/1/2009 (ug/L)		088-21 3/12/2009 (ug/L)	
Aluminum	200	68	U	68	U	68	U	68	U	189	B	68	U	138	B	68	U	68	U	68	U	68	U	68	U	68	U	181	B
Antimony	3	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	**4.1**	B
Arsenic	10	1.6	U	1.5	U	2.41	B	1.88	B	**10.5**		5.55		9.68		1.5	U	1.5	U	2.33	B	**23.2**		**15**		**11.3**		1.5	U
Barium	1000	10.7	B	21.9	B	22.1	B	22.5	B	57.8	B	41.6	B	41.8	B	38.4	B	24	B	35.4	B	54.4	B	37.7	B	39.9	B	64.6	B
Beryllium	3	1	U	1	U	1	U	1	U	1	U	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	1	U	1	U	1	U	1	U	1	U
Calcium	--	5920		5650		5540		5920		39700		26700		24800		19500		13600		17700		25900		19200		18800		22700	
Chromium	50	1	U	2	U	2	U	1	U	2	U	2	U	1.28	B	2	U	2	U	1	U	2	U	2	U	1.19	B	2	U
Cobalt	--	1.38	B	1.5	B	1.15	B	1.37	B	3.6	B	2.85	B	3.3	B	1	U	1	U	1	U	5.9	B	4.36	B	4.6	B	1	U
Copper	200	3	U	4.2	B	3.94	B	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U
Iron	300	30	U	126		**2810**		185		**63700**		**29000**		**45800**		**2160**		**800**		**7040**		**68900**		**55200**		**49400**		**3880**	
Lead	15*	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	0.5	U	0.5	U	0.5	U	0.5	U
Magnesium	35000	4080	B	3760	B	3720	B	4010	B	9120		6550		5670		5780		5030		4710	B	7050		5140		5530		10400	
Manganese	300	2	U	2	U	10.7	B	2.11	B	**3100**		**1180**		**1800**		**563**		181		**411**		**3300**		**2680**		**2230**		143	
Mercury	0.7	0.066	U	0.067	U	0.067	U	0.066	U	0.067	U	0.067	U	0.066	U	0.067	U	0.067	U	0.066	U	0.067	U	0.067	U	0.066	U	0.067	U
Nickel	100	1.5	U	1	U	1	U	1.5	U	1.5	B	1	U	1.5	U	1	U	1	U	1.5	U	1	U	1	U	1.5	U	1	B
Potassium	--	1200	B	1020	B	1090	B	1050	B	7140		4920	B	4850	B	3570	B	1670	B	3530	B	5010		3800	B	4340	B	3140	B
Selenium	10	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Silver	50	1	U	1	U	1	U	1	U	1	U	1	U	1.16	B	1	U	1	U	1	U	1	U	1.64	B	1.98	B	1	U
Sodium	20000	13100		12800		11800		12700		19700		13500		19300		8580		7350		8360		**25400**		19400		**25400**		**181000**	
Thallium	0.5	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Vanadium	--	1	U	1	U	1.72	B	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	8.4	B
Zinc	2000	3.3	U	4.5	B	3.36	B	3.3	U	12.7	B	5.08	B	3.3	U	5.9	B	2.54	B	3.3	U	6.5	B	3.61	B	3.3	U	6.3	B

U - Not Detected
B - Value between contract reporting limit and instrument detection limit.
* Listed value is the Selected Cleanup Goal stated in the ROD.

Table 4. Current Landfill - Summary of 2009 Metals Data

Analtye	**Groundwater Standards (ug/L)**	**088-21 6/4/2009 (ug/L)**		**088-21 12/1/2009 (ug/L)**		**088-22 6/4/2009 (ug/L)**		**088-22 12/1/2009 (ug/L)**		**088-23 6/4/2009 (ug/L)**		**088-23 12/1/2009 (ug/L)**	
Aluminum	200	144	B	68	U	68	U	68	U	68	U	68	U
Antimony	3	3	U	3	U	3	U	3	U	3	U	3	U
Arsenic	10	1.7	B	1.6	U	4.29	B	2.38	B	3.25	B	3.23	B
Barium	1000	43.5	B	30.4	B	31	B	23.6	B	3.49	B	3.6	B
Beryllium	3	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
Calcium	--	12800		6610		6740		6810		8850		6020	
Chromium	50	2	U	1	U	2	U	1	U	2	U	1.12	B
Cobalt	--	1	U	1	U	4.5	B	2.76	B	1	U	1	U
Copper	200	3	U	3	U	3	U	3	U	3	U	3	U
Iron	300	**2940**		68.3	B	**5800**		**741**		**1870**		**2360**	
Lead	15*	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Magnesium	35000	6070		3430	B	2160	B	2160	B	2140	B	1770	B
Manganese	300	120		35.5		**835**		92.2		**1750**		**2170**	
Mercury	0.7	0.067	U	0.066	U	0.067	U	0.066	U	0.067	U	0.066	U
Nickel	100	1	U	1.5	U	1	U	1.5	U	1	U	1.5	U
Potassium	--	2870	B	2220	B	1040	B	1000	B	722	B	751	B
Selenium	10	1	U	1	U	1	U	1	U	1	U	1	U
Silver	50	1	U	1	U	1	U	1	U	1	U	1	U
Sodium	20000	**83400**		**51100**		12100		12600		12700		13900	
Thallium	0.5	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Vanadium	--	5.65	B	1	U	1	U	1	U	1	U	1	U
Zinc	2000	4.88	B	3.3	U	2	U	3.3	U	3.39	B	3.3	U

U - Not Detected
B - Value between contract reporting limit and instrument detection limit.
* Listed value is the Selected Cleanup Goal stated in the ROD.

Table 5. Current Landfill - Summary of 2009 Radionuclide Data

Analtye	**Groundwater Standards pCi/L**	**087-09 12/1/2009 pCi/L**				**087-11 12/1/2009 pCi/L**				**087-23 12/1/2009 pCi/L**			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	6.89	U	14.6	9.6	8.56	U	15.9	9.82	2.42	U	7.66	5
Beryllium-7	40000	6.06	U	18.3	10.9	1.35	U	16.1	9.56	3.91	U	13.8	7.91
Cesium-134	80	-0.463	U	2.33	1.42	-0.406	U	2.14	1.37	0.367	U	2.02	1.21
Cesium-137	120	-0.281	U	2.14	1.28	0.252	U	1.88	2.54	0.614	U	1.89	1.1
Co-60	200	-0.322	U	2.43	1.62	0.792	U	2.24	1.25	1.97	J-UI	1.96	1.03
Cobalt-57	4000	0.503	U	2.02	1.23	0.176	U	1.65	0.976	-0.531	U	1.34	0.789
Europium-152	841	3.26	U	6.98	4.07	-0.835	U	5.32	3.27	0.643	U	4.88	2.97
Europium-154	573	0.958	U	6.26	3.59	-2.4	U	5.39	3.37	-0.462	U	4.34	2.65
Europium-155	4000	-5.35	U	8.63	5.45	-3.4	U	7.11	4.31	-0.615	U	5.95	3.42
Manganese-54	2000	-2.29	U	1.76	1.61	0.103	U	1.72	1.01	-0.77	U	1.53	0.937
Sodium-22	400	0.321	U	2.23	1.28	-0.369	U	1.95	1.17	-0.165	U	1.55	0.946
Strontium-90	8	1.28		0.442	0.395	0.449	U	0.467	0.289	0.131	U	0.51	0.296
Tritium	20000	23.7	U	221	127	622		222	155	273	J	221	139
Zinc-65	360	-8.16	U	4.18	3.19	1.06	U	3.92	2.61	1.89	U	3.33	2.06

J - Estimated Value.
U - Not detected.
I - Interference detected.

Table 5. Current Landfill - Summary of 2009 Radionuclide Data

Analtye	**Groundwater Standards pCi/L**	**087-24 12/1/2009 pCi/L**				**087-26 12/1/2009 pCi/L**				**087-27 12/1/2009 pCi/L**			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	-1.16	U	3.89	3.36	1.18	U	3.35	2.18	2.3	U	11.8	7.45
Beryllium-7	40000	-0.571	U	17.2	10.2	-8.83	U	15.7	9.92	-6.69	U	15	9.39
Cesium-134	80	0.911	U	2.77	1.55	1.02	U	2.48	1.41	0.259	U	2.02	1.19
Cesium-137	120	1.63	U	2.49	1.41	-1.37	U	3.29	2.42	0.505	U	1.88	1.08
Co-60	200	0.755	U	2.73	1.6	-0.529	U	2.1	1.3	1.25	U	1.79	0.984
Cobalt-57	4000	-0.352	U	1.35	0.803	0.298	U	1.33	0.76	-0.0236	U	1.54	0.915
Europium-152	841	-2.13	U	5.4	3.22	0.46	U	5.35	3.11	2.05	U	5.24	3.04
Europium-154	573	-1.8	U	5.64	3.61	1.66	U	6.38	3.67	-1.34	U	4.91	3.01
Europium-155	4000	1.2	U	5.59	3.21	1.24	U	5.49	3.12	-1.99	U	6.56	3.91
Manganese-54	2000	-0.902	U	2.22	1.35	-0.433	U	1.84	1.13	0.0713	U	1.69	1.01
Sodium-22	400	-0.652	U	2.01	1.29	0.601	U	2.28	1.31	-0.485	U	1.75	1.07
Strontium-90	8	0.0102	U	0.437	0.248	-0.197	U	0.357	0.184	0.482	U	0.787	0.473
Tritium	20000	318		222	141	272	J	221	139	359		222	143
Zinc-65	360	-4.36	U	5.15	4.01	1.15	U	4.52	2.96	1.62	U	3.69	2.38

J - Estimated Value.
U - Not detected.
I - Interference detected.

Table 5. Current Landfill - Summary of 2009 Radionuclide Data

Analtye	**Groundwater Standards pCi/L**	**088-109 12/1/2009 pCi/L**				**088-110 12/1/2009 pCi/L**				**088-21 12/1/2009 pCi/L**			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	0.364	U	11	6.56	0.235	U	2.83	1.87	-1.17	U	6.31	3.76
Beryllium-7	40000	3.74	U	15.7	9.41	-1.1	U	14.7	8.88	1.51	U	15	9.08
Cesium-134	80	1.24	U	1.88	1.05	0.213	U	2.13	1.25	0.817	U	1.95	1.12
Cesium-137	120	0.618	U	1.79	1.03	-1.78	U	2.82	2.29	0.0468	U	1.7	0.998
Co-60	200	-0.378	U	1.69	1.02	0.341	U	1.98	1.16	-0.505	U	1.65	1.02
Cobalt-57	4000	-0.212	U	1.49	0.92	0.562	U	1.15	0.652	-0.1	U	1.4	0.852
Europium-152	841	-3.07	U	4.74	2.96	-2.29	U	4.39	2.65	-0.502	U	4.76	2.86
Europium-154	573	0.741	U	4.89	2.82	0.0315	U	4.7	2.79	1.12	U	4.87	2.81
Europium-155	4000	2.37	U	6.57	3.96	0.206	U	4.39	2.52	-0.992	U	5.52	3.36
Manganese-54	2000	0.573	U	1.72	0.994	-0.617	U	1.69	1.04	-0.155	U	1.56	0.945
Sodium-22	400	-0.294	U	1.74	1.04	-0.324	U	1.67	1.02	0.255	U	1.74	1.02
Strontium-90	8	0.0413	U	0.524	0.304	0.299	U	0.446	0.27	3.45		0.472	0.581
Tritium	20000	-8.64	U	222	126	106	U	221	131	-17.2	U	221	125
Zinc-65	360	1.34	U	3.62	2.43	-3.1	U	3.52	2.27	-1.11	U	3.3	2.34

J - Estimated Value.
U - Not detected.
I - Interference detected.

Table 5. Current Landfill - Summary of 2009 Radionuclide Data

Analtye	**Groundwater Standards pCi/L**	**088-22 12/1/2009 pCi/L**				**088-23 12/1/2009 pCi/L**			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	1.95	U	10.3	6.87	-0.0397	U	6.4	4.27
Beryllium-7	40000	-6.31	U	14.6	9.23	1.32	U	12.8	7.42
Cesium-134	80	0.24	U	2	1.18	-0.43	U	1.57	0.99
Cesium-137	120	0.414	U	1.68	0.965	0.366	U	1.48	0.869
Co-60	200	0.0944	U	1.65	0.967	-0.213	U	1.54	1.1
Cobalt-57	4000	0.419	U	1.48	0.898	0.283	U	1.18	0.672
Europium-152	841	-0.0627	U	4.9	2.94	0.0909	U	4.01	2.46
Europium-154	573	1.69	U	5.11	2.89	0.694	U	4.07	2.4
Europium-155	4000	-3	U	6.11	3.82	0.79	U	4.98	2.83
Manganese-54	2000	-0.0424	U	1.6	0.955	0.133	U	1.35	0.778
Sodium-22	400	0.757	U	1.83	1.03	0.242	U	1.46	0.857
Strontium-90	8	0.163	U	0.414	0.243	-0.325	U	0.576	0.318
Tritium	20000	511		222	150	461		220	147
Zinc-65	360	0.58	U	3.37	2.32	-0.195	U	2.79	1.94

J - Estimated Value.
U - Not detected.
I - Interference detected.

Table 6. Former Landfill - Summary of 2008 VOC Data

Analtye	Groundwater Standards (ug/L)	086-42 12/3/2009 (ug/L)		086-72 12/3/2009 (ug/L)		087-22 12/3/2009 (ug/L)		097-17 12/3/2009 (ug/L)		097-277 12/3/2009 (ug/L)		097-64 12/3/2009 (ug/L)		106-02 12/3/2009 (ug/L)		106-30 12/3/2009 (ug/L)	
1,1,1,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.29	J	0.5	U	1.89	
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	0.619	
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
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	1.88	
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
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
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
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
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
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
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
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
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
Benzene	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
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
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
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
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
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
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
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
Chlorobenzene	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
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
Chloroethane	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
Chloroform	7	0.5	U	2.09		0.535		0.936		0.537		0.5	U	0.123	J	0.265	J
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
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
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
DBCP	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
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
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
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
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
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
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
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
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
m/p 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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
Trichloroethylene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.195	J	0.5	U	0.575	
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
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
524.2 TVOC	--	0		2.09		0.535		0.936		0.537		0.485		0.123		5.229	

J - Estimated value.
U - Not detected.

Table 7. Former landfill - Summary of 2009 Water Chemistry Data

Analtye	**Groundwater Standards (mg/L)**	**086-42 12/3/2009 (mg/L)**		**086-72 12/3/2009 (mg/L)**		**087-22 12/3/2009 (mg/L)**		**097-17 12/3/2009 (mg/L)**		**097-277 12/3/2009 (mg/L)**		**097-64 12/3/2009 (mg/L)**		**106-02 12/3/2009 (mg/L)**		**106-30 12/3/2009 (mg/L)**	
Alkalinity (as CaCO3)	--	33.2		5.46		5.46		9.43		4.96		21.8		14.9		15.4	
Ammonia (as N)	2	0.016	U	0.016	U	0.016	U	0.016	U	0.016	U	0.157		0.016	U	0.016	U
Chloride	250	38.4		8.3		6.28		8.35		12.8		4.77		4.6		6.71	
Cyanide	0.2	0.002	U	0.002	U	0.002	U	0.002	U	**0.005**	J	**0.004**	J	0.002	U	0.002	U
Nitrate (as N)	10	1.16		0.23		0.572		0.209		0.3		1.02		0.558		1.25	
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	0.033	U
Nitrite + Nitrate-N	10	1.13		0.164	J	0.57		0.18	J	0.26		1.02		0.535		1.25	
Nitrogen	--	1.13		0.253		0.621		0.241	J	0.347		1.18		0.698		1.32	
Sulfate	250	23.7		9.57		8.6		5.67		14		11.7		10.4		9.93	
TDS	--	146		33		32		28		59		55		36		57	
Total Kjeldahl Nitrogen	--	0.033	U	0.089	J	0.051	J	0.061	J	0.087	J	0.159		0.163		0.068	J
TSS	--	1.14	U	0.62	U	0.606	U	0.606	U	0.597	U	0.745	J	10.4		0.57	U

J - Estimated value.
U - Not detected.

Table 8. Former landfill - Summary of Metals Data

Analtye	**Groundwater Standards (ug/L)**	**086-42 12/3/2009 (ug/L)**		**086-72 12/3/2009 (ug/L)**		**087-22 12/3/2009 (ug/L)**		**097-17 12/3/2009 (ug/L)**		**097-277 12/3/2009 (ug/L)**		**097-64 12/3/2009 (ug/L)**		**106-02 12/3/2009 (ug/L)**		**106-30 12/3/2009 (ug/L)**	
Aluminum	200	68	U	68	U	68	U	68	U	68	U	68	U	185	B	103	B
Antimony	3	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U
Arsenic	10	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U
Barium	1000	23.4	B	13.7	B	16.2	B	10.9	B	11.1	B	17.5	B	9.23	B	13.5	B
Beryllium	3	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
Calcium	--	12500		2440	B	3180	B	4160	B	4140	B	9370		7360		9060	
Chromium	50	1	U	1	U	1	U	1	U	1	U	1	U	1.8	B	1	U
Cobalt	--	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Copper	200	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U
Iron	300	30	U	30	U	30	U	30	U	30	U	30	U	**956**		38.7	B
Lead	15*	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.761	B	0.5	U
Magnesium	35000	4100	B	1980	B	2170	B	1890	B	2280	B	1710	B	1530	B	2340	B
Manganese	300	2	U	4.23	B	2.88	B	13.6	B	13.8	B	5.89	B	11.6	B	11.8	B
Mercury	0.7	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	U	0.066	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
Potassium	--	1960	B	785	B	1200	B	803	B	1170	B	1450	B	1130	B	1170	B
Selenium	10	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Silver	50	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sodium	20000	**32700**		5900		3570	B	4490	B	9760		4500	B	4120	B	4120	B
Thallium	0.5	**0.611**	B	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Vanadium	--	1	U	1	U	1	U	1	U	1	U	1	U	1.04	B	1	U
Zinc	2000	3.3	U	3.3	U	3.3	U	3.3	U	3.3	U	3.3	U	3.32	B	3.3	U

U - Not Detected
B - Value between contract reporting limit and instrument detection limit.
* Listed value is the Selected Cleanup Goal stated in the ROD.

Table 9. Former Landfill - Summary of 2009 Pesticide/PCB Data

Analtye	Groundwater Standards (ug/L)	086-42 12/3/2009 (ug/L)		086-72 12/3/2009 (ug/L)		087-22 12/3/2009 (ug/L)		097-17 12/3/2009 (ug/L)		097-277 12/3/2009 (ug/L)		097-64 12/3/2009 (ug/L)		106-02 12/3/2009 (ug/L)		106-30 12/3/2009 (ug/L)	
4,4''-DDD	0.3	0.061	U	0.061	U	0.0604	U	0.0604	U	0.0627	U	0.0615	U	0.0604	U	0.0615	U
4,4''-DDE	0.2	0.061	U	0.061	U	0.0604	U	0.0604	U	0.0627	U	0.0615	U	0.0604	U	0.0615	U
4,4''-DDT	0.2	0.061	U	0.061	U	0.0604	U	0.0604	U	0.0627	U	0.0615	U	0.0604	U	0.0615	U
Aldrin	0	0.0305	U	0.0305	U	0.0302	U	0.0302	U	0.0314	U	0.0308	U	0.0302	U	0.0308	U
alpha-BHC	0.01	0.0305	U	0.0305	U	0.0302	U	0.0302	U	0.0314	U	0.0308	U	0.0302	U	0.0308	U
Aroclor 1016	0.09	0.762	U	0.762	U	0.755	U	0.755	U	0.784	U	0.769	U	0.755	U	0.769	U
Aroclor 1221	0.09	0.762	U	0.762	U	0.755	U	0.755	U	0.784	U	0.769	U	0.755	U	0.769	U
Aroclor 1232	0.09	0.762	U	0.762	U	0.755	U	0.755	U	0.784	U	0.769	U	0.755	U	0.769	U
Aroclor 1242	0.09	0.762	U	0.762	U	0.755	U	0.755	U	0.784	U	0.769	U	0.755	U	0.769	U
Aroclor 1248	0.09	0.762	U	0.762	U	0.755	U	0.755	U	0.784	U	0.769	U	0.755	U	0.769	U
Aroclor 1254	0.09	0.762	U	0.762	U	0.755	U	0.755	U	0.784	U	0.769	U	0.755	U	0.769	U
Aroclor 1260	0.09	0.762	U	0.762	U	0.755	U	0.755	U	0.784	U	0.769	U	0.755	U	0.769	U
beta-BHC	0.01	0.0305	U	0.0305	U	0.0302	U	0.0302	U	0.0314	U	0.0308	U	0.0302	U	0.0308	U
Chlordane	0.05	0.381	U	0.381	U	0.377	U	0.377	U	0.392	U	0.385	U	0.377	U	0.385	U
delta-BHC	0.04	0.0305	U	0.0305	U	0.0302	U	0.0302	U	0.0314	U	0.0308	U	0.0302	U	0.0308	U
Dieldrin	0.004	0.061	U	0.061	U	0.0604	U	0.0604	U	0.0627	U	0.0615	U	0.0604	U	0.0615	U
Endosulfan I	0.009	0.0305	U	0.0305	U	0.0302	U	0.0302	U	0.0314	U	0.0308	U	0.0302	U	0.0308	U
Endosulfan II	--	0.061	U	0.061	U	0.0604	U	0.0604	U	0.0627	U	0.0615	U	0.0604	U	0.0615	U
Endosulfan sulfate	--	0.061	U	0.061	U	0.0604	U	0.0604	U	0.0627	U	0.0615	U	0.0604	U	0.0615	U
Endrin	0	0.061	U	0.061	U	0.0604	U	0.0604	U	0.0627	U	0.0615	U	0.0604	U	0.0615	U
Endrin aldehyde	5	0.061	U	0.061	U	0.0604	U	0.0604	U	0.0627	U	0.0615	U	0.0604	U	0.0615	U
Heptachlor	0.04	0.0305	U	0.0305	U	0.0302	U	0.0302	U	0.0314	U	0.0308	U	0.0302	U	0.0308	U
Heptachlor epoxide	0.03	0.0305	U	0.0305	U	0.0302	U	0.0302	U	0.0314	U	0.0308	U	0.0302	U	0.0308	U
Lindane	0.05	0.0305	U	0.0305	U	0.0302	U	0.0302	U	0.0314	U	0.0308	U	0.0302	U	0.0308	U
Toxaphene	0.06	0.762	U	0.762	U	0.755	U	0.755	U	0.784	U	0.769	U	0.755	U	0.769	U

U - Not detected.

