

# A CASE STUDY DEMONSTRATING U.S. EPA GUIDANCE FOR EVALUATING LANDFILL GAS EMISSIONS FROM CLOSED OR ABANDONED FACILITIES

## BUSH VALLEY LANDFILL HARFORD COUNTY, MARYLAND



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## **BUSH VALLEY LANDFILL HARFORD COUNTY, MARYLAND**

by

**ENVIRONMENTAL QUALITY MANAGEMENT, INC.  
Cedar Terrace Office Park, Suite 250  
3325 Durham-Chapel Hill Boulevard  
Durham, North Carolina 27707-2646**

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**EPA Project Officer: Ms. Susan Thorneloe  
Office of Research and Development (ORD)  
National Risk Management Research Laboratory (NRMRL)  
Air Pollution Prevention and Control Division (APPCD)  
Research Triangle Park, North Carolina.**

**U.S. Environmental Protection Agency  
Office of Research and Development  
Washington, DC 20460**

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## Abstract

This report describes a case study that applies EPA-600/R-05/123—the guidance for conducting air pathway analyses of landfill gas emissions that are of interest to superfund remedial project managers, on-scene coordinators, facility owners, and potentially responsible parties. The particular site examined for this case study was the Bush Valley Landfill in Harford County, MD. This site has a flexible membrane liner, 5 passive vents, and 17 monitoring probes. The case study exemplifies the use of the procedures and tools described in the guidance for evaluating LFG emissions to ambient air. The air pathway analysis is used to evaluate the inhalation risks to offsite receptors as well as the hazards of both onsite and offsite methane explosions and landfill fires. Landfill gases detected at the site were methane and chemicals of particular concern (COPCs) that encompassed 1,1,1-trichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, benzene, chlorobenzene, 1,4-dichlorobenzene, chloroethane, dichlorobenzene, methylene chloride, toluene, trichloroethene, vinyl chloride, and xylenes. The report includes values of 90th percentile concentration of COPCs and isopleths of the COPC concentrations overlaid on an aerial photograph of the site.

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## Foreword

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This publication has been produced as part of the Laboratory's strategic long-term research plan. It is published and made available by EPA's Office of Research and Development to assist the user community and to link researchers with their clients.

Sally Gutierrez, Director  
National Risk Management Research Laboratory

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## Executive Summary

The Bush Valley Landfill (landfill) Site is located in Harford County, Maryland, one mile from the town of Abingdon. The site is located on a 29-acre parcel of land, approximately 16 of which are occupied by the actual landfill. The Bush Declaration Natural Resources Management Area is a 120-acre tidal cattail marsh that borders the site to the north and east. Harford Town, a planned community, lies west of the site across Bush Road, and three single-family homes are located within 300 feet of the landfill's southern border. The landfill itself consists of a mound of covered material sloping up from the southern site boundary. A flexible membrane liner (FML) and gas collection system have been installed on this landfill as have 5 passive vents and 17 probes. The screening procedures were carried out to identify any leaks that may be present in the cover.

This site was selected in order to provide a comparison to the historical decisions concerning the number and location of the perimeter monitoring probes and the need to control LFG with the conclusions one would reach if the guidance document procedures were followed.

By implementing the methodologies and protocols detailed in the Guidance for Evaluating Landfill Gas Emissions from Closed or Abandoned Facilities (EPA-600/R-05/123a), potential hot spots were identified by using the screening process. Ten chemicals of potential concern (COPCs) were identified in the landfill gas by implementing the sampling and analysis protocols from the guidance document. The organic chemicals of potential concern for this site include dioxane, acetone, benzene, carbon disulfide, chloromethane, ethanol, methylene chloride, tetrachloroethene, toluene, and vinyl chloride. Emission and dispersion modeling (LandGEM and SCREEN3) were used to estimate emission rates and ambient air concentrations. The estimated ambient air concentration for each COPC was then compared to various risk ranges.

This case study successfully illustrated that the procedures and methodologies described in the guidance could be implemented in a step-wise manner. This landfill evaluation identified previously unrecognized leaks in the FML and confirmed previous findings that indicated LFG has migrated offsite in a direction towards occupied homes via below ground sand layers. This illustrative study effort was not designed to fully characterize the aerial extent of the LFG migration. Since remedial alternatives were already being designed for the landfill and plans to replace the passive vents collection system with an enclosed oxidizer were already approved, no further site investigation effort was undertaken.



## Section 1. Demonstration Objectives

The purpose of the activities described in this document was to provide a demonstration of the procedures as described within the “Guidance for Evaluating Landfill Gas Emissions from Closed or Abandoned Facilities” (guidance) (EPA-600/R-05/123). It was also the intent of this demonstration to provide an example case study for reference by the practitioner. These efforts were not intended to provide a comprehensive site analysis or complete risk assessment.

This site was selected in order to provide a comparison to the historical decisions concerning the number and location of the perimeter monitoring probes and the need to control LFG with the conclusions one would reach if the guidance document procedures were followed. A flexible membrane liner (FML) and gas collection system has already been installed on this landfill. The site has 5 passive

vents and 17 monitoring probes. As part of this demonstration all of the existing probes and vents were screened for total hydrocarbons (THC), reported as methane and non-methane organic compound (NMOC) by using direct read instruments. All of the vents and probes were also sampled and analyzed for Methane, NMOC, fixed gases, and volatile organic chemicals. Additional subsurface samples were not collected to prevent any damage to the liner and the need for the project team to make such repairs to the liner. The screening procedures were carried out in order to identify any leaks that may be present in the cover. The guidance document procedures were designed to minimize the number of samples needing to be collected and to direct where sampling should occur. The statistical procedures from the guidance were completed to determine where and how many samples would have been collected if the FML were absent.



## Section 2. Site Description

The Bush Valley Landfill (landfill) site is located in Harford County, Maryland, one mile from the town of Abingdon. The site is located on a 29 acre parcel of land, approximately 16 of which are occupied by the actual landfill. The landfill is located approximately 1/3 mile south of Maryland Route 7 and 1/2 mile north of U.S. Route 40. The site is accessed from Bush Road, which forms the western border of the site. The Bush Declaration Natural Resources Management Area is a 120-acre tidal cattail marsh that borders the site to the north and east. Harford Town, a planned community, lies west of the site across Bush Road. Three single-family homes are located within 300 feet of the landfill's southern border.

As noted above, a freshwater marsh lies to the north and east of the site. Bynum Run Creek flows to the north of the site until its confluence with James Run, which in turn flows into a tributary of the Bush River. Figure 1 shows the approximate location and orientation of the landfill.