Table 10. Former Landfill - Summary of 2009 Radionuclide Data

Analtye	**Groundwater Standards** pCi/L	**086-42 12/3/2009 pCi/L**				**086-72 12/3/2009 pCi/L**				**087-22 12/3/2009 pCi/L**			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	-3.42	U	7.48	5.15	3.74	U	13.1	7.74	7.82	U	13.7	8.43
Beryllium-7	40000	3.21	U	16.6	9.55	7.61	U	20.5	12.1	-4.69	U	20.1	12.4
Cesium-134	80	-0.882	U	2.05	1.32	0.774	U	2.44	1.4	-0.238	U	2.42	1.46
Cesium-137	120	-0.378	U	1.66	1.02	1.23	U	2.12	1.18	0.076	U	2.14	1.25
Co-60	200	0.265	U	1.56	0.913	0.165	U	2.16	1.26	1.58	U	2.32	1.27
Cobalt-57	4000	-0.0669	U	1.44	0.832	-0.0992	U	1.8	1.11	-0.659	U	1.85	1.12
Europium-152	841	2.73	U	4.97	2.94	1.83	U	5.72	3.35	0.664	U	6.18	6.32
Europium-154	573	-2.99	U	4.18	2.83	-2.28	U	5.03	3.17	-1.93	U	5.1	3.21
Europium-155	4000	-0.0326	U	5.73	3.28	1.85	U	7.47	4.51	1.39	U	7.97	4.66
Gross Alpha	15	0.771	U	1.75	1.04	-0.322	U	1.21	0.354	-0.134	U	1.32	0.365
Gross Beta	50*	2.53	J	1.95	1.29	0.1	U	2.14	1.19	1.1	U	1.58	0.988
Manganese-54	2000	-0.0361	U	1.59	0.922	0.552	U	1.94	1.12	-0.209	U	2.02	1.23
Sodium-22	400	-1.06	U	1.51	1.01	-0.719	U	1.82	1.13	-0.728	U	1.82	1.15
Strontium-90	8	-0.0825	U	0.552	0.272	0.0451	U	0.538	0.281	0.00354	U	0.511	0.26
Tritium	20000	64.7	U	211	124	38.1	U	212	123	34.3	U	211	122
Zinc-65	360	-1.08	U	3.63	2.24	1.63	U	4.22	2.79	-3.5	U	4.14	2.68

J - Estimated value.
U - Not detected.
* Listed value is the Selected Cleanup Goal stated in the ROD.

Table 10. Former Landfill - Summary of 2009 Radionuclide Data

Analtye	**Groundwater Standards** pCi/L	**097-17 12/3/2009 pCi/L**				**097-277 12/3/2009 pCi/L**				**097-64 12/3/2009 pCi/L**				**106-02 12/3/2009 pCi/L**			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2	3.36	U	9.82	6.51	4.14	U	6.89	4.44	-1.84	U	18	11.8	1.74	U	7.3	4.79
Beryllium-7	40000	0.397	U	18.2	10.7	-2	U	15.1	9.22	0.00962	U	19.3	11.7	-3.36	U	15.8	9.44
Cesium-134	80	-1.22	U	2	1.29	0.289	U	1.98	1.15	-1.34	U	2.17	1.38	0.489	U	2	1.18
Cesium-137	120	-0.691	U	1.96	1.55	0.4	U	1.75	0.996	0.755	U	1.99	1.12	0.233	U	1.73	1.02
Co-60	200	-0.859	U	2.12	1.84	1.08	U	1.81	1.01	-0.262	U	1.87	1.13	-0.262	U	1.67	1.03
Cobalt-57	4000	-0.262	U	1.62	0.978	-0.612	U	1.36	0.851	0.171	U	1.78	1.07	1.14	U	1.49	0.834
Europium-152	841	-0.829	U	5.46	3.71	1.48	U	4.63	2.77	4.37	U	5.98	3.38	0.204	U	4.83	2.96
Europium-154	573	2.08	U	5.8	3.28	-1.03	U	4.45	2.8	0.57	U	5.46	3.16	0.832	U	4.83	2.83
Europium-155	4000	-0.695	U	6.77	4.08	2.29	U	5.78	3.43	-0.97	U	7.61	4.59	0.15	U	5.7	3.25
Gross Alpha	15	0.186	U	1.67	0.755	0.135	U	1.78	0.78	-0.544	U	2.19	0.755	0.0183	U	2.3	1.03
Gross Beta	50*	0.199	U	1.66	0.882	0.987	U	2.69	1.56	4.43		2.23	1.68	1.35	U	1.79	1.14
Manganese-54	2000	-0.225	U	1.82	1.11	-0.429	U	1.59	0.966	-0.661	U	1.72	1.07	0.256	U	1.66	0.946
Sodium-22	400	0.753	U	2.08	1.17	-0.68	U	1.59	1.03	0.158	U	1.95	1.13	0.29	U	1.73	1.02
Strontium-90	8	-0.0889	U	0.534	0.26	0.226	U	0.574	0.333	1.37		0.819	0.562	-0.131	U	0.532	0.248
Tritium	20000	76.2	U	211	124	-38.1	U	211	119	-43.9	U	212	119	85.9	U	212	125
Zinc-65	360	0.917	U	3.94	2.25	0.107	U	3.71	2.22	1.02	U	4.1	2.41	-1.4	U	3.36	2.11

J - Estimated value.
U - Not detected.
* Listed value is the Selected Cleanup Goal stated in the ROD.

Table 10. Former Landfill - Summary of 2009 Radionuclide Data

Analtye	**Groundwater Standards** pCi/L	**106-20 6/3/2009 pCi/L**				**106-20 12/2/2009 pCi/L**				**106-21 12/2/2009 pCi/L**				**106-30 12/3/2009 pCi/L**			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2													0.021	U	13.1	7.87
Beryllium-7	40000													-8.21	U	19.2	12.2
Cesium-134	80													0.179	U	2.33	1.38
Cesium-137	120													-0.0253	U	1.96	1.15
Co-60	200													-0.0836	U	2.1	1.24
Cobalt-57	4000													0.561	U	1.76	1.07
Europium-152	841													1.24	U	5.89	3.47
Europium-154	573													1.19	U	5.58	3.18
Europium-155	4000													-2.29	U	7.27	4.52
Gross Alpha	15													0.136	U	1.36	0.652
Gross Beta	50*													0.896	U	1.47	0.893
Manganese-54	2000													-0.387	U	1.75	1.07
Sodium-22	400													-0.111	U	1.99	1.18
Strontium-90	8	0.0375	U	0.794	0.439	-0.161	U	0.441	0.182	0.0878	U	0.508	0.29	0.0013	U	0.48	0.251
Tritium	20000													49.6	U	212	123
Zinc-65	360													-0.946	U	4.17	3.06

J - Estimated value.
U - Not detected.
* Listed value is the Selected Cleanup Goal stated in the ROD.

Table 10. Former Landfill - Summary of 2009 Radionuclide Data

Analtye	**Groundwater Standards** pCi/L	**106-43 6/3/2009 pCi/L**				**106-43 12/2/2009 pCi/L**				**106-44 6/3/2009 pCi/L**				**106-44 12/2/2009 pCi/L**			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2																
Beryllium-7	40000																
Cesium-134	80																
Cesium-137	120																
Co-60	200																
Cobalt-57	4000																
Europium-152	841																
Europium-154	573																
Europium-155	4000																
Gross Alpha	15																
Gross Beta	50*																
Manganese-54	2000																
Sodium-22	400																
Strontium-90	8	1.07		0.612	0.417	1.04		0.72	0.486	4.62		0.51	0.571	2.53		0.694	0.57
Tritium	20000																
Zinc-65	360																

J - Estimated value.
U - Not detected.
* Listed value is the Selected Cleanup Goal stated in the ROD.

Table 10. Former Landfill - Summary of 2009 Radionuclide Data

Analtye	**Groundwater Standards** pCi/L	**106-45 6/3/2009 pCi/L**				**106-45 12/2/2009 pCi/L**				**106-64 6/3/2009 pCi/L**				**106-64 12/2/2009 pCi/L**			
		Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	1.2																
Beryllium-7	40000																
Cesium-134	80																
Cesium-137	120																
Co-60	200																
Cobalt-57	4000																
Europium-152	841																
Europium-154	573																
Europium-155	4000																
Gross Alpha	15																
Gross Beta	50*																
Manganese-54	2000																
Sodium-22	400																
Strontium-90	8	3.07		0.647	0.543	1.5		0.76	0.535	2.34		0.558	0.471	2.23		0.774	0.59
Tritium	20000																
Zinc-65	360																

J - Estimated value.
U - Not detected.
* Listed value is the Selected Cleanup Goal stated in the ROD.

Table 11
Soil Gas Monitoring Well Description

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

Table 11
Soil Gas Monitoring Well Description

Current Landfill			
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

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

BLS – Below Land Surface

Table 12

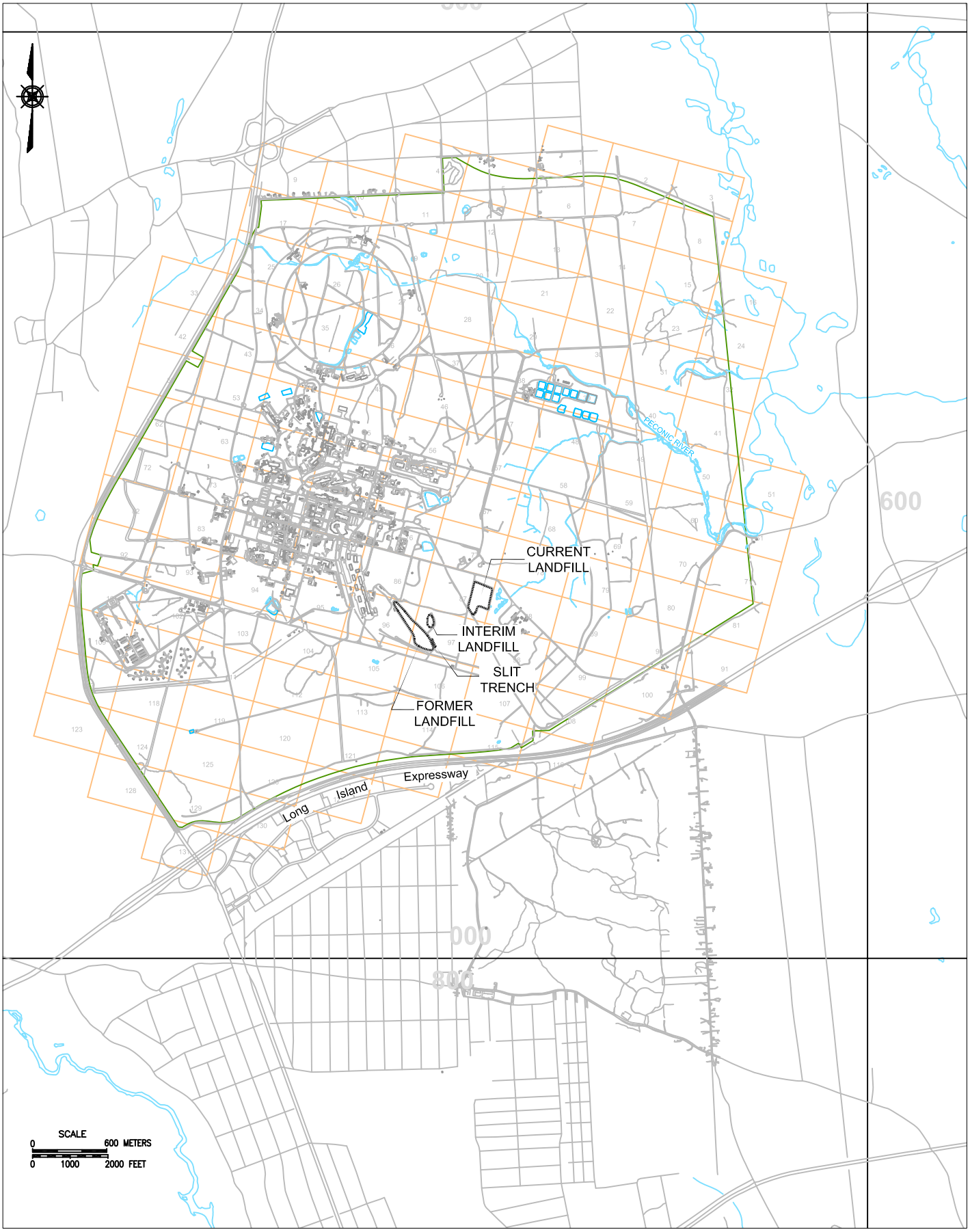
2009 Current Landfill Soil Gas Monitoring Summary Table

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

Table 13

2009 Former Landfill Soil-Gas Monitoring Summary Table

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



R:\Gw_projects\Landfills\2009 Report\Fig01.dwg

BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

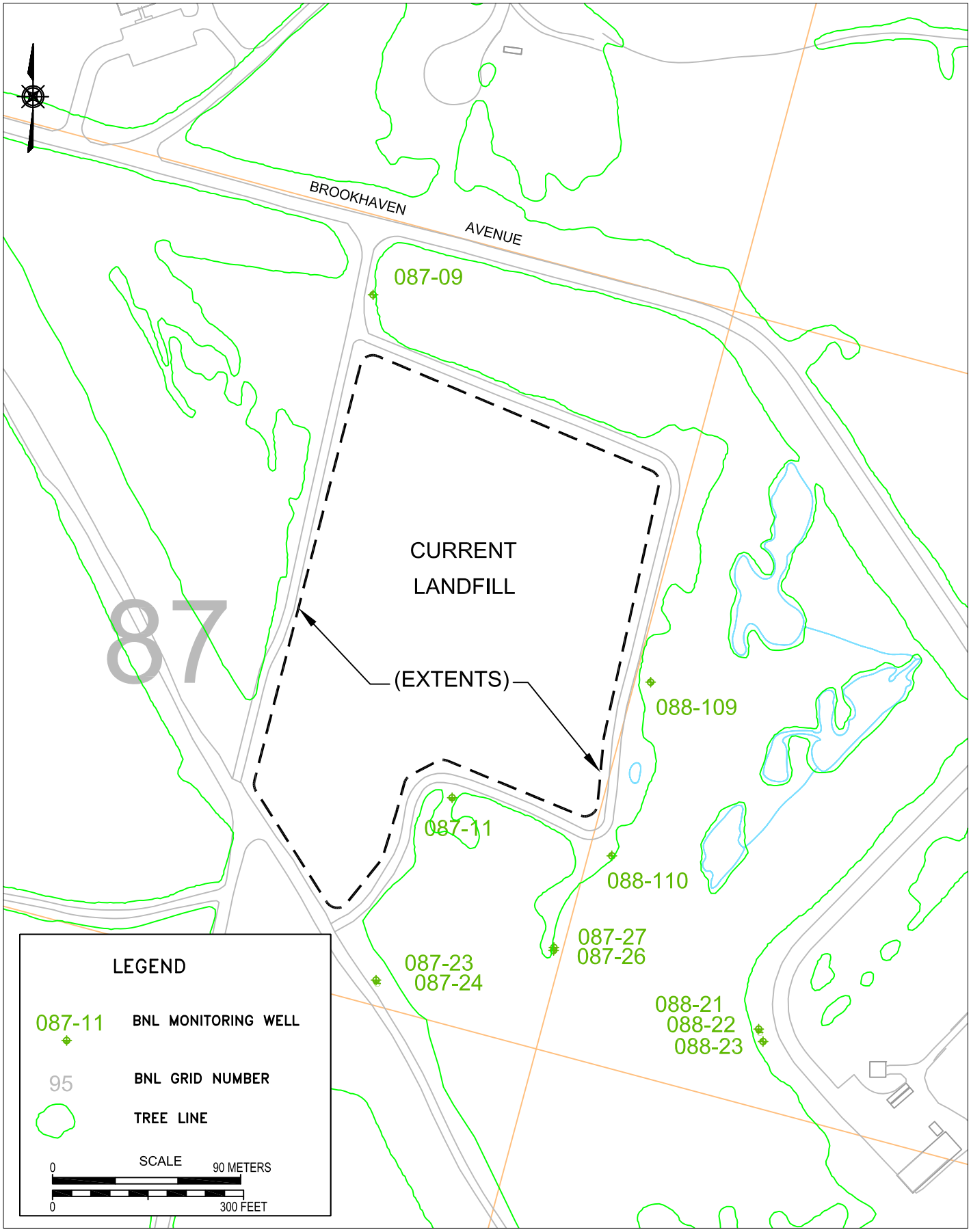
TITLE:

SITE LOCATION MAP

2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/25/10	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

FIGURE NO.: 1



R:\Gw_projects\Landfills\2009 Report\Fig02.dwg

BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

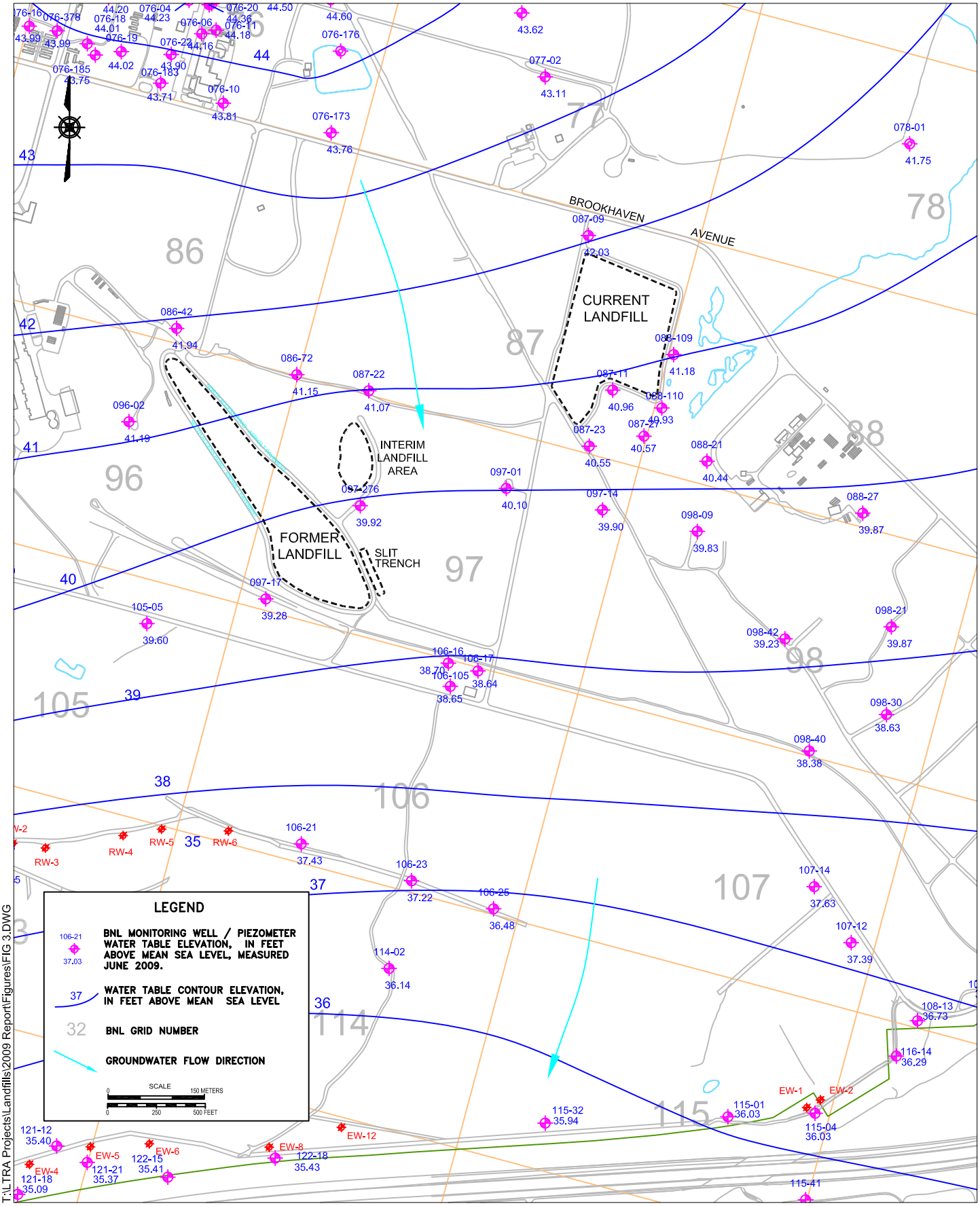
TITLE:

CURRENT LANDFILL MONITORING WELL LOCATIONS

2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/25/10	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	–	–

FIGURE NO.: 2



T:\LTRA Projects\Landfills\2009 Report\Figures\FIG 3.DWG

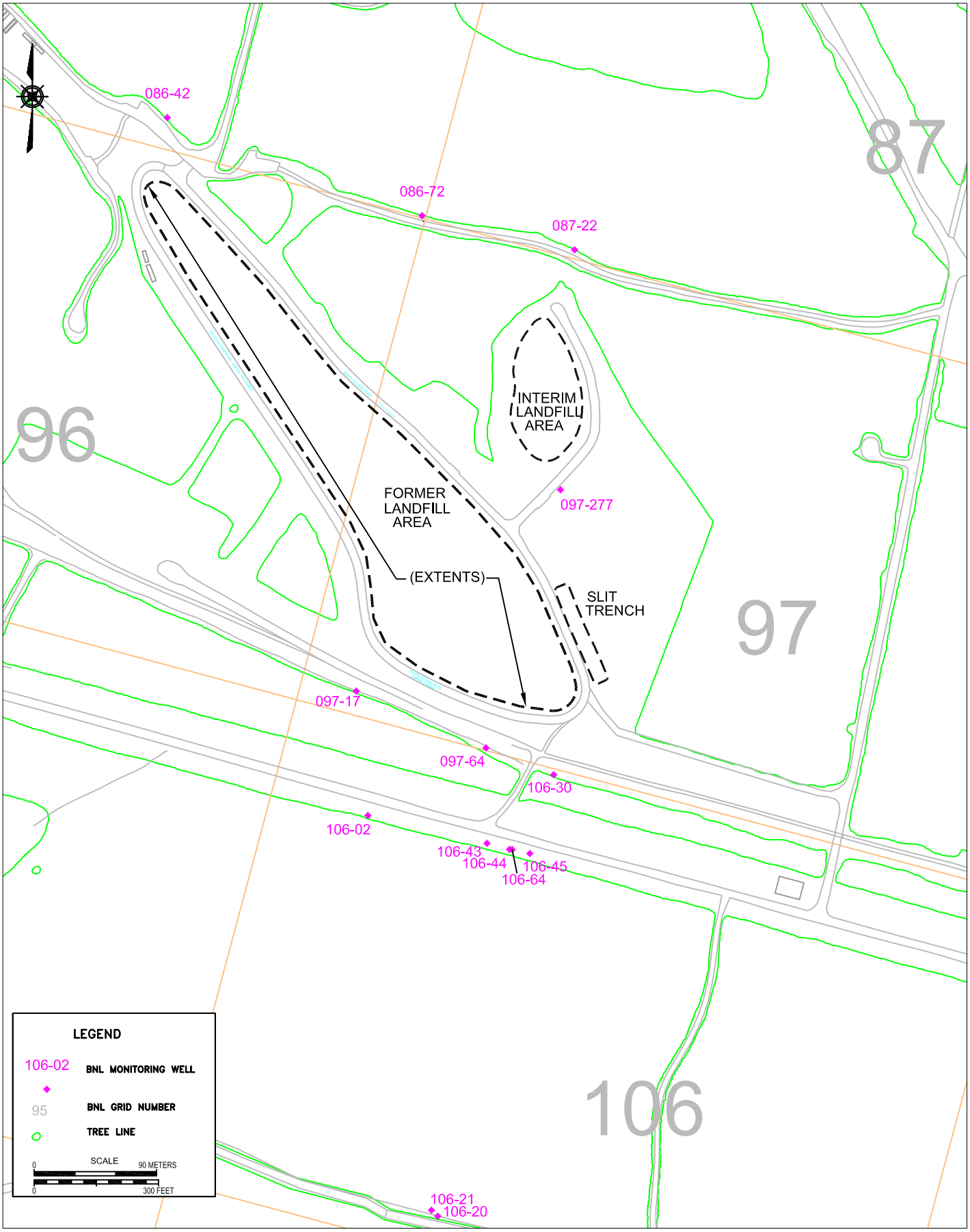
BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

WATER TABLE CONTOUR MAP
2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/25/10	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

FIGURE NO.: 3



R:\Gw_projects\Landfills\2009 Report\Fig04.dwg

BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

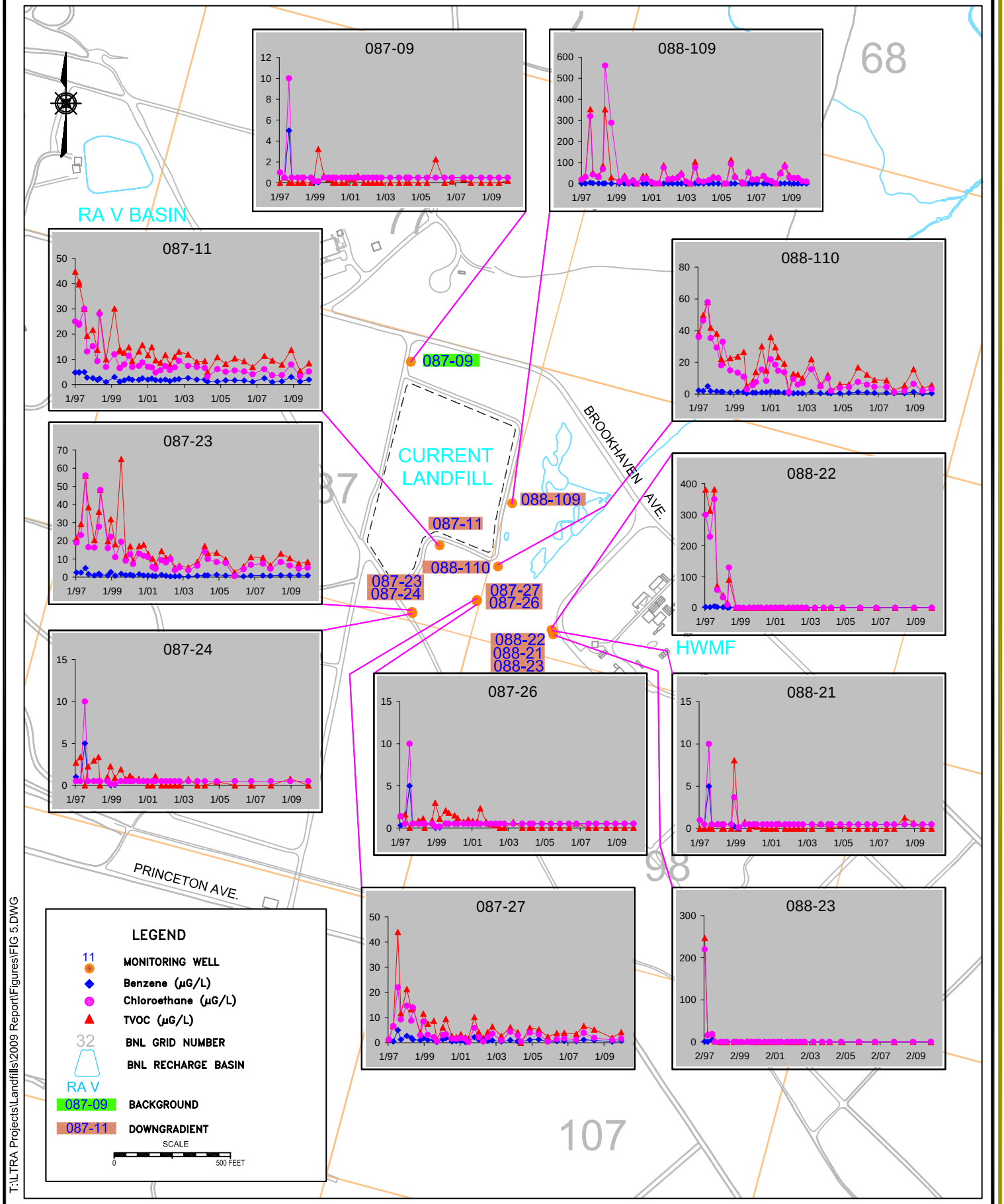
TITLE:

FORMER LANDFILL MONITORING WELL LOCATIONS

2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/25/10	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

FIGURE NO.: 4



BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

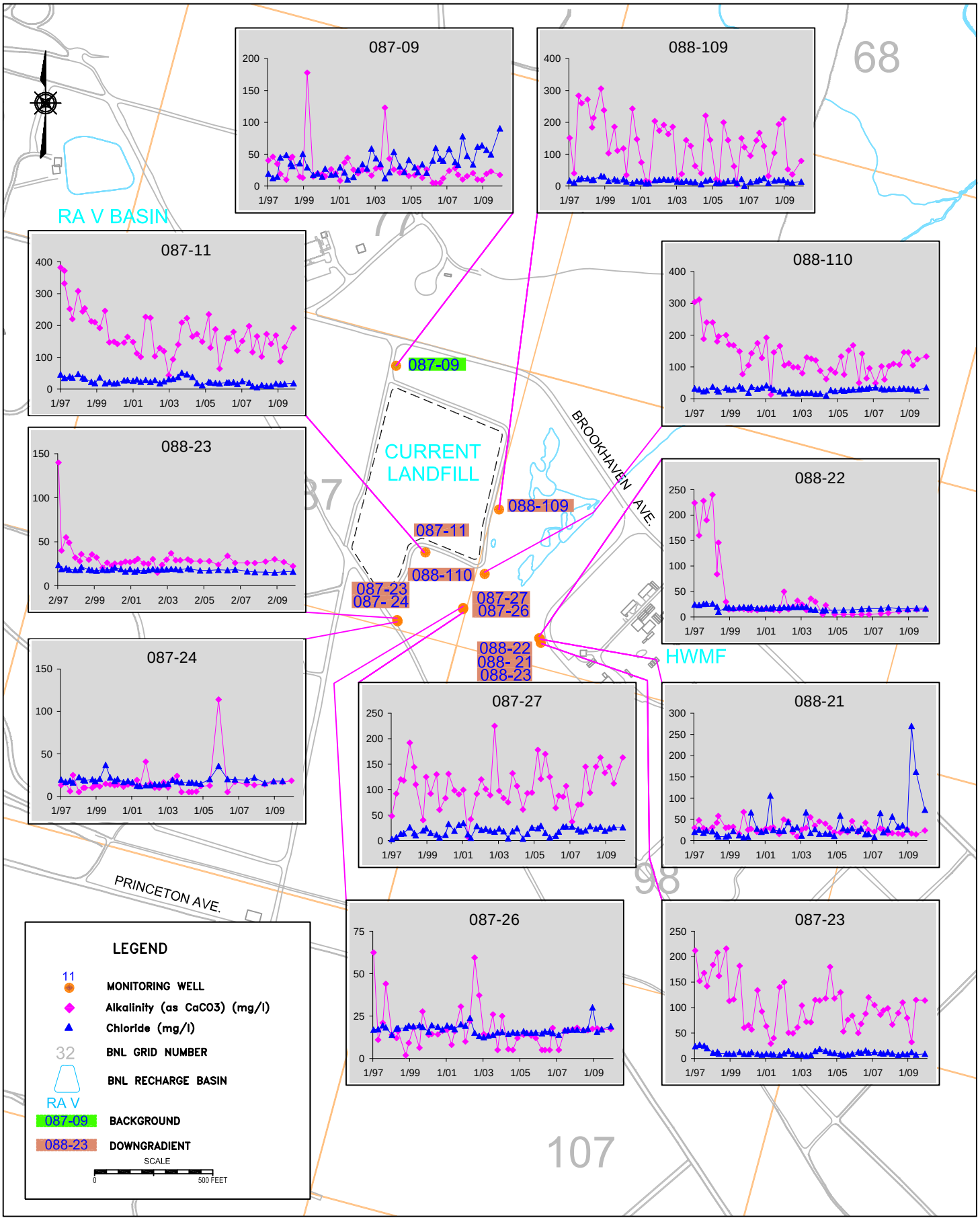
TITLE:

CURRENT LANDFILL VOC TREND PLOTS

2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/25/10	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

FIGURE NO.: 5



T:\LTRA Projects\Landfills\2009 Report\Figures\FIG 6.DWG

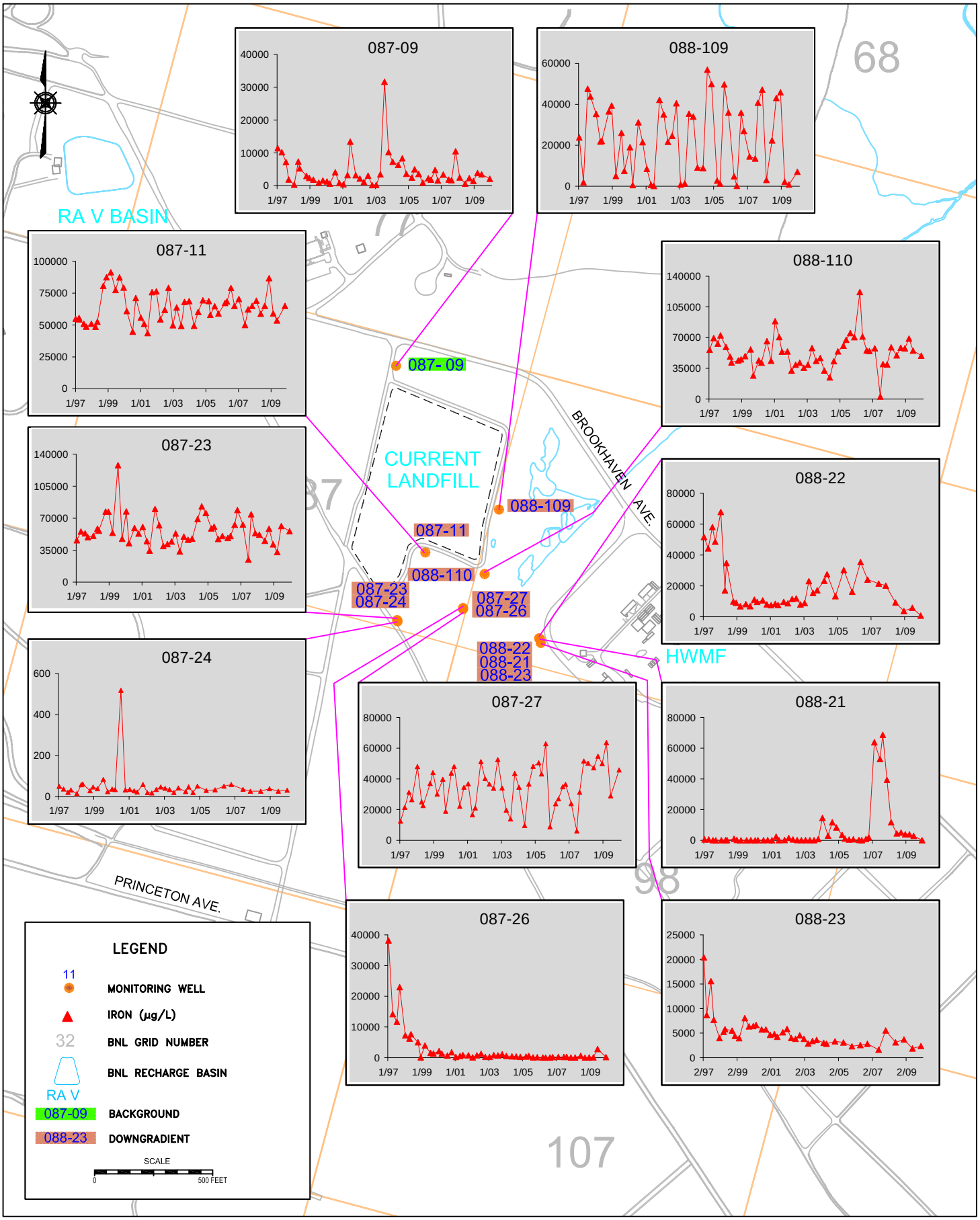
BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

CURRENT LANDFILL
ALKALINITY AND CHLORIDE TREND PLOTS
2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/25/10	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

FIGURE NO.: 6



BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

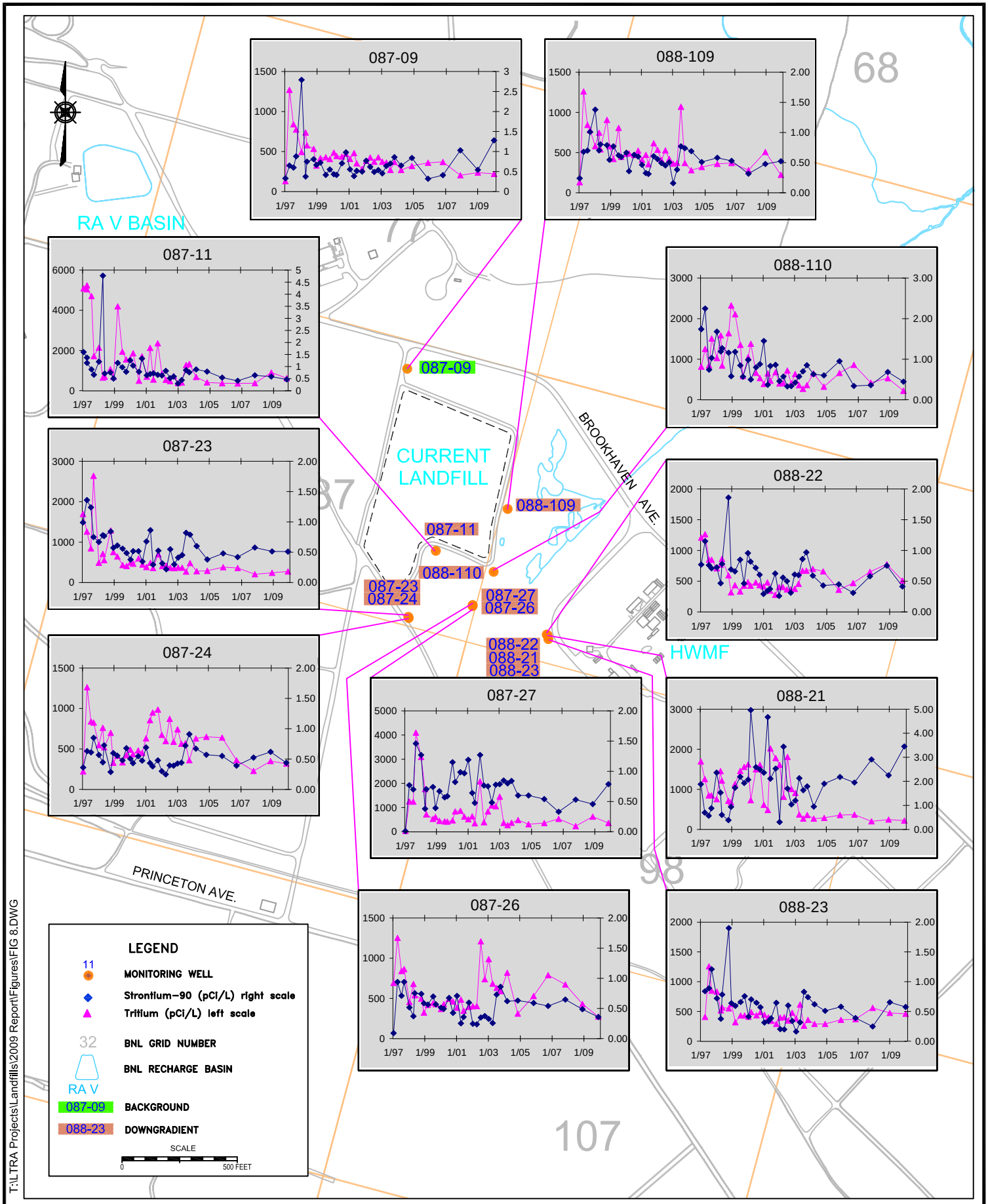
TITLE:

CURRENT LANDFILL IRON TREND PLOTS

2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/25/10	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

FIGURE NO.: 7



T:\LTRA Projects\Landfills\2009 Report\Figures\FIG 8.DWG

BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

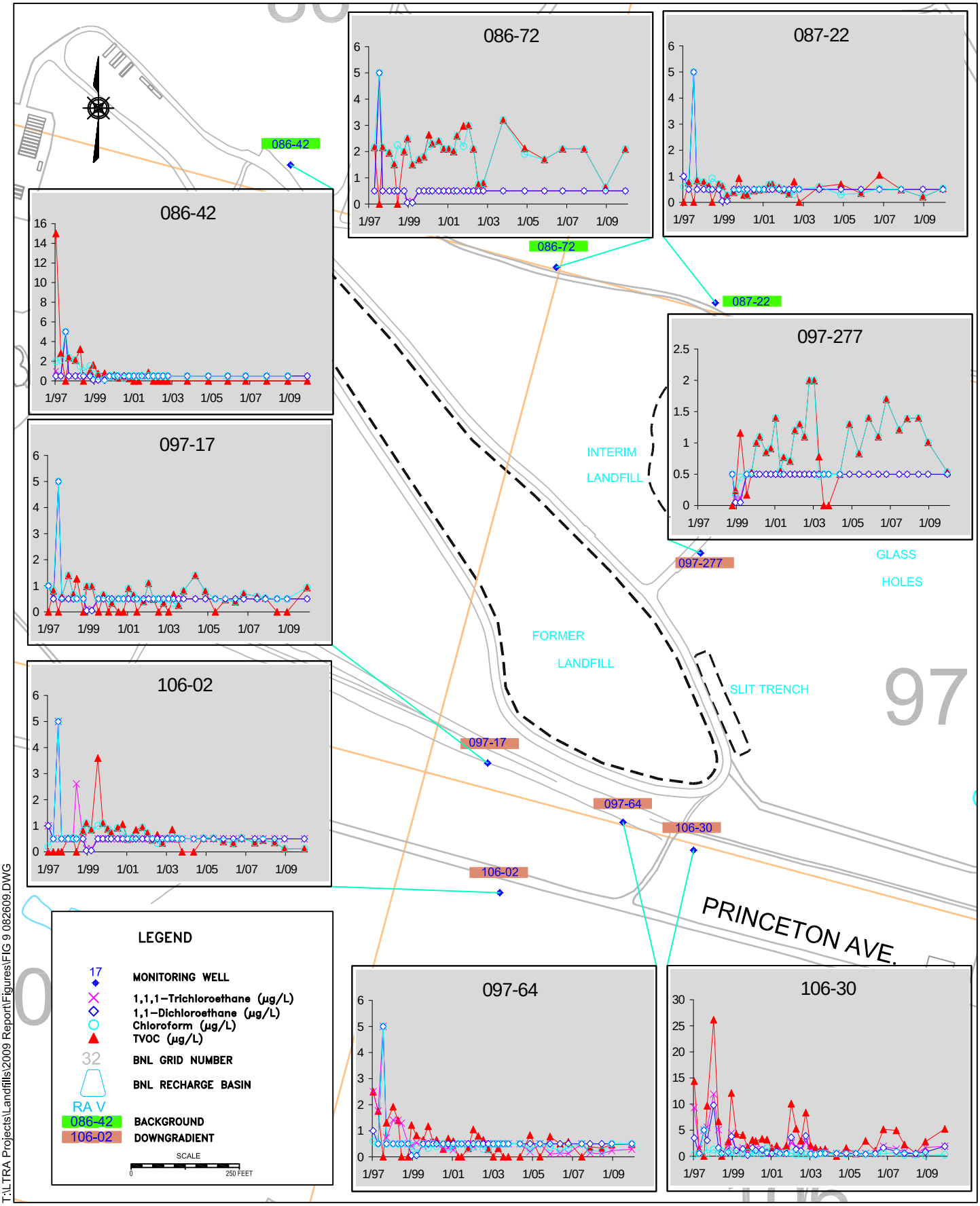
TITLE:

CURRENT LANDFILL TRITIUM AND SR-90 TREND PLOTS

2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/25/10	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

FIGURE NO.: 8



T:\LTRA Projects\Landfills\2009 Report\Figures\FIG 9 082609.DWG

BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

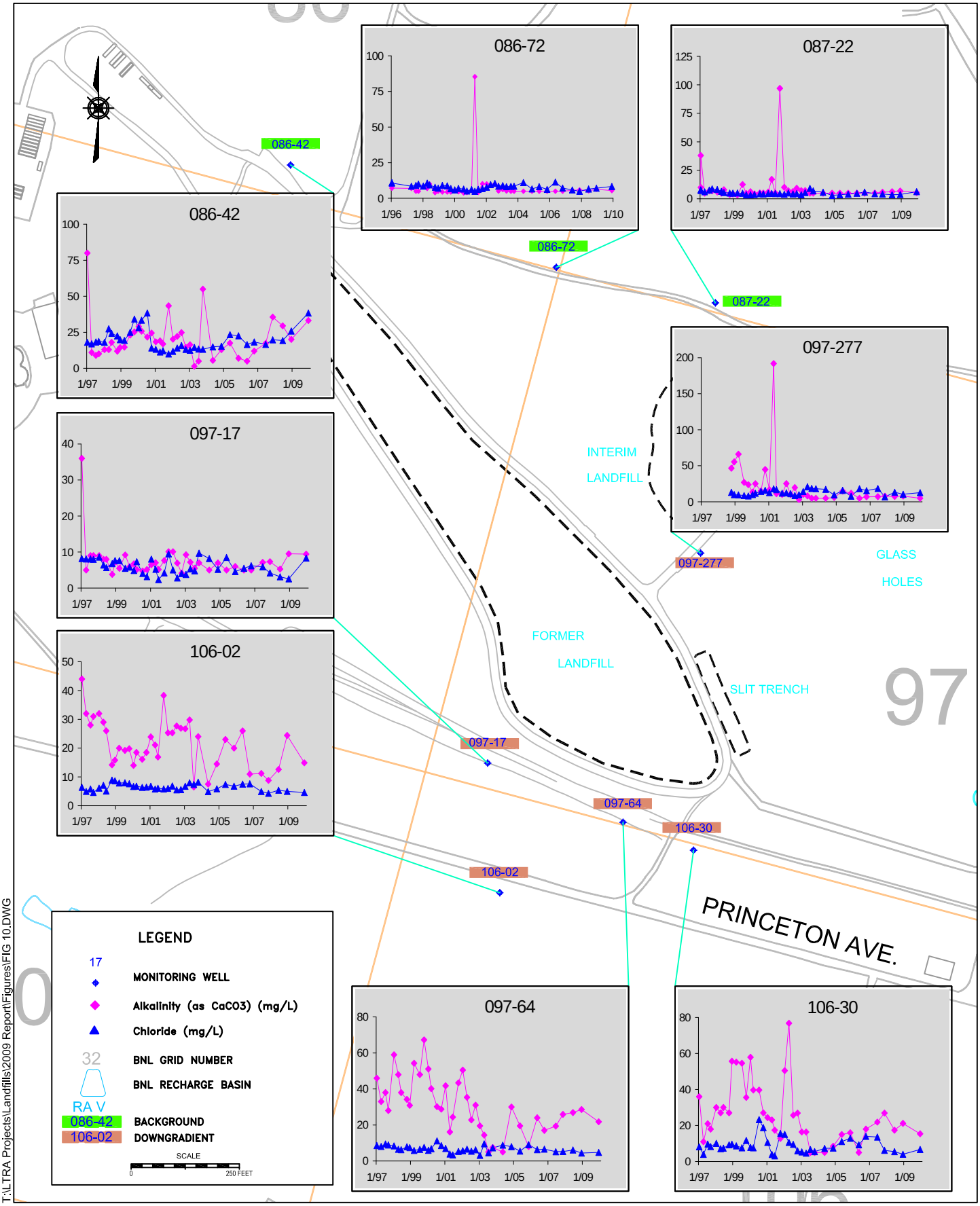
TITLE:

FORMER LANDFILL VOC TREND PLOTS

2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/25/10	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

FIGURE NO.: 9



T:\LTRA Projects\Landfills\2009 Report\Figures\FIG 10.DWG

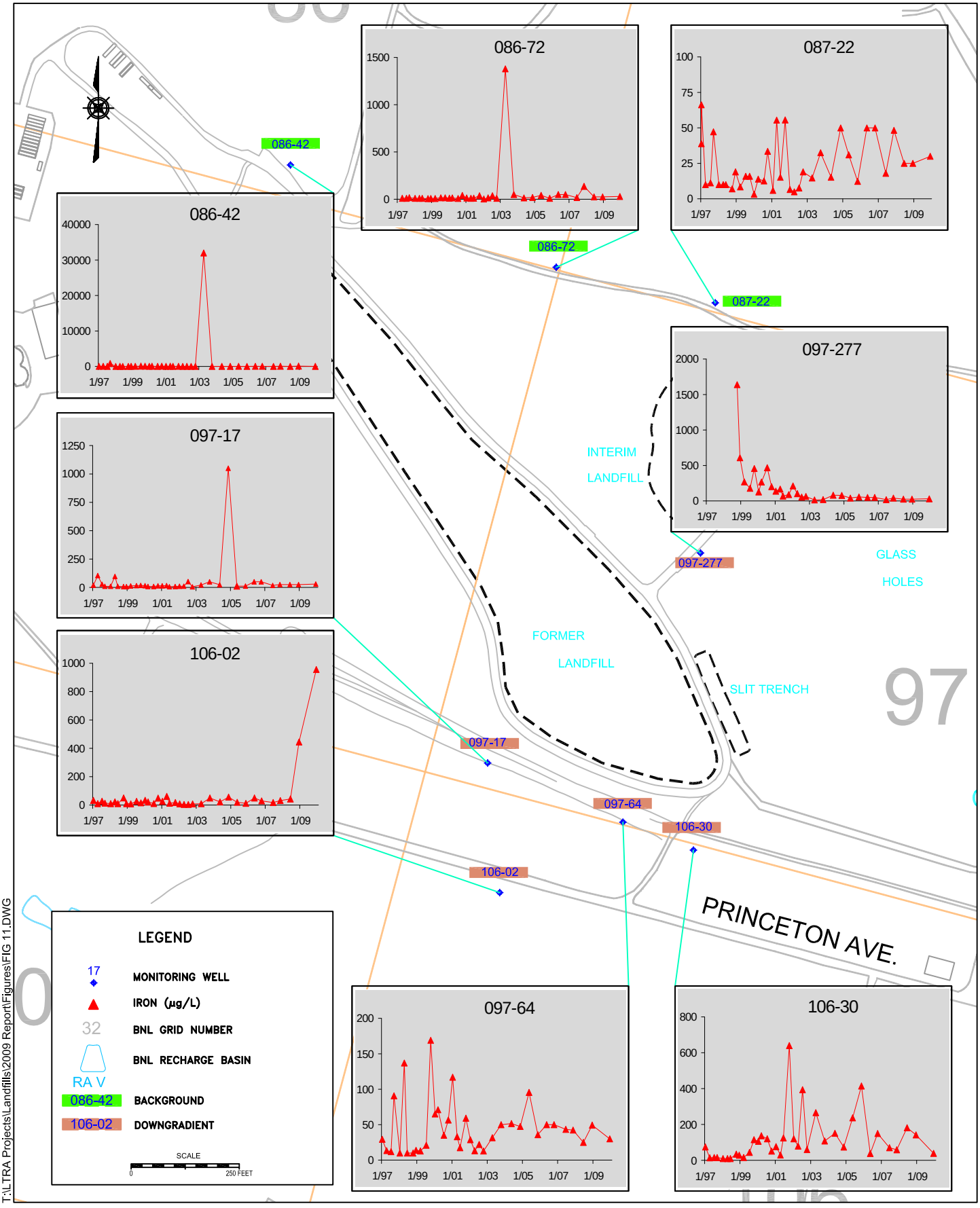
BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

FORMER LANDFILL
ALKALINITY AND CHLORIDE TREND PLOTS
2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/25/10	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

FIGURE NO.: 10



T:\LTRA Projects\Landfills\2009 Report\Figures\FIG 11.DWG

BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

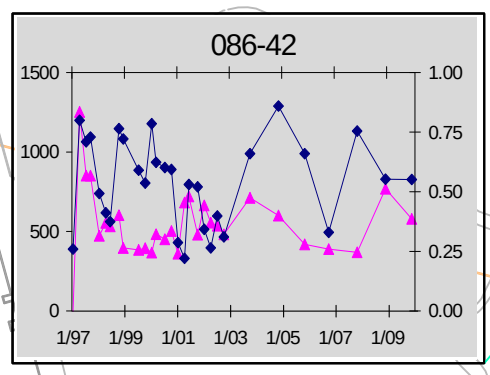
TITLE:

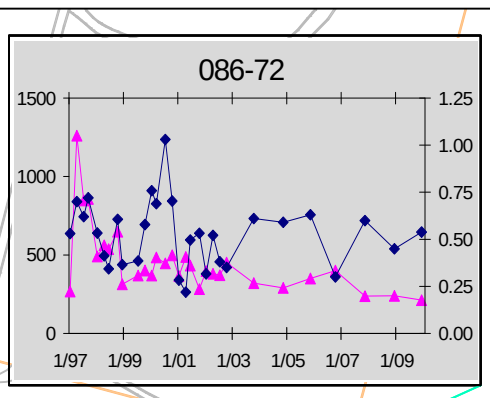
FORMER LANDFILL IRON TREND PLOTS

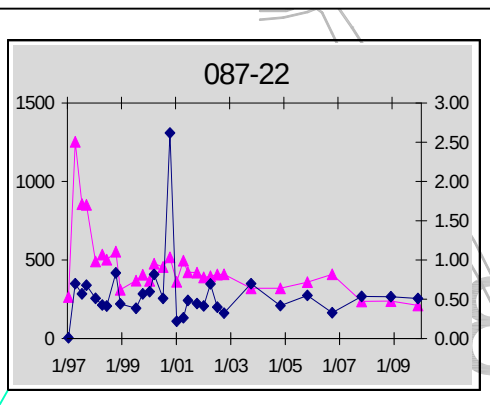
2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

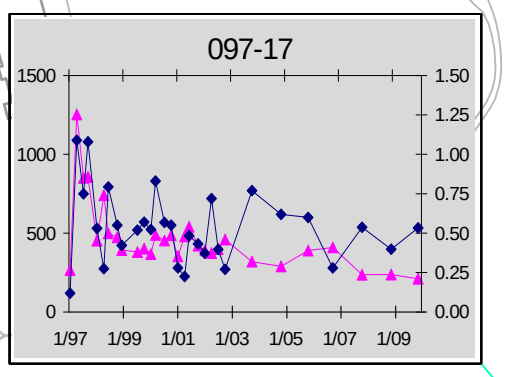
DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/25/10	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

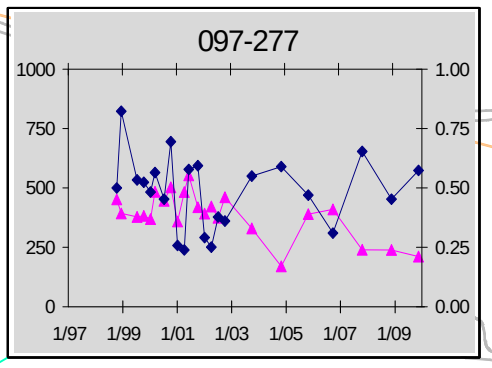
FIGURE NO.: 11

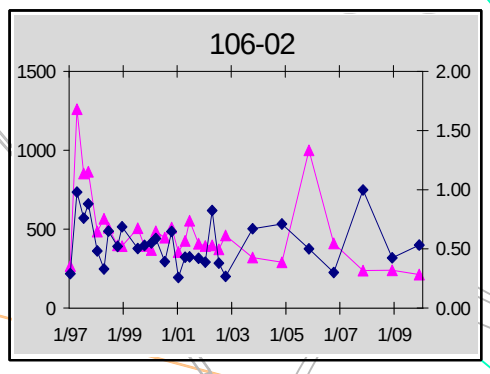


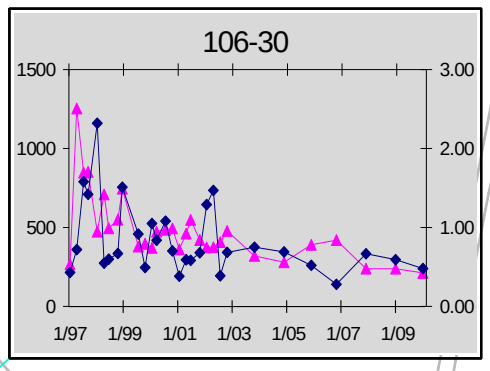


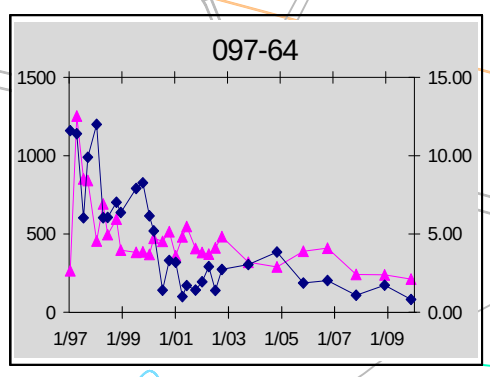


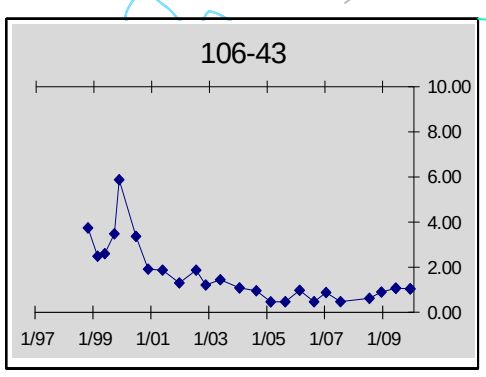


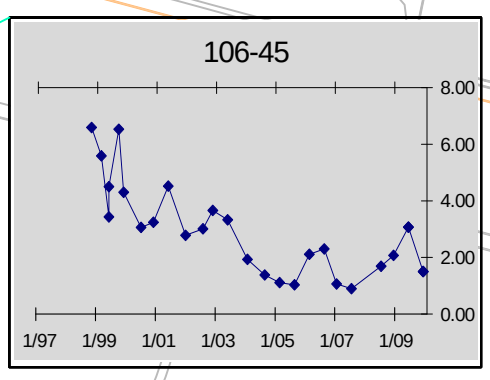


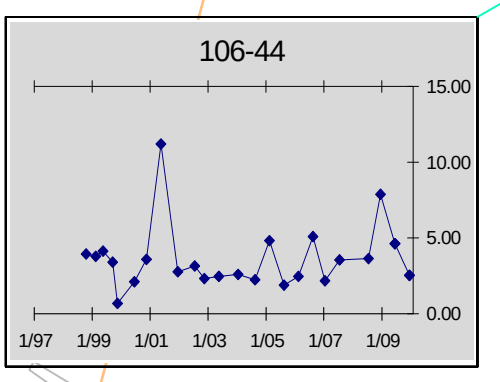


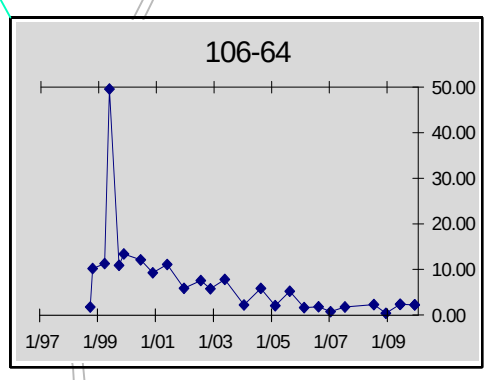


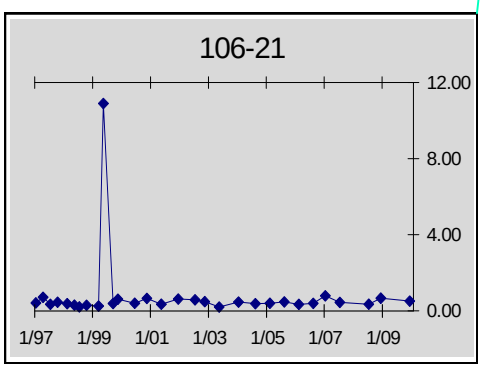


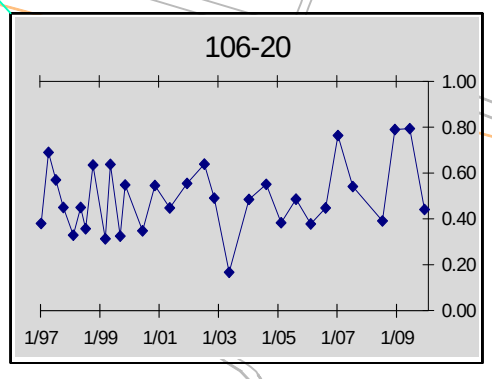












086-42
086-72
087-22
097-17
097-64
106-02
106-30
106-44
106-64
106-43
106-45
097277
106-21
106-20

INTERIM LANDFILL
FORMER LANDFILL
SLIT TRENCH
GLASS HOLES
PRINCETON AVE.

LEGEND

- 17 — MONITORING WELL
- Strontium–90 (pCi/L) right scale
- Tritium (pCi/L) left scale
- 32 — BNL GRID NUMBER
- RA V — BNL RECHARGE BASIN
- 086-42 — BACKGROUND
- 106-02 — DOWNGRADIENT

SCALE 0 250 FEET

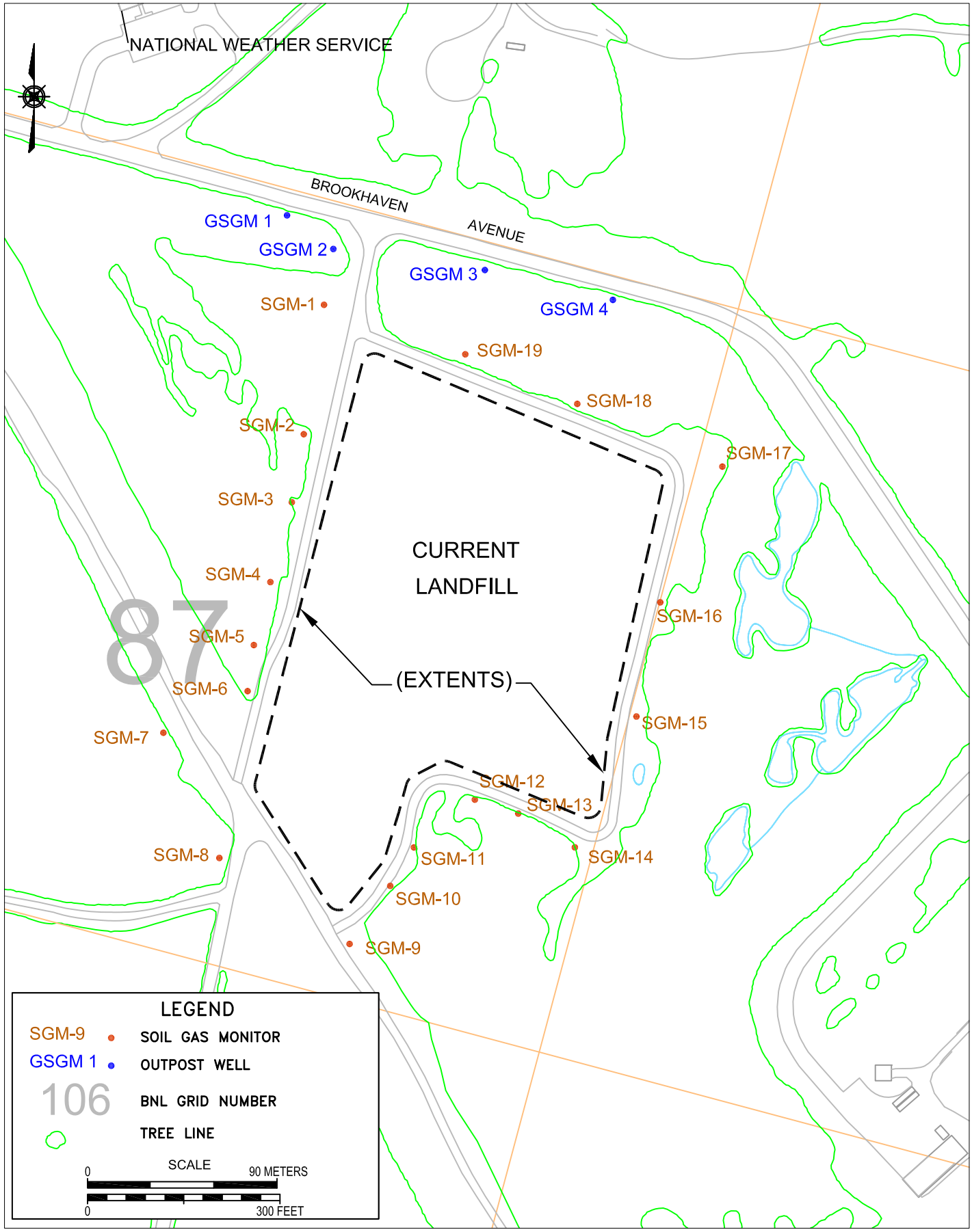
T:\LTRA Projects\Landfills\2009 Report\Figures\FIG 12.DWG

BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
FORMER LANDFILL TRITIUM AND SR–90 TREND PLOTS
2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VS: HS.:	DATE:	PROJECT NO.:
AJZ	–	02/25/10	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

FIGURE NO.: 12



R\Gw_projects\Landfills\2009 Report\Fig13.dwg

BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

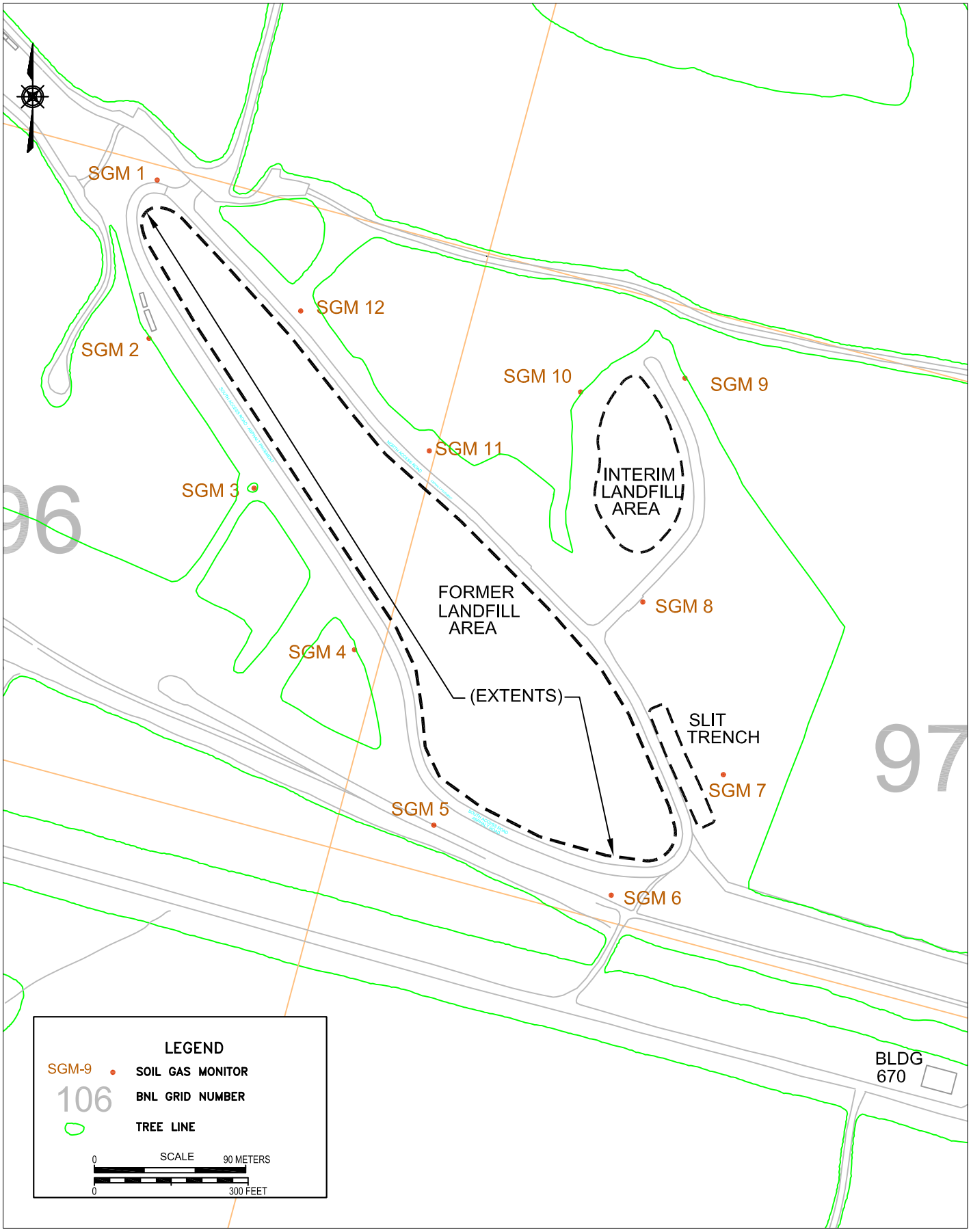
TITLE:

CURRENT LANDFILL SOIL GAS MONITOR LOCATION MAP

2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/25/10	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

FIGURE NO.: 13



R\Gw_projects\Landfills\2009 Report\Fig14.dwg

BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
FORMER LANDFILL
SOIL GAS MONITOR LOCATION MAP
2009 ENVIRONMENTAL MONITORING REPORT
CURRENT AND FORMER LANDFILL AREAS

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/25/10	–
CHKD:	APPD:	REV.:	NOTES:
JEB	WRD	–	–

FIGURE NO.: 14

Appendix A

Soil-gas Sampling Field Notes

24

3/18/09 Current Landfill

45° clr 30.02 "Hg Calcheck Gem 2000

Location	Well ID	CH4 %	LEL %	H2S PPM	Comment
Sam 1A	087-62	12.6	~~34.50~~	0	1179
1B	087-78	12.3	>100	0	1176
Sam 1C	087-79	10.0	>100	0	1134
2A	087-63	50.0	>100	0	1138
2B	087-80	48.8	>100	0	1147
2C	087-81	50.8	>100	#1	1157
3A	087-64	28.9	>100	0	1205
3B	087-82	55.9	>100	12	1215
3C	087-83	54.7	>100	26	1225
4A	087-65	42.1	>100	1	1305
4B	087-84	39.9	>100	4	1312
4C	087-85	31.9	>100	5	1322
5A	087-66	38.1	>100	3	1327
5B	087-86	33.8	>100	3	1334
5C	087-87	26.8	>100	3	1344
6A	087-67	39.0	>100	0	1350
6B	087-88	39.2	>100	3	1356
6C	087-89	37.7	>100	3	1406
7A	087-68	0.0	0	0	1410
7B	087-90	0.0	0	0	1416
7C	087-91	0.0	0	0	1425

25

3/18/09 Current Landfill

Location	Well ID	CH4 %	LEL %	H2S	Comment
Sam 8A	087-69	0.0	0	0	1428
8B	087-92	0.0	0	0	1434
8C	087-93	0.0	0	0	1443
9A	087-70	0.0	0	0	1447
9B	087-94	0.0	0	0	1453
9C	087-95	0.0	0	0	1503
10A	087-71	1.5	31%	0	1506
10B	087-96	4.6	93%	3	1512
10C	087-97	4.0	80%	3	1522
11A	087-72	4.5	90%	0	1525
11B	087-98	4.0	80%	0	1532
12A	087-78	45.5	>100	24	1585
12B	087-99	39.6	>100	0	1592
13A	087-74	0.0	0	0	1545
13B	087-100	0.0	0	0	1551
14A	087-75	2.8	57	0	1554
14B	087-101	0.0	0	0	1600
15A	088-111	0.0	0	0	1604
15B	088-114	0.0	0	0	1610
16A	088-112	0.0	0	0	1614
Sam 16B	088-115	0.0	0	0	1620

Current Landfill

3/18 — 3/19/09

19th overcast 41° 29.90" Hg

Location	Well ID	CH4%	LEL %	H2S ppm	
17A	088-163	0.0	0	0	1640
17B	088-116	0.0	0	0	Blockage 3/19/09 0910 Bl.(?)
18A	087-76	0.0	0	0	
18B	087-102	0.0	0	0	Blockage 0919
19A	087-77	14.4	>100	0	0925
19B	087-103	5.9	>100	2	0930
SGM 1A	No ID	0.0	0	0	1015
1B		0.0	0	0	1020
1C		0.0	0	0	1030
2A		0.0	0	0	0949
2B		0.0	0	0	0956
2C		0.0	0	0	1010
3A		0.0	0	0	0946
3B		0.0	0	0	0952
4A		0.0	0	0	0935
SGM 4B		0.0	0	0	0942

Current Landfill

7/28/09 Cal check LandTec GEM 2000

82° Sunny 29.80" Hg

Location	Well ID	CH4%	LEL %	H2S ppm	Comment
SGM 1A	087-62	16.7	>100	0	1630
1B	087-78	15.4	>100	0	1636
SGM 1C	087-79	13.2	>100	0	1645
2A	087-63	48.4	>100	0	1650
2B	087-80	55.2	>100	18	1656
2C	087-81	57.8	>100	7	1705
3A	087-64	31.8	>100	0	1708
3B	087-82	67.5	>100	25	1713
3C	087-83	65.6	>100	32	1723
4A	087-65	48.5	>100	0	1726
4B	087-84	53.3	>100	7	1732
4C	087-85	51.9	>100	3	1741
5A	087-66	46.2	>100	0	1744
5B	087-86	43.3	>100	4	1750
5C	087-87	37.1	>100	3	1753
6A	087-67	42.3	>100	0	1759
6B	087-88	43.0	>100	4	1806
6C	087-89	42.2	>100	3	1815
7A	087-68	0.5	10	0	1818
7B	087-90	0.0	0	0	1824
SGM 7C	087-91	0.9	18	0	1833

28

Current Landfill

7/29/09

Check Gem 2000 — 80° overcast Humid — 29.73" Hg

Location	Well ID	CH_4 %	LEL %	H_2S ppm	
SGM 8A	087-69	0.0	0	0	1430
8B	087-92	0.0	0	0	1436
8C	087-93	0.0	0	0	1445
9A	087-70	0.0	0	0	1449
9B	087-94	0.0	0	0	1455
9C	087-95	0.0	0	0	1505
10A	087-71	22.7	>100	14	1510
10B	087-96	19.6	>100	3	1516
10C	087-97	17.4	>100	4	1525
SGM 11A	087-72	22.1	>100	20	1528
11B	087-98	21.6	>100	9	1534
12A	087-78	51.8	>100	72	1538
12B	087-99	49.0	>100	16	1544
13A	087-74	0.5	10	3	1547
13B	087-100	42.6	>100	4	1553
14A	087-75	14.0	>100	3	1556
14B	087-101	0.0	0	0	1606
15A	088-111	0.0	0	0	1610
15B	088-114	0.0	0	0	1616
16A	088-112	0.0	0	0	1620
SGM 16B	088115	0.0	0	0	1626

29

Current Landfill

7/29/09

Location	Well ID	CH_4 %	LEL %	H_2S ppm	
17A	088-113	0.0	0	0	1630
17B	088-116	0.0	0	0	1636 Blockage
18A	087-76	0.0	0	0	1640
18B	087-102	0.0	0	0	1644
19A	087-77	44.9	>100	31	1649
19B	087-103	46.3	>100	1	1648
GSGM 1A	NO ID	0.0	0	0	1650
1B		0.0	0	0	1656
1C		0.0	0	0	1659
2A		0.0	0	0	1703
2B		0.0	0	0	1706
2C		0.0	0	0	1715
3A		0.0	0	0	1719
3B		0.0	0	0	1724
4A		0.0	0	0	1730
GSGM 4B		0.0	0	0	1740

30 Current Landfill DM

11/5/09 Cal check of Gem 2000

40° Sunny CW 30.01 "Hg

Location	Well ID	CH4 %	LEL %	H2S ppm	Time/comments
SGM 1A	087-62	15.0	7100	1	0910
1B	087-78	14.3	7100	4	0917
1C	087-79	12.3	>100	3	0926
2A	087-63	50.1	>100	0	0930
2B	087-80	40.2	>100	0	0936
2C	087-81	56.5	>100	0	0945
3A	087-64	270	700	6	0950
3B	087-82	65.9	760	21	1002
3C	087-83	59.5	>100	67	1012
4A	087-65	44.4	>100	2	1014
4B	087-84	49.1	>100	4	1020
4C	087-85	38.9	7100	1	1030
5A	087-66	43.1	>100	4	1034
5B	087-86	38.8	>100	5	1040
5C	087-87	30.7	>100	3	1050
6A	087-67	42.6	>100	0	1054
6B	087-88	42.7	7100	6	1100
6C	087-89	40.6	7100	4	1110
7A	087-68	0.0	0	0	1106
7B	087-90	0.0	0	0	1117
SGM 7C	087-91	0.0	0	0	1128

Current Landfill — 31

11/5/09 Cal check of Gem 2000

Location	Well ID	CH4 %	LEL %	H2S ppm	
SGM 8A	087-69	0.0	0	0	1131
8B	087-92	0.0	0	0	1135
8C	087-93	0.0	0	0	1146
9A	087-70	0.0	0	0	1150
9B	087-94	0.0	0	0	1156
9C	087-95	0.0	0	0	1206
10A	087-71	13.2	>100	5	1300
10B	087-96	16.1	>100	2	1306
10C	087-97	11.2	>100	0	1316
11A	087-72	17.6	>100	10	1320
11B	087-98	13.3	>100	1	1330
12A	087-78	48.7	>100	21	1335
12B	087-99	51.7	>100	0	1341
13A	087-74	1.0	21	0	1345
13B	087-100	0	1	0	1353
14A	087-75	6.2	>100	0	1358
14B	087-101	0.0	1	0	1406
15A	088-111	0.0	0	0	1412
15B	088-114	0.0	0	0	1420
16A	088-112	0.0	0	0	1425
SGM 16B	088-115	0.0	0	0	1437

Current Landfill

11/5/09 → 11/6/09 Cal check of Rem 2000

11/6/09 49° windy 30.03" Hg

Location	Well ID	CH4%	LEL %	H2S PPM	
SGM 17A	088-113	0.0	0	0	1437
17B	088-116	0.0	0	0	Bloodhound
18A	087-76	0.0	0	0	1500
18B	087-102	0.0	0	0	1510
19A	087-77	25.9	>100	7	1520
SGM 19B	087-103	28.9	>100	12	1529
GSGM 1A	No ID	0.0	0	0	1005
1B		0.0	0	0	1015
1C		0.0	0	0	1030
2A		0.0	0	0	0935
2B		0.0	0	0	0945
2C		0.0	0	0	0959
3A		0.0	0	0	0915
3B		0.0	0	0	0925
4A		0.0	0	0	0900
GSGM 4B		0.0	0	0	0910

11/6/09

Current Landfill

12/15/09 - 12/16/09 Cal check of Rem 2000

DM 50° clr 29.72" Hg

Location	Well ID	CH4%	LEL%	H2S PPM	Time/comments
SGM 4A	087-62	19.4	>100 388	3	1350
4B	087-78	19.2	>100 384	3	1357
4C	087-79	17.2	>100 344	1	1408
2A	087-63	50.9	>100 1018	0	1416
2B	087-80	10.6	>100 212	0	1422
2C	087-81	59.3	>100 1186	0	1432
3A	087-64	14.3	760 286	0	1435
3B	087-82	72.2	>100 1444	20	1441
3C	087-83	0.2	3%	0	1451
4A	087-65	44.9	>100 898	0	1454
4B	087-84	52.7	>100 1054	7	1500
4C	087-85	48.3	>100 966	2	1506
5A	087-66	45.2	>100 904	1	1514
5B	087-87	44.5	>100 890	7	1520
5C	087-87	0	0	0	1530
6A	087-67	9.8	>10 196	0	1535
6B	087-88	0	0	0	1541
6C	087-89	0	0	0	1551
7A	087-68	0	0	0	0850
7B	087-90	0	0	0	0856
SGM 7C	087-91	0	0	0	0906

12/16/09

Current Landfill

12/16/09 Cal check at Gas 2.0 32°F Clr 30.08 "Hg

Location	Well ID	CH4 %	LeL %	H2S ppm	Time/comments
SGM 8A	087-69	0	0	0	0910
8B	087-92	0	0	.0	0916
8C	087-93	0	0	0	0927
9A	087-70	0	0	0	0934
9B	087-94	0	0	0	0940
9C	087-95	0	0	0	0950
10A	087-71	0.5	10%	0	0956
10B	087-96	0.1	2	0	1000
10C	087-97	0.2	1	0	1013
11A	087-72	14.7	>100 294	~~0~~ 2	1017
11B	087-98	10.9	>100 218	1	1024
12A	087-78	52.4	>100 1049	15	1028
12B	087-99	47.3	>100 946	3	1036
13A	087-74	0.1	2	0	1040
13B	087-100	0.1	2	0	1047
14A	087-75	1.1	22	0	1052
14B	087-101	0	0	0	1059
15A	088-111	0	0	0	1107 Blockage
15B	088-114	0.1	2	0	Blockage 114
16A	088-112	0	0	0	1120
SGM 16B	088-115	0.1	2	0	1127

Current Landfill

12/16/09 Cal check at Gas 2.0 32°F Clr 30.08 "Hg

Location	Well ID	CH4 %	LeL %	H2S ppm	Time/comments
SGM 17A	088-113	0	0	0	Blockage 1318
17B	088-116	0	0	0	1317
18A	087-76	0	0	0	Blockage 1329
18B	087-102	0	0	0	Blockage 1336
19A	087-77	33.6	>100 672	15	1345
SGM 19B	087-103	30.6	>100 612	4	1355
GSGM 1A	NO ID	0	0	0	1440
1B		0	0	0	1448
1C		0	0	0	1460
2A		0	0	0	1420
2B		0	0	0	1427
2C		0	0	0	1435
3A		0	0	0	1421
3B		0	0	0	1428
4A		0	0	0	1405
GSGM 4B		0	0	0	1412

13 J. milligan
3/18/09 Former Land Fill
45° Clear C-1 chem of GEM 2000 w/span gas

29.98" Hg

Location	Well ID	CH4 %	LEL %	H2S PPM	Comment
SGM 1A	096-41	0.0	0	0	0900
SGM 1B	096-42	0.0	0	0	0906
2A	096-43	0.0	0	0	0910
2B	096-44	0.0	0	0	0916
3A	096-45	0.0	0	0	0920
3B	096-46	0.0	0	0	0926
4A	096-47	0.0	0	0	0930
4B	096-48	0.0	0	0	0936
5A	097-50	0.0	0	0	0940
5B	097-51	0.0	0	0	0946
6A	097-52	0.0	0	0	0954
6B	097-53	0.0	0	0	1000
7A	097-54	0.0	0	0	1005
7B	097-55	0.0	0	0	1011
8A	097-56	0.0	0	0	1015
8B	097-57	0.0	0	0	1024
9A	097-58	0.0	0	0	1030
9B	097-59	0.0	0	0	1036

14 J. milligan
3/18/09 Former Land Fill
45° Clear Cal check of GEM 2000 w/span gas

Location	Well ID	CH4 %	LEL %	H2S PPM	Comment
SGM 10A	097-60	0.0	0	0	1040
10B	097-61	0.0	0	0	1046
11A	097-62	0.0	0	0	1050
11B	097-63	0.0	0	0	1056
12A	096-49	0.0	0	0	1059
12B	096-50	0.0	0	0	1110

RLM 3/5/09

15

7/30/09 — Former Landfill

Cal check at 6 PM 2000

83° Sunny 29.72" Hg

Location	Well ID	CH4 %	LEL %	H2S ppm	Comments
SGM 1A	096-41	0.0	0	0	1310
1B	096-42	0.0	0	0	1316
2A	096-43	0.0	0	0	1320
2B	096-44	0.0	0	0	1326
3A	096-45	0.0	0	0	1329 BGM
3B	096-46	0.0	0	0	1335 BGM
4A	096-47	0.0	0	0	1345
4B	096-48	0.0	0	0	1351
5A	097-50	0.0	0	0	1355
5B	097-51	0.0	0	0	1404
6A	097-52	0.0	0	0	1410
6B	097-53	0.0	0	0	1419
7A	097-54	0.0	0	0	1424
7B	097-55	0.0	0	0	1430
8A	097-56	0.0	0	0	1434
8B	097-57	0.0	0	0	1443
9A	097-58	0.0	0	0	1455
9B	097-59	0.0	0	0	1504

16

Former Landfill

7/30/09

83° Sunny 29.72" Hg

Location	Well ID	CH4 %	LEL %	H2S PPM	Comments
SGM 10A	097-60	0.0	0	0	1510
10B	097-61	0.0	0	0	1516
11A	097-62	0.0	0	0	1525
11B	097-63	0.0	0	0	1529
12A	096-49	0.0	0	0	1530
12B	096-50	0.0	0	0	1540

RH 11/6/09

(17)
12/17/09 JM

Former Landfill

Cal check of Gem 2000
35" Sum Cal 30.02 "Hg

Location	Well ID	CH_4 %	LEL %	H_2S PPM	Time / comment
SGM 1A	096-41	0.0	0	0	0820
1B	096-42	0.0	0	0	0827
2A	096-43	0	0	0	0831
2B	096-44	0	0	0	0840
3A	096-45	0	0	0	0844
3B	096-46	0	0	0	0850
4A	096-47	0	0	0	0854
4B	096-48	0	0	0	0900
5A	097-50	0	0	0	0905
5B	097-51	0	0	0	0913
6A	097-52	0	0	0	0919
6B	097-53	0	0	0	0926
7A	097-54	0	0	0	0935
7B	097-55	0	0	0	0942
8A	097-56	0	0	0	0947
8B	097-57	0	0	0	0955
9A	097-58	0	0	0	1005
9B	097-59	0	0	0	1010

(18)
12/17/09 JM

Former Landfill

Location	Well ID	CH_4 %	LEL %	H_2S PPM	Time / comment
SGM 10A	097-60	0	0	0	1030
10B	097-61	0	0	0	1039
11A	097-62	0	0	0	1040
11B	097-63	0	0	0	1050
12A	096-49	0	0	0	1055
12B	096-50	0	0	0	1110

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: 1-28-09

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

Time on Site: ___

Time off Site: ___

Weather Conditions: Cold

A. Inspection Checklist

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

B. Description of Further Action Requirements:

Location: Asphalt around Landfill

Observed Conditions: Cracks

Recommendations: Repair in Spring / Summer

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 2-26-09

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

Time on Site: ___

Time off Site: ___

Weather Conditions: cold/clear

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	**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: Asphalt around Landfill
Observed Conditions: Cracks/Broken

Recommendations: Repair in Spring/Summer

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 3-25-09

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:

Location: Asphalt around Landfill

Observed Conditions: Cracks / Broken

Recommendations: Repair in Summer / Spring

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 4-27-09

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

Time on Site: _____

Time off Site: _____

Weather Conditions: Clear / cool

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:

Location: Asphalt / Drainage Structures

Observed Conditions: Asphalt is cracked. Weeds and vegetation coming up through cracks. Vegetation growing in drainage structures

Recommendations: Repair Asphalt in summer. Put work-order in for sprayings of vegetation.

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 5-21-09

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

Time on Site: ___ ___

Time off Site: ___ ___

Weather Conditions: Sunny/Warm

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	✓				✓
	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:

Location: Asphalt/Drainage Structures

Observed Conditions: Asphalt cracking/Broken
Vegetation growing in Cracks/Drainage Structures

Recommendations: Vegetation spraying commenced on 5-16. Not enough time
To see if it had desired effect. Will re-Apply if Needed.
Asphalt will be repaired when vegetation is Gone

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 6-16-09
Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident
Time on Site: ___ ___
Time off Site: ___ ___
Weather Conditions: Sunny

A. Inspection Checklist

	Component	Observed Condition: Excellent	Fair	Poor	Further Action Required: 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:

Location: Asphalt/Drainage Structures
Observed Conditions: Some of the asphalt is broken and cracked. Vegetation Growing around Edge & Area and in drainage Structures
Recommendations: Repair asphalt Mow around edges, Spray Vegetation ~~is~~ Killer in drainage Structures as Needed

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 11-21-09

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

Time on Site: _____

Time off Site: _____

Weather Conditions: Sunny/Warm

A. Inspection Checklist

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

B. Description of Further Action Requirements:

Location: Asphalt

Observed Conditions: Cracks/Broken

Recommendations: Need to Repair

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kraft

Date of Inspection: 8-13-09

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

Time on Site: _____

Time off Site: _____

Weather Conditions: Cloudy

A. Inspection Checklist

	Component	Observed Condition: Excellent	Fair	Poor	Further Action Required: 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		X		✓	
	Crushed-Concrete Access Road		X		✓	

B. Description of Further Action Requirements:

Location: Asphalt Roads

Observed Conditions: Some Cracks/Broken asphalt

Recommendations: Will try to Get BNL Crew to fix

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 9-15-09
Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident
Time on Site: ___
Time off Site: ___
Weather Conditions: Sunny

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	✓				✓
	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: Asphalt
Observed Conditions: Some Cracks

Recommendations: Needs Repair in Spring.

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 10-20-09

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

Time on Site: ____

Time off Site: ____

Weather Conditions: Clear/warm

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:

Location: Asphalt Roads

Observed Conditions: Cracks in some areas

Recommendations: Needs repair in spring

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 11-18-09

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

Time on Site: ____

Time off Site: ____

Weather Conditions: Cloudy/Cool

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	✓				✓
	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:

Location: Asphalt

Observed Conditions: Cracks in Parts of Road

Recommendations: Repair Needed

BROOKHAVEN NATIONAL LABORATORY
CURRENT LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 12-21-09

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

Time on Site: _____

Time off Site: _____

Weather Conditions: Cool/Cloudy

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:

Location: Asphalt Roads

Observed Conditions: Some Cracking

Recommendations: Need Repair in Spring

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 1-28-09

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: _____

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 2-26-09

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

Time on Site: _____

Time off Site: _____

Weather Conditions: Cold

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	✓				✓
	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: _____

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 3-25-09

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: _____

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 4-27-09

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: Asphalt/Drainage Channels

Observed Conditions: Vegetation Starting To Grow

Recommendations: Will wait Another Month to better See All Vegatation that Needs to be Sprayed

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 5-19-09

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

Time on Site: _____

Time off Site: _____

Weather Conditions: _____

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	✓				✓
	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: Asphalt/Drainage Structures

Observed Conditions: Vegetation Growing through asphalt and in Drainage Structures

Recommendations: Will put work-order in for spraying.

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 6-16-09
Purpose of Inspection: X Routine ___ Heavy Rainfall ___ Reported Incident
Time on Site:
Time off Site:
Weather Conditions: Sunny

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	✓				✓
	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: Parts of the asphalt and in the drainage structures
Observed Conditions: Vegetation growing in both areas.

Recommendations: put in Work order to Spray Weed Killer on all unwanted Vegetation

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 7-21-09

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

Time on Site:

Time off Site:

Weather Conditions: Sunny/Warm

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	✓				✓
	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:

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 8-13-09

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

Time on Site:

Time off Site:

Weather Conditions: Cloudy

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:

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 9-15-09

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

Time on Site:

Time off Site:

Weather Conditions: Sunny

A. Inspection Checklist

Component		Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	✓				✓
	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:

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 10-20-09

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

Time on Site:

Time off Site:

Weather Conditions: Clear/warm

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:

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 11-18-09

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

Time on Site:

Time off Site:

Weather Conditions: Cloudy/Cool

A. Inspection Checklist

	Component	Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	✓				✓
	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:

BROOKHAVEN NATIONAL LABORATORY
FORMER LANDFILL AREA
SITE INSPECTION FORM

Name of Inspector(s): Eric Kramer

Date of Inspection: 12-21-09

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

Time on Site:

Time off Site:

Weather Conditions: Cloudy/Cool

A. Inspection Checklist

Component		Observed Condition			Further Action Required	
		Excellent	Fair	Poor	Yes	No
1.0	**Landfill Cap:**					
	Vegetation	✓				✓
	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:

BROOKHAVEN NATIONAL LABORATORY
LTRA SITE INSPECTION FORM

Location (AOC): Current Landfill and Wooded Wetland
Date of Inspection: 5/21/09
Name of Inspector(s): R. Howe, E. Kramer, T. Green, W. Dorsch, V. Racaniello, J. Burke, T. Kneitel
Purpose of Inspection: ☒ Routine (Scheduled Frequency of 2x/yr) ☐ Heavy Rainfall ☐ Reported Incident

A. Inspection Checklist

Component	Observed Condition: Excell.	Fair	Poor	Not Applic.	Further Action Req'd: Yes (describe)	No
1. Landfill Cap/Soil Covers/Wetlands:						
Vegetation (e.g. grass)	X					X
Soil (Cap/Cover/Fill)		X			Repair burrow areas	
Other:						
2. Drainage Structures:						
Standing Water	X				Water in Wood Wetland	X
Toe Drain	X					X
Drainage Channels	X				Remove few small trees	
French Drains/Outfalls				X		X
Subsurface Drainage Pipes/Outfalls	X					X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas	X					X
Other:						
3. Monitoring System:						
Soil Gas Wells	X				Weed whack for access	
Groundwater Wells	X				Weed whack for access	
Gas Vents	X					X
Other:						
4. Site Access:						
Asphalt Access Road		X			Seal cracks in roads	
Crushed-concrete Access Road	X					X
Fence	X					X
Gates/locks	X					X
Radiological Postings				X		X
Other: Access to cap			X		Make stairs over rip rap	

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

B. Description of Other Observations

Observed Conditions/Recommendations: Several small animal burrows were identified on the slopes, some up to 12" deep. They did not penetrate past the 24" protective soil layer. Grass cutting on slopes should continue to be suspended (except for path along outer edge near rip rap) bring careful not to tear netting. PE to remove weeds and seal the cracks in the asphalt road, remove small trees in the toe drain/cap edge, and drainage channels, and fill-in animal burrows. PE Work Order No. 742109 is in place to build stairs over rip rap to access cap safely [Note: Work was completed 6/1/09]. Wooded wetlands look fine with significant standing water. LUIC Factsheet Changes: Current Landfill, Under Engineered Controls, revise first sentence to say …impermeable geomembrane "and geotextile" fabric…

BROOKHAVEN NATIONAL LABORATORY
LTRA SITE INSPECTION FORM

Location (AOC): Former Landfill Area (includes the former and interim landfills, and slit trench)
Date of Inspection: 5/19/09
Name of Inspector(s): R. Howe, W. Dorsch, E. Kramer, C. Ogeka, T. Green, G. Goode, M. Davis, J. Allen
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			Remove small pines on edge of ST cap	
Soil (Cap/Cover/Fill)		X			Repair animal burrows	
Other:						
2. Drainage Structures:						
Standing Water	X				Little water in drains	X
Toe Drain	X					X
Drainage Channels		X			Small pines removed	
French Drains/Outfalls	X					X
Subsurface Drainage Pipes/Outfalls	X					X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas	X					X
Other:						
3. Monitoring System:						
Soil Gas Wells	X					X
Groundwater Wells	X					X
Gas Vents	X					X
Other:						
4. Site Access:						
Asphalt Access Road	X					X
Crushed-concrete Access Road	X					X
Fence				X		X
Gates/locks	X					X
Radiological Postings				X		X
Other: LUIC Sign	X					X

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

B. Description of Other Observations

Observed Conditions/Recommendations: Have PE remove/dig out small pine seedlings/roots on the edge of the cap of the Slit Trench and replace with topsoil. Repair several animal burrows on the west slope of the Former Landfill (see photos) and add netting/mesh, as appropriate. Cut grass 10 foot width around FLF perimeter. Under dry conditions, attempt to mow the entire landfill being careful to stop work if spongy conditions are encountered. Remove debris in drainage channel of Slit Trench. LUIC Factsheet Changes: Under Land Use Classification, first bullet, revise to say, Industrial and residential uses of the site are restricted due to buried contaminated materials.

BROOKHAVEN NATIONAL LABORATORY
LTRA SITE INSPECTION FORM

Location (AOC): Former Landfill Area (includes the former and interim landfills, and slit trench)
Date of Inspection: 11/10/09
Name of Inspector(s): R. Howe, J. Burke, D. Paquette, J. Allen
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					
Soil (Cap/Cover/Fill)	X				Filled in two small animal burrows	
Other:						
2. Drainage Structures:						
Standing Water	X				None	X
Toe Drain	X					X
Drainage Channels		X			Remove small pines SW	
French Drains/Outfalls	X					X
Subsurface Drainage Pipes/Outfalls	X					X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas	X					X
Other:						
3. Monitoring System:						
Soil Gas Wells	X					X
Groundwater Wells	X					X
Gas Vents	X					X
Other:						
4. Site Access:						
Asphalt Access Road	X					X
Crushed-concrete Access Road	X					X
Fence				X		X
Gates/locks	X					X
Radiological Postings				X		X
Other: LUIC Sign	X				Add another sign	X

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

B. Description of Other Observations

Observed Conditions/Recommendations: Have PE remove/dig out small pine seedlings/roots in the west and south west drainage channels. Identified and filled-in two animal burrows on the west slope of the Former Landfill. Have PE cut grass 10 foot width around FLF perimeter. Under dry conditions, attempt to mow the entire landfill being careful to stop work if spongy conditions are encountered. Remove debris in drainage channel of Slit Trench. LUIC Factsheet Changes: Under Land Use Classification, first bullet, revise to say, Industrial and residential uses of the site are restricted due to buried contaminated materials. Add web link for OU I ROD.

BROOKHAVEN NATIONAL LABORATORY
LTRA SITE INSPECTION FORM

Location (AOC): Current Landfill and Wooded Wetland
Date of Inspection: 12/2/09
Name of Inspector(s): R. Howe, E. Kramer, W. Dorsch, V. Racaniello, D. Paquette, J. Young
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				Removed some pines	X
Soil (Cap/Cover/Fill)		X			Filled in inactive burrows	X
Other:						
2. Drainage Structures:						
Standing Water	X				Water in Wood Wetland	X
Toe Drain	X					X
Drainage Channels	X				Remove few small pines	
French Drains/Outfalls				X		X
Subsurface Drainage Pipes/Outfalls	X					X
Manholes				X		X
Berms				X		X
Roof Drains				X		X
Recharge Areas	X					X
Other:						
3. Monitoring System:						
Soil Gas Wells	X				Good access	X
Groundwater Wells	X				Good access	X
Gas Vents	X					X
Other:						
4. Site Access:						
Asphalt Access Road		X			Seal cracks in roads	
Crushed-concrete Access Road	X					X
Fence	X					X
Gates/locks	X				Sign off SE gate	
Radiological Postings				X		X
Other: Access to cap	X				Stairs over rip rap complete	X

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

B. Description of Other Observations

Observed Conditions/Recommendations: A few shallow inactive animal burrows were identified on the slopes and immediately filled-in. Grass cutting on slopes should continue to be suspended (except for path along outer edge near rip rap) bring careful not to tear netting. PE to remove small pine trees/weeds in the toe drain/cap edge and drainage channels, and seal the cracks in the asphalt road. LUIC access sign found on ground near the SE gate [Rehung on gate 12/3/09]. Wooded wetlands look fine with significant standing water. LUIC Factsheet Changes: Current Landfill, Under Remedial Action and Engineered Controls, revise to say …impermeable geomembrane "and geotextile" fabric…

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	55.9
SGMW-05A	50.1	49.4	46.5	52
SGMW-05B	50.9	47.5	42	53.7
SGMW-05C	48.7	46.9	30.4	51.6
SGMW-06A	40.1	44.2	0.8	0
SGMW-06B	44	46	41.9	0
SGMW-06C	45.2	46.7	42	0
SGMW-07A	8.6	10.4	14.5	6.2
SGMW-07B	76	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	2.8
SGMW-09B	1.2	0	0	6.7
SGMW-09C	2.5	0.3	0	5.8
SGMW-10A	16.7	22.8	23	22.7
SGMW-10B	16.6	14.3	15.8	32.5
SGMW-10C	14	18.2	11.4	29.2
SGMW-11A	16.4	26.8	23.5	39.3
SGMW-11B	15.7	25.6	25	29.6
SGMW-12A	57.5	0	36.9	57.2
SGMW-12B	51.3	0	32.3	55.7
SGMW-13A	46.3	0	18.7	0
SGMW-13B	47.5	0	26	0
SGMW-14A	34.9	0	18.2	38.6
SGMW-14B	41.4	44.2	16	0
SGMW-15A	0	0.6	3.6	3.4
SGMW-15B	12.7	0	0	0
SGMW-16A	0	0	0	0
SGMW-16B	0	0	0.7	0
SGMW-17A	0	0	0	0
SGMW-17B	0	0	0	0
SGMW-18A	8.6	0	0	7.1
SGMW-18B	0.6	0	0	0
SGMW-19A	40.8	29	16	52.5
SGMW-19B	36.7	30.1	6.9	46.5
GSGM-1A	NA	◇	0	◇
GSGM-1B	NA	◇	0	◇
GSGM-1C	NA	◇	0	◇
GSGM-2A	NA	0	0	◇
GSGM-2B	NA	0	0	◇
GSGM-2C	NA	0	0	◇
GSGM-3A	NA	0	◇	◇
GSGM-3B	NA	0	0	◇
GSGM-4A	NA	0	0	◇
GSGM-4B	NA	0	0	◇

◇ No measurement was recorded.

NA Well was not yet installed.

1997 CURRENT LANDFILL SOIL GAS MONITORING SUMMARY TABLE

1998 Environmental Monitoring Report

Current and Former Landfills - Brookhaven National Laboratory

Soil Gas Monitoring Well	Methane (% By Volume)			Hydrogen sulfide (ppm By Volume)		
	March-97	August-97	November-97	March-97	August-97	November-97
SGMW-01A	33.4	17.1	16.4	5	5	8
SGMW-01B	32.5	17.2	15.8	1	4	7
SGMW-01C	34.2	15.9	14.5	1	0	1
SGMW-02A	62.4	47.7	53.2	40	39	137
SGMW-02B	64.7	57	56.7	9	17	43
SGMW-02C	62.6	56.6	55.6	2	0	0
SGMW-03A	65.2	55.7	52.2	3	24	15
SGMW-03B	67.5	55.8	57	7	5	9
SGMW-03C	62.5	55.8	57	3	6	7
SGMW-04A	57.6	53.9	52.5	6	52	6
SGMW-04B	58.2	52.5	55.8	7	29	25
SGMW-04C	58.2	52.5	54.5	6	14	15
SGMW-05A	55.2	47.5	50.5	6	44	29
SGMW-05B	54.4	43.3	45.5	10	21	20
SGMW-05C	53.6	37.5	38.7	3	1	2
SGMW-06A	42.6	44	42.9	7	33	3
SGMW-06B	45	43.5	44.4	10	16	17
SGMW-06C	46	42	43.1	7	13	15
SGMW-07A	10.1	2.3	0	3	0	0
SGMW-07B	8.8	0	0	5	0	6
SGMW-07C	9.9	4.1	0.2	3	0	9
SGMW-08A	0	0	0	1	0	5
SGMW-08B	0	0	0	0	0	9
SGMW-08C	0	0	0	0	0	10
SGMW-09A	0.3	0	0	0	0	15
SGMW-09B	3.4	0	0	0	0	14
SGMW-09C	4.6	0.8	1	0	0	12
SGMW-10A	20.5	28	19	1	19	13
SGMW-10B	19.8	24.5	24	1	0	5
SGMW-10C	0	21.7	20.6	0	0	18
SGMW-11A	24.3	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.

Brookhaven National Laboratory

1998 Landfills 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	25.3	28.1	24.2	20.4	5	0	0	0	SGMW-01A
SGMW-01B	25.1	30.1	28	19.7	4	0	0	4	SGMW-01B
SGMW-01C	24	29	25	17.7	1	2	1	2	SGMW-01C
SGMW-02A	67.6	65.3	70.4	51.1	92	3	4	8	SGMW-02A
SGMW-02B	64.1	66	66	54.9	93	5	5	4	SGMW-02B
SGMW-02C	61.6	64.7	65	53.1	11	0	0	0	SGMW-02C
SGMW-03A	20.4	80	78.6	2.5	10	3	2	1	SGMW-03A
SGMW-03B	76.6	74	74	51.1	23	0	0	0	SGMW-03B
SGMW-03C	65.3	65.5	65.3	41.5	4	3	0	1	SGMW-03C
SGMW-04A	11.3	54.2	55	0.4	9	7	4	0	SGMW-04A
SGMW-04B	58.9	55.8	58	36.1	5	4	3	0	SGMW-04B
SGMW-04C	60.6	57.6	57.6	0	17	6	2	0	SGMW-04C
SGMW-05A	48.1	52.4	50	48.9	3	5	5	2	SGMW-05A
SGMW-05B	54	52.1	55.4	47.7	3	4	3	3	SGMW-05B
SGMW-05C	49	50.3	48	41.5	0	3	2	0	SGMW-05C
SGMW-06A	27.3	44.1	38.3	17.6	2	7	8	0	SGMW-06A
SGMW-06B	44.8	46.5	7.8	47.2	15	0	0	1	SGMW-06B
SGMW-06C	46.3	48	6.4	0	0	0	3	0	SGMW-06C
SGMW-07A	2.2	8.9	7.2	0	0	3	4	0	SGMW-07A
SGMW-07B	0	8.6	7	0	0	4	3	0	SGMW-07B
SGMW-07C	4.9	8.5	8.5	0.1	1	8	8	0	SGMW-07C
SGMW-08A	0	0	0	0	2	0	0	0	SGMW-08A
SGMW-08B	0	0	0	0	3	3	3	0	SGMW-08B
SGMW-08C	0	0	0	0	4	1	1	0	SGMW-08C
SGMW-09A	0	0	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0.7	1.4	1.3	0	2	0	0	0	SGMW-09B
SGMW-09C	3	2.7	2.5	0.7	5	2	1	0	SGMW-09C
SGMW-10A	17.9	29.7	30	29.2	0	0	0	0	SGMW-10A
SGMW-10B	23.5	26.4	28.3	26	2	0	0	0	SGMW-10B
SGMW-10C	20.7	24	23	23.7	0	0	0	0	SGMW-10C
SGMW-11A	22.8	31	28.4	17.8	16	0	0	0	SGMW-11A
SGMW-11B	19.9	29	25.3	25.4	9	0	0	0	SGMW-11B
SGMW-12A	53.7	57.2	60.4	33.9	37	2	1	3	SGMW-12A
SGMW-12B	50.3	0.2	3	38.2	11	3	4	0	SGMW-12B
SGMW-13A	7	61.5	59	0	9	0	0	0	SGMW-13A
SGMW-13B	0.1	0.1	0	0	9	0	0	0	SGMW-13B
SGMW-14A	17.1	21	20	1.2	0	1	2	0	SGMW-14A
SGMW-14B	0	0	15	0	0	0	2	0	SGMW-14B
SGMW-15A	4	1.2	0	0	5	0	0	0	SGMW-15A
SGMW-15B	0	0	0.7	0	0	0	0	0	SGMW-15B
SGMW-16A	0	0	0	0	0	0	0	0	SGMW-16A
SGMW-16B	0	0	0	0	0	1	0	0	SGMW-16B
SGMW-17A	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17B	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0.2	0	0	0	0	0	2	0	SGMW-18A
SGMW-18B	0	0	0	0	0	0	0	0	SGMW-18B
SGMW-19A	37.4	47.2	30.4	6.7	68	0	0	1	SGMW-19A
SGMW-19B	38.7	4	4	12	5	1	1	4	SGMW-19B

Soil Gas Monitoring Well	Methane (% By Volume) February-98	Methane (% By Volume) May-98	Methane (% By Volume) August-98	Methane (% By Volume) December-98
GSGM-1A	0	0	0	0
GSGM-1B	0	0	0	0
GSGM-1C	0	0	0	0
GSGM-2A	0	0	0	0
GSGM-2B	0	0	20.1	0
GSGM-2C	0	0	0	0
GSGM-3A	0	0	0	0
GSGM-3B	0	0	0	0
GSGM-4A	0	0	0	0
GSGM-4B	0	0	0	0

Hydrogen sulfide (ppm By Volume) February-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
0	0	0	0	GSGM-1A
1	0	0	0	GSGM-1B
0	0	0	0	GSGM-1C
0	0	0	0	GSGM-2A
0	0	1	0	GSGM-2B
2	0	0	0	GSGM-2C
0	0	0	0	GSGM-3A
0	0	0	0	GSGM-3B
0	0	0	0	GSGM-4A
2	0	0	0	GSGM-4B

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

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

Soil Gas Monitoring Well	Methane (% By Volume) June-99	Methane (% By Volume) October-99	Methane (% By Volume) December-99	LEL (% By Volume) June-99	LEL (% By Volume) October-99	LEL (% By Volume) December-99	Hydrogen sulfide (ppm By Volume) June-99	Hydrogen sulfide (ppm By Volume) October-99	Hydrogen sulfide (ppm By Volume) December-99	Soil Gas Monitoring Well
SGMW-01A	19.5	17.9	19.8	390	360	394	0	<>	2	SGMW-01A
SGMW-01B	18.6	16.1	18.6	370	362	372	0	<>	3	SGMW-01B
SGMW-01C	17.2	14.2	16.7	344	286	334	0	<>	1	SGMW-01C
SGMW-02A	52.4	52.8	55.8	1048	1052	1116	13	<>	26	SGMW-02A
SGMW-02B	54.4	55	58.7	1088	1100	1134	3	<>	11	SGMW-02B
SGMW-02C	55.3	55.2	57.5	1108	1104	1150	0	<>	3	SGMW-02C
SGMW-03A	59.6	41.5	2.3	1192	830	50	3	<>	1	SGMW-03A
SGMW-03B	61.4	58.3	61.3	1228	1166	1228	0	<>	4	SGMW-03B
SGMW-03C	59.9	53.3	59.5	1196	1066	1190	0	<>	3	SGMW-03C
SGMW-04A	53.8	0	39.1	1076	0	782	0	<>	2	SGMW-04A
SGMW-04B	53.5	53.5	52.8	1070	1070	1056	0	<>	7	SGMW-04B
SGMW-04C	52.4	55.2	48.7	1048	1104	974	2	<>	9	SGMW-04C
SGMW-05A	47.8	51.1	47.4	940	1022	944	0	<>	6	SGMW-05A
SGMW-05B	45	51.5	48	900	1030	984	0	<>	4	SGMW-05B
SGMW-05C	39.7	35	38.3	794	702	768	0	<>	4	SGMW-05C
SGMW-06A	41.1	0.1	39.2	828	2	784	0	<>	2	SGMW-06A
SGMW-06B	43.2	43.2	46.8	862	862	934	0	<>	7	SGMW-06B
SGMW-06C	43.1	0	46.8	862	0	926	0	<>	6	SGMW-06C
SGMW-07A	3.3	0.1	0	66	2	0	0	<>	2	SGMW-07A
SGMW-07B	0.9	0	0	18	0	0	0	<>	2	SGMW-07B
SGMW-07C	4.4	0.17	1.3	88	34	26	0	<>	2	SGMW-07C
SGMW-08A	0	0	0	0	0	0	0	<>	2	SGMW-08A
SGMW-08B	0	0	0	0	0	0	0	<>	2	SGMW-08B
SGMW-08C	0	0	0	0	0	0	0	<>	3	SGMW-08C
SGMW-09A	0	0	0	0	0	0	0	<>	3	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	<>	3	SGMW-09B
SGMW-09C	0	0	0.1	0	0	2	<>	<>	3	SGMW-09C
SGMW-10A	21.4	16.7	20	428	314	400	1	<>	2	SGMW-10A
SGMW-10B	19.6	26.7	21.1	398	532	420	0	<>	3	SGMW-10B
SGMW-10C	17.8	22.8	16.1	356	464	324	0	<>	3	SGMW-10C
SGMW-11A	19.3	31.2	19.8	386	624	396	0	<>	3	SGMW-11A
SGMW-11B	19.2	25.6	14.8	384	512	294	10	<>	3	SGMW-11B
SGMW-12A	46.8	45.1	47.1	936	902	942	30	<>	9	SGMW-12A
SGMW-12B	44.2	46.5	47.8	884	930	954	5	<>	3	SGMW-12B
SGMW-13A	53.1	0.1	0	1062	2	0	12	<>	0	SGMW-13A
SGMW-13B	0.2	0.2	24.6	4	4	492	0	<>	2	SGMW-13B
SGMW-14A	7.6	5.9	7.1	152	118	142	0	<>	5	SGMW-14A
SGMW-14B	0	22.8	3.4	0	452	68	0	<>	2	SGMW-14B
SGMW-15A	0	1.6	2.9	0	32	58	0	<>	3	SGMW-15A
SGMW-15B	0	0.1	0	0	2	0	0	<>	2	SGMW-15B
SGMW-16A	0	0.1	0	0	2	0	0	<>	2	SGMW-16A
SGMW-16B	0	0.1	0	0	2	0	0	<>	2	SGMW-16B
SGMW-17A	screen in water table	0.1	0	<>	2	0	<>	<>	2	SGMW-17A
SGMW-17B	screen in water table	0.1	0	<>	2	0	<>	<>	2	SGMW-17B
SGMW-18A	0	0.1	0	0	2	0	0	<>	2	SGMW-18A
SGMW-18B	0	1	0.4	0	20	8	0	<>	1	SGMW-18B
SGMW-19A	25.1	23	20.3	502	460	406	16	<>	15	SGMW-19A
SGMW-19B	30.1	27.3	20.5	602	544	410	8	<>	12	SGMW-19B

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

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

<> No measurement was recorded.

2000 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) February-00	Methane (% By Volume) June-00	Methane (% By Volume) September-00	Methane (% By Volume) December-00	LEL (% By Volume) February-00	LEL (% By Volume) June-00	LEL (% By Volume) September-00	LEL (% By Volume) December-00	Hydrogen Sulfide (ppm by volume) February-00	Hydrogen Sulfide (ppm by volume) June-00	Hydrogen Sulfide (ppm by volume) September-00	Hydrogen Sulfide (ppm by volume) December-00	Soil Gas Monitoring Well
SGMW-01A	20.0	20.5	21.0	19.9	402	410	422	398	0	0	4	0	SGMW-01A
SGMW-01B	19.3	20.3	11.2	14.3	386	406	222	286	1	0	1	0	SGMW-01B
SGMW-01C	17.5	13.7	11.5	13.0	350	276	230	260	0	0	1	0	SGMW-01C
SGMW-02A	49.5	54.0	50	54.4	990	(1080)	(1000)	(1088)	1	3	2	16	SGMW-02A
SGMW-02B	55.1	57.1	56.3	56.2	(1102)	(1142)	(1120)	(1124)	4	20	8	11	SGMW-02B
SGMW-02C	56.0	46.3	56.9	56.0	(1120)	886	(1120)	(1120)	2	0	4	5	SGMW-02C
SGMW-03A	49.3	62.8	64.0	57.5	986	(1256)	(1280)	(1152)	1	8	0	3	SGMW-03A
SGMW-03B	57.0	67.0	60.2	57.4	(1140)	(1340)	(1200)	(1148)	1	4	0	2	SGMW-03B
SGMW-03C	57.3	61.2	62.0	58.7	(1146)	(1224)	(1240)	(1134)	1	4	0	4	SGMW-03C
SGMW-04A	30.7	51.9	2.0	51.6	614	(1038)	52	(1132)	1	4	1	1	SGMW-04A
SGMW-04B	48.9	52.6	48.0	50.0	978	(1058)	922	(1000)	2	2	0	2	SGMW-04B
SGMW-04C	43.0	52.1	43.0	45.2	860	(1042)	858	900	4	0	1	8	SGMW-04C
SGMW-05A	47.7	48.4	47.6	47.2	954	966	950	944	1	0	8	8	SGMW-05A
SGMW-05B	44.6	50.0	48.2	43.9	892	(1000)	964	878	1	0	6	6	SGMW-05B
SGMW-05C	36.7	43.7	40.7	38.7	734	874	814	736	2	1	0	6	SGMW-05C
SGMW-06A	33.0	41.7	16.0	44.0	660	834	320	880	0	4	0	2	SGMW-06A
SGMW-06B	43.0	45.5	40.9	46.0	860	910	800	920	1	2	2	3	SGMW-06B
SGMW-06C	44.3	46.3	33.7	45.8	886	906	674	916	0	1	1	6	SGMW-06C
SGMW-07A	0.3	5.9	0.9	0.0	0	118	18	0	0	0	1	1	SGMW-07A
SGMW-07B	0	0.6	0.0	0.0	0	12	0	0	0	0	1	2	SGMW-07B
SGMW-07C	2.6	3.0	1.9	0.6	52	60	38	10	0	0	2	2	SGMW-07C
SGMW-08A	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-08A
SGMW-08B	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-08B
SGMW-08C	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-08C
SGMW-09A	0	0	0	0.0	0	0	0	0	1	0	1	3	SGMW-09A
SGMW-09B	0	0	0	0.0	0	0	0	0	1	0	1	3	SGMW-09B
SGMW-09C	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-09C
SGMW-10A	9.3	26.1	23.7	17.0	186	522	474	340	1	3	2	3	SGMW-10A
SGMW-10B	13.5	21.2	26.1	16.6	270	424	522	310	1	0	2	2	SGMW-10B
SGMW-10C	10.6	19.5	22.2	12.8	212	390	444	256	1	0	2	3	SGMW-10C
SGMW-11A	10.1	27.1	64.6	13.6	202	342	(1080)	272	2	20	10	7	SGMW-11A
SGMW-11B	6.8	26.4	54.3	9.2	136	526	(1086)	184	2	21	2	8	SGMW-11B
SGMW-12A	43.9	60.0	64.4	48.5	878	(1200)	(1288)	930	2	63	2	7	SGMW-12A
SGMW-12B	42.6	49.9	48.1	47.0	852	998	962	940	1	0	0	6	SGMW-12B
SGMW-13A	23.4	57.6	63.8	49.6	468	(1152)	(1278)	998	1	0	2	2	SGMW-13A
SGMW-13A	45.1	0	0	48.2	902	0	0	964	1	0	0	67	SGMW-13A
SGMW-14A	2.7	20.2	15.8	12.1	54	404	316	242	1	0	0	7	SGMW-14A
SGMW-14B	0	0	0	22.3	0	0	0	446	1	0	0	31	SGMW-14B
SGMW-15A	2.0	0	1.6	0.0	40	0	32	0	2	0	2	4	SGMW-15A
SGMW-15B	0	0	0	0.0	0	0	0	0	2	0	0	5	SGMW-15B
SGMW-16A	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-16A
SGMW-16B	0	0	0	0.0	0	0	0	0	0	0	0	2	SGMW-16B
SGMW-17A	0	0	0	0.0	0	0	0	0	1	0	0	1	SGMW-17A
SGMW-17B	0	0	0	0.0	0	0	0	0	1	0	0	3	SGMW-17B
SGMW-18A	0	0	0	0.0	0	0	0	0	0	0	0	2	SGMW-18A
SGMW-18B	0	0.1	0.3	0.0	0	2	8	0	0	0	0	4	SGMW-18B
SGMW-19A	12.9	38.9	34.9	14.2	256	778	698	284	4	2	16	13	SGMW-19A
SGMW-19B	18.7	34.6	32.8	10.0	374	692	656	200	4	0	0	4	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	0	0	0	1	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	0	0	0	1	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	0	0	0	1	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	0	0	0	1	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	0	0	0	4	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	0	0	0	3	GSGM-4B

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

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

Soil Gas Monitoring Well	Methane (% By Volume) March-01	Methane (% By Volume) June-01	Methane (% By Volume) September-01	LEL (% By Volume) March-01	LEL (% By Volume) June-01	LEL (% By Volume) September-01	Hydrogen Sulfide (ppm by volume) March-01	Hydrogen Sulfide (ppm by volume) June-01	Hydrogen Sulfide (ppm by volume) September-01
SGMW-01A	22.2	23.1	18.3	440	462	366	2	11	0
SGMW-01B	2.8	0.0	17.1	434	0	364	4	0	0
SGMW-01C	16.3	20.4	15.3	306	408	306	0	0	0
SGMW-02A	69.9	52.9	57.9	1209	1056	>1,000	140	57	49
SGMW-02B	56.9	0.0	55.3	1188	0	>1,000	101	1	0
SGMW-02C	0.0	0.0	53.2	0	0	>1,000	1	0	0
SGMW-03A	39.9	51.8	62.9	780	1158	>1,000	5	14	43
SGMW-03B	67.2	66.5	64.7	1344	1330	>1,000	28	21	0
SGMW-03C	0.2	0.0	60.5	4	0	>1,000	1	2	0
SGMW-04A	42.9	3.8	62.8	858	78	>1,000	2	4	32
SGMW-04B	50.8	53.6	62.8	1016	1072	>1,000	3	15	14
SGMW-04C	0.0	0.2	60.9	0	4	>1,000	1	2	0
SGMW-05A	46.6	48.2	57.5	912	964	>1,000	3	2	0
SGMW-05B	43.9	0.2	52.8	878	4	>1,000	2	3	0
SGMW-05C	0.0	0.1	46.3	0	2	908	2	3	0
SGMW-06A	18.4	6.3	54.4	366	126	>1,000	3	4	84
SGMW-06B	0.0	0.2	53.9	0	4	>1,000	2	4	5
SGMW-06C	0.0	0.1	52.8	0	2	>1,000	2	3	0
SGMW-07A	0.6	5.1	0.2	12	102	4	4	0	0
SGMW-07B	0	0.3	0.2	0	6	4	2	3	0
SGMW-07C	0.9	0.0	1.1	18	0	24	3	1	0
SGMW-08A	0	0	.2	0	0	4	4	1	0
SGMW-08B	0	0	.2	0	0	4	2	2	0
SGMW-08C	0	0	.3	0	0	8	2	1	0
SGMW-09A	0	.2	0	0	4	0	1	3	0
SGMW-09B	0	.2	0	0	4	0	1	2	0
SGMW-09C	0	.2	0	0	4	0	0	6	0
SGMW-10A	10.0	18.0	28.8	216	338	590	4	2	0
SGMW-10B	11.2	18.9	25.6	224	378	512	2	3	0
SGMW-10C	8.0	13.2	18.9	160	264	378	2	2	0
SGMW-11A	8.9	21.5	28.3	178	430	566	18	43	2
SGMW-11B	6.1	19.3	28.0	122	386	560	0	27	38
SGMW-12A	49.6	53.4	53.7	990	1068	1074	1	95	188
SGMW-12B	44.4	0.2	50.1	886	4	1002	3	0	101
SGMW-13A	18.3	65.1	55.7	328	1302	1114	0	5	0
SGMW-13A	8.9	.2	0	18	4	0	0	2	0
SGMW-14A	17.4	6.2	7.4	348	124	150	0	4	0
SGMW-14B	0	0	0	0	0	0	0	3	0
SGMW-15A	0.0	.3	0.0	0	6	0	2	4	0
SGMW-15B	0	0	0	0	0	0	2	0	0
SGMW-16A	0	0	0	0	0	0	1	0	0
SGMW-16B	0	0	0	0	0	0	0	4	0
SGMW-17A	0	0	0	0	0	0	0	1	0
SGMW-17B	0	0	0	0	0	0	0	0	0
SGMW-18A	0	0	0	0	0	0	0	1	0
SGMW-18B	0	0	0.0	2	0	0	0	0	0
SGMW-19A	21.9	36.2	26.8	238	784	572	3	200	0
SGMW-19B	20.3	36.8	26.1	406	736	624	6	63	0
GSGM-1A	0	0	0	0	0	0	0	0	0
GSGM-1B	0	0	0	0	0	0	0	0	0
GSGM-1C	0	0	0	0	0	0	0	0	0
GSGM-2A	0	0	0	0	0	0	1	0	0
GSGM-2B	0	0	0	0	0	0	0	0	0
GSGM-2C	0	0	0	0	0	0	1	0	0
GSGM-3A	0	0	0	0	0	0	0	0	0
GSGM-3B	0	0	0	0	0	0	0	0	0
GSGM-4A	0	0	0	0	0	0	1	0	0
GSGM-4B	0	0	0	0	0	0	0	0	0

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

2002 Current Landfill Soil Gas Monitoring Summary

Soil Gas Monitoring Well	Methane (% By Volume) March-02	Methane (% By Volume) June-02	Methane (% By Volume) Sept-02, Oct-02	Methane (% By Volume) December-02	LEL (% By Volume) March-02	LEL (% By Volume) June-02	LEL (% By Volume) Sept-02, Oct-02	LEL (% By Volume) December-02	Hydrogen Sulfide (ppm by volume) March-02	Hydrogen Sulfide (ppm by volume) June-02	Hydrogen Sulfide (ppm by volume) Sept-02, Oct-02	Hydrogen Sulfide (ppm by volume) December-02	Soil Gas Monitoring Well
SGMW-01A	13.6	14.1	9.6	18.0	276	282	192	354	0	7	10	3	SGMW-01A
SGMW-01B	13.7	11.5	8.2	16.9	274	230	164	334	0	1	2	14	SGMW-01B
SGMW-01C	10.8	8.6	5.5	11.6	216	172	110	234	0	1	1	4	SGMW-01C
SGMW-02A	48.0	49.6	46.2	56.5	920	992	964	(1130)	54	132	141	0	SGMW-02A
SGMW-02B	17.1	28.5	34.6	43.2	342	570	692	864	0	2	8	40	SGMW-02B
SGMW-02C	37.6	43.8	52.0	51.7	750	878	(1040)	(1034)	0	24	68	77	SGMW-02C
SGMW-03A	36.5	53.6	54.1	41.4	730	(1072)	(1082)	828	6	148	0	15	SGMW-03A
SGMW-03B	57.0	62.4	59.6	65.9	(1140)	(1248)	(1192)	(1318)	13	18	34	12	SGMW-03B
SGMW-03C	54.1	58.6	58.9	60.0	(1062)	(1172)	(1178)	(1200)	0	6	26	6	SGMW-03C
SGMW-04A	40.8	46.9	50.6	48.1	816	938	(1016)	960	0	1	20	3	SGMW-04A
SGMW-04B	44.9	49.0	51.3	19.2	898	980	(1026)	992	2	11	76	37	SGMW-04B
SGMW-04C	36.6	43.5	44.4	42.5	730	870	888	844	25	38	32	38	SGMW-04C
SGMW-05A	39.1	38.6	38.8	42.6	782	772	776	850	6	44	2	34	SGMW-05A
SGMW-05B	37.4	38.4	42.0	41.2	738	768	840	838	1	13	53	20	SGMW-05B
SGMW-05C	29.0	31.0	31.6	34.2	678	620	632	884	8	10	13	12	SGMW-05C
SGMW-06A	30.7	33.6	40.0	41.6	618	672	800	832	2	3	37	2	SGMW-06A
SGMW-06B	36.1	35.8	40.6	43.1	712	716	812	864	11	22	62	22	SGMW-06B
SGMW-06C	36.3	35.2	38.1	42.6	722	704	762	848	8	10	21	12	SGMW-06C
SGMW-07A	0.2	0.4	0.0	0.0	4	8	0	0	0	1	2	2	SGMW-07A
SGMW-07B	0.2	0.0	0.0	0.0	4	0	0	0	0	1	0	1	SGMW-07B
SGMW-07C	0.2	1.2	0.0	0.0	4	24	0	0	0	1	0	2	SGMW-07C
SGMW-08A	0.2	0	0	0.0	4	0	0	0	1	3	0	0	SGMW-08A
SGMW-08B	0.2	0	0	0.0	4	0	0	0	1	4	0	0	SGMW-08B
SGMW-08C	0.2	0	0	0.0	4	0	0	0	0	3	0	0	SGMW-08C
SGMW-09A	0.1	0	0	0.0	2	0	0	0	0	2	2	2	SGMW-09A
SGMW-09B	0.2	0	0	0.0	4	0	0	0	1	0	1	1	SGMW-09B
SGMW-09C	0.2	0	0	0.0	4	0	0	0	1	2	0	2	SGMW-09C
SGMW-10A	10.6	15.0	25.5	16.8	212	300	510	336	4	13	1	8	SGMW-10A
SGMW-10B	10.7	14.2	20.0	14.8	214	284	400	292	0	0	5	2	SGMW-10B
SGMW-10C	8.0	12.2	17.1	12.2	160	244	342	248	0	3	1	0	SGMW-10C
SGMW-11A	8.2	14.9	26.7	17.0	164	298	534	338	0	68	125	29	SGMW-11A
SGMW-11B	6.1	14.5	24.7	10.4	122	290	494	208	1	48	152	16	SGMW-11B
SGMW-12A	37.6	43.0	60.4	49.0	752	860	1006	976	15	0	0	34	SGMW-12A
SGMW-12B	35.9	38.0	46.0	45.0	718	760	920	894	4	13	32	15	SGMW-12B
SGMW-13A	35.6	43.5	47.3	47.9	710	870	946	958	83	156	76	3	SGMW-13A
SGMW-13B	33.7	42.3	46.2	47.1	674	846	924	942	2	4	22	5	SGMW-13A
SGMW-14A	1.0	4.9	2.8	10.6	20	98	56	212	2	2	0	7	SGMW-14A
SGMW-14B	5.6	11.0	10.4	14.8	112	220	208	296	1	3	0	1	SGMW-14B
SGMW-15A	0.1	0	4.0	8.3	2	0	80	168	0	3	4	4	SGMW-15A
SGMW-15B	0.1	0	44.6	19.1	2	0	890	376	0	4	9	35	SGMW-15B
SGMW-16A	0	0	0.1	0.0	0	0	2	0	0	3	0	1	SGMW-16A
SGMW-16B	0.1	0	0.1	0.0	2	0	2	0	0	4	4	1	SGMW-16B
SGMW-17A	0.1	0	0.2	0.0	2	0	4	0	0	3	3	2	SGMW-17A
SGMW-17B	0.1	0	0.2	0.0	2	0	4	0	0	2	2	4	SGMW-17B
SGMW-18A	0.2	0	0.1	0.0	4	0	2	0	0	4	4	2	SGMW-18A
SGMW-18B	0.4	0	0.2	0.0	8	0	4	0	0	3	3	4	SGMW-18B
SGMW-19A	5.8	15.9	28.5	0.0	116	316	570	0	2	121	19	132	SGMW-19A
SGMW-19B	8.5	19.6	31.2	0.0	166	392	624	0	4	32	36	8	SGMW-19B
GSGM-1A	0	0	0	0	0	0	0	0	8	3	1	4	GSGM-1A
GSGM-1B	0	0	0	0	0	0	0	0	4	2	2	3	GSGM-1B
GSGM-1C	0	0	0	0	0	0	0	0	3	3	2	3	GSGM-1C
GSGM-2A	0	0	0	0	0	0	0	0	3	1	3	2	GSGM-2A
GSGM-2B	0	0	0	0	0	0	0	0	3	3	1	2	GSGM-2B
GSGM-2C	0	0	0	0	0	0	0	0	4	3	2	3	GSGM-2C
GSGM-3A	0	0	0	0	0	0	0	0	3	3	1	3	GSGM-3A
GSGM-3B	0	0	0	0	0	0	0	0	2	2	0	2	GSGM-3B
GSGM-4A	0	0	0	0	0	0	0	0	4	3	1	3	GSGM-4A
GSGM-4B	0	0	0	0	0	0	0	0	2	2	2	2	GSGM-4B

Measurements in ( ) are calculated, not measured

2003 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) April-03	Methane (% By Volume) July-03	Methane (% By Volume) October-03	Methane (% By Volume) December-03	LEL (% By Volume) April-03	LEL (% By Volume) July-03	LEL (% By Volume) October-03	LEL (% By Volume) December-03	Hydrogen Sulfide (ppm by volume) April-03	Hydrogen Sulfide (ppm by volume) July-03	Hydrogen Sulfide (ppm by volume) October-03	Hydrogen Sulfide (ppm by volume) December-03	Soil Gas Monitoring Well
SGMW-01A	17.6	22.1	21.1	21.5	352	444	422	430	2	-	0	-	SGMW-01A
SGMW-01B	16.6	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	346	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	598	0	0	858	0	-	0	-	SGMW-02C
SGMW-03A	28.8	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	-	65	-	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	988	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	54.0	23.4	968	960	(1096)	468	2	-	183	-	SGMW-05A
SGMW-05B	46.9	43.8	53.8	38.8	938	876	(1078)	776	3	-	0	-	SGMW-05B
SGMW-05C	43.1	0.0	41.8	32.3	862	0	838	646	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	898	3	-	0	-	SGMW-06B
SGMW-06C	43.6	0.0	0.1	44.6	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	0	0	0	-	13	-	SGMW-09A
SGMW-09B	0	0	0	0.0	0	0	2	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	16.2	0.0	280	332	384	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	0.0	0.1	0.0	0	16	2	0	1	-	0	-	SGMW-13A
SGMW-14A	29.4	0.0	6.3	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	28.1	40.0	27.0	838	562	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	5.6	332	288	136	136	150	2	1	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	1.9	0.0	(1026)	146	38	0	0	0	0	0	SGMW-03C
SGMW-04A	37.5	49.1	3.5	1.9	748	982	70	38	0	0	0	0	SGMW-04A
SGMW-04B	43.0	50.7	23.2	14.4	860	(1014)	464	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	0	0	0	0	0	0	0	0	SGMW-09C
SGMW-10A	1.9	16.4	2.0	0.0	4	0	0	0	1	0	0	0	SGMW-10A
SGMW-10B	2.4	16.1	12.0	3.9	38	328	40	0	0	2	0	0	SGMW-10B
SGMW-10C	0.0	14.5	10.0	2.4	48	322	240	78	0	0	0	0	SGMW-10C
SGMW-11A	0.0	16.0	5.5	0.0	0	290	200	48	0	0	0	0	SGMW-11A
SGMW-11B	0.0	14.7	10.1	0.3	0	320	110	0	0	2	0	0	SGMW-11B
SGMW-12A	22.5	48.5	9.9	0.0	0	294	202	6	109	0	0	0	SGMW-12A
SGMW-12B	0.0	0.2	7.2	0.0	450	970	196	0	122	21	0	0	SGMW-12B
SGMW-13A	0.0	0.6	1.0	0.0	0	4	144	0	136	0	0	0	SGMW-13A
SGMW-13B	0.0	0.1	0	1.1	0	12	20	0	0	0	0	0	SGMW-13A
SGMW-14A	0.0	0.1	0.0	0.0	0	2	0	22	191	0	0	0	SGMW-14A
SGMW-14B	0	0.1	0	2.3	0	2	0	0	130	0	0	0	SGMW-14B
SGMW-15A	0.0	0.1	0.0	0.0	0	2	0	46	122	0	0	0	SGMW-15A
SGMW-15B	0	0	0	5.6	0	2	0	0	0	0	0	0	SGMW-15B
SGMW-16A	0	0.1	0	0.0	0	0	0	116	0	0	0	0	SGMW-16A
SGMW-16B	0	0	0	0.0	0	2	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	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	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.
H2S pod suspected of not operating correctlyin March

2005 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/30/05	Methane (% By Volume) 7/21/05	Methane (% By Volume) 10/21/05	Methane (% By Volume) 12/28/05	LEL (% By Volume) 3/30/05	LEL (% By Volume) 7/21/05	LEL (% By Volume) 10/21/05	LEL (% By Volume) 12/28/05	Hydrogen Sulfide (ppm by volume) 3/30/05	Hydrogen Sulfide (ppm by volume) 7/21/05	Hydrogen Sulfide (ppm by volume) 10/21/05	Hydrogen Sulfide (ppm by volume) 12/28/05	Soil Gas Monitoring Well
SGMW-01A	8.8	5.4	5	6.7	176	108	100	134	1	3	2	2	SGMW-01A
SGMW-01B	3.0	2.9	3	3.8	60	58	60	76	0	0	0	0	SGMW-01B
SGMW-01C	7.5	5.6	5.5	6.1	150	112	110	122	1	0	0	0	SGMW-01C
SGMW-02A	0.3	13.7	1.7	3.0	6	274	34	60	0	0	0	1	SGMW-02A
SGMW-02B	0.2	0.7	27.2	12.4	4	14	544	248	1	0	6	3	SGMW-02B
SGMW-02C	0.3	0.1	24.7	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	0	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	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	638	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	26.9	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	808	0	0	0	2	0	SGMW-06B
SGMW-06C	0.0	21.7	37.3	0.0	0	434	746	0	0	0	0	0	SGMW-06C
SGMW-07A	0.0	0.0	0.3	0.0	0	0	6	0	0	0	0	0	SGMW-07A
SGMW-07B	0.0	0.0	0.3	0.0	0	0	6	0	0	0	0	0	SGMW-07B
SGMW-07C	0.0	0.0	0.3	0.0	0	0	6	0	0	0	0	0	SGMW-07C
SGMW-08A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-08A
SGMW-08B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	2	0	SGMW-08B
SGMW-08C	0.0	0.0	0.0	0.0	0	0	0	0	0	0	2	0	SGMW-08C
SGMW-09A	0.0	0.1	0.0	0.0	0	2	0	0	0	0	0	0	SGMW-09A
SGMW-09B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-09B
SGMW-09C	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-09C
SGMW-10A	0.0	9.8	15.4	0.0	0	196	308	0	0	0	0	0	SGMW-10A
SGMW-10B	0.0	12.0	18.0	0.0	0	240	360	0	0	0	2	0	SGMW-10B
SGMW-10C	0.0	10.6	16.2	0.0	0	212	324	0	0	0	2	0	SGMW-10C
SGMW-11A	0.0	7.6	15.3	0.0	0	152	306	0	0	0	2	0	SGMW-11A
SGMW-11B	0.0	9.8	14.9	0.0	0	196	298	0	0	0	25	0	SGMW-11B
SGMW-12A	0.0	16.7	41.3	0.0	0	336	826	0	0	0	18	0	SGMW-12A
SGMW-12B	1.1	2.0	0.0	0.0	22	40	0	0	0	0	0	0	SGMW-12B
SGMW-13A	0.0	0.0	0.2	0.0	0	0	4	0	0	0	0	0	SGMW-13A
SGMW-13B	0.0	0.0	0.2	0.0	0	0	4	0	0	0	0	0	SGMW-13A
SGMW-14A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-14A
SGMW-14B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-14B
SGMW-15A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-15A
SGMW-15B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-15B
SGMW-16A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	1	0	SGMW-16A
SGMW-16B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	1	0	SGMW-16B
SGMW-17A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-17A
SGMW-17B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-18A
SGMW-18B	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	SGMW-18B
SGMW-19A	16.7	17.3	16.6	23.9	340	348	332	478	0	0	2	5	SGMW-19A
SGMW-19B	1.7	9.4	18.0	0.0	32	186	360	0	0	0	1	0	SGMW-19B
GSGM-1A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1A
GSGM-1B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1B
GSGM-1C	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-1C
GSGM-2A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2A
GSGM-2B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2B
GSGM-2C	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-2C
GSGM-3A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-3A
GSGM-3B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-3B
GSGM-4A	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-4A
GSGM-4B	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	GSGM-4B

Measurements in ( ) are calculated, not measured.

2007 Current Landfill Soil Gas Monitoring Summary Table

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

Measurements in ( ) are calculated, not measured.

2008 Current Landfill Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) 3/24/2008	Methane (% By Volume) 7/29/2008	Methane (% By Volume) 9/30/2008	Methane (% By Volume) 12/9/2008	LEL (% By Volume) 3/24/2008	LEL (% By Volume) 7/29/2008	LEL (% By Volume) 9/30/2008	LEL (% By Volume) 12/9/2008	Hydrogen Sulfide (ppm by volume) 3/24/2008	Hydrogen Sulfide (ppm by volume) 7/29/2008	Hydrogen Sulfide (ppm by volume) 9/30/2008	Hydrogen Sulfide (ppm by volume) 12/9/2008	Soil Gas Monitoring Well
SGMW-01A	10.8	3	8.8	11.2	220	96	176	224	3	2	2	0	SGMW-01A
SGMW-01B	9.9	2.6	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	660	788	850	746	11	16	0	0	SGMW-02A
SGMW-02B	1.1	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	860	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	706	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	460	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	19	65	92	3	SGMW-12A
SGMW-12B	30.6	32.9	43.7	41.3	612	658	874	826	0	1	10	2	SGMW-12B
SGMW-13A	0	0.5	0.6	0.2	0	10	13	4	0	2	0	0	SGMW-13A
SGMW-13B	0	31.9	42.8	36.7	0	648	856	734	0	2	29	4	SGMW-13A
SGMW-14A	0	0.7	2.1	0.5	0	14	42	10	0	0	0	0	SGMW-14A
SGMW-14B	0	0.3	3	0.5	0	6	61	11	0	0	0	0	SGMW-14B
SGMW-15A	0	0.2	2.2	0	0	4	45	0	0	0	0	0	SGMW-15A
SGMW-15B	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-15B
SGMW-16A	0	0.2	0	0	0	4	0	0	1	0	0	0	SGMW-16A
SGMW-16B	0	0.5	0	0	0	10	0	0	0	0	0	0	1
SGMW-17A	0	0	0	0	0	0	0	0	1	0	0	0	SGMW-17A
SGMW-17B	0	0.4	0	0	0	8	0	0	0	0	0	0	SGMW-17B
SGMW-18A	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-18A
SGMW-18B	0	0.2	0	0	0	4	0	0	0	0	0	0	SGMW-18B
SGMW-19A	14.5	7.5	32.4	0	290	154	648	312	11	3	30	1	SGMW-19A
SGMW-19B	11.5	6.2	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

1998 Environmental Monitoring Report

Current and Former Landfills Brookhaven National Laboratory

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

◇ No measurement taken.

Negative numbers reported are due to equipment problems.

Brookhaven National Laboratory

1998 Landfills Environmental Monitoring Report

1998 Former Landfill Area Soil Gas Monitoring Summary Table

Soil Gas Monitoring Well	Methane (% By Volume) February-98	Methane (% By Volume) May-98	Methane (% By Volume) August-98	Methane (% By Volume) December-98
SGMW-01A	0	0	0	0
SGMW-01B	0.1	0	0	0
SGMW-02A	0	0	0	0
SGMW-02B	0.1	0	0	0
SGMW-03A	0	0	0	0
SGMW-03B	0	0	0	0
SGMW-04A	0	0.1	0	0.1
SGMW-04B	0	0	0	0
SGMW-05A	0	0	0	0
SGMW-05B	0	0	0	0
SGMW-06A	0	0	0	0
SGMW-06B	0	0	0	0
SGMW-07A	<>	<>	<>	<>
SGMW-07B	<>	<>	<>	<>
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

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

<> Well SGM07 was not accessible

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

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

<> No measurement was recorded.

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

Soil Gas Monitoring Well	Methane (% By Volume) February-00	Methane (% By Volume) June-00	Methane (% By Volume) September-00	Methane (% By Volume) December-00	LEL (% By Volume) February-00	LEL (% By Volume) June-00	LEL (% By Volume) September-00	LEL (% By Volume) December-00	Hydrogen Sulfide (ppm by volume) February-00	Hydrogen Sulfide (ppm by volume) June-00	Hydrogen Sulfide (ppm by volume) September-00	Hydrogen Sulfide (ppm by volume) December-00	Soil Gas Monitoring Well
SGMW-01A	0	0	0	0	0	0	0	0	2	5	1	1	SGMW-01A
SGMW-01B	0	0	0	0	0	0	0	0	0	0	2	2	SGMW-01B
SGMW-02A	0	0	0	0	0	0	0	0	2	0	2	2	SGMW-02A
SGMW-02B	0	0	0	0	0	0	0	0	0	0	0	1	SGMW-02B
SGMW-03A	0	0	0	0	0	0	0	0	0	1	2	2	SGMW-03A
SGMW-03B	0	0	0	0	0	0	0	0	0	0	1	2	SGMW-03B
SGMW-04A	0	0	0	0	0	0	0	0	0	0	1	3	SGMW-04A
SGMW-04B	0	0	0	0	0	0	0	0	0	0	1	4	SGMW-04B
SGMW-05A	0	0	0	0	0	0	0	0	1	1	1	4	SGMW-05A
SGMW-05B	0	0	0	0	0	0	0	0	0	0	2	3	SGMW-05B
SGMW-06A	0	0	0	0	0	0	0	0	0	0	0	4	SGMW-06A
SGMW-06B	0	<>	0	0	0	<>	0	0	0	<>	1	4	SGMW-06B
SGMW-07A	0	<>	0	0	0	<>	0	0	0	<>	1	6	SGMW-07A
SGMW-07B	0	<>	0	0	0	<>	0	0	0	<>	0	6	SGMW-07B
SGMW-08A	0	<>	0	0	0	<>	0	0	0	<>	0	3	SGMW-08A
SGMW-08B	0	<>	0	0	0	<>	0	0	0	<>	0	4	SGMW-08B
SGMW-09A	0	<>	0	0	0	<>	0	0	0	2	1	8	SGMW-09A
SGMW-09B	0	0	0	0	0	0	0	0	0	1	2	4	SGMW-09B
SGMW-10A	0	0	0	0	0	0	0	0	0	0	1	6	SGMW-10A
SGMW-10B	0	0	0	0	0	0	0	0	0	0	0	5	SGMW-10B
SGMW-11A	0	0	0	0	0	0	0	0	0	1	0	5	SGMW-11A
SGMW-11B	0	0	0	0	0	0	0	0	0	0	1	4	SGMW-11B
SGMW-12A	0	0	0	0	0	0	0	0	2	1	1	3	SGMW-12A
SGMW-12B	0	0	0	0	0	0	0	0	2	0	1	2	SGMW-12B

No Measurement was collected due to other work in the area.

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

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

o Measurement was collected due to other work in the area.

2002 Former Landfill Soil Gas Monitoring Summary

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

2003 Fonner Landfill Soil Gas Monitoring Summary

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

July measurements taken with a Landtec GEM 500

- H2S pod not operational

2004 Former Landfill Soil Gas Monitoring Summary

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

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

2005 Former Landfill Soil Gas Monitoring Summary Table

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

2006 Former Landfill Soil Gas Monitoring Summary Table

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

2007 Former Landfill Soil-Gas Monitoring Summary Table

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

2008 Former Landfill Soil-Gas Monitoring Summary Table

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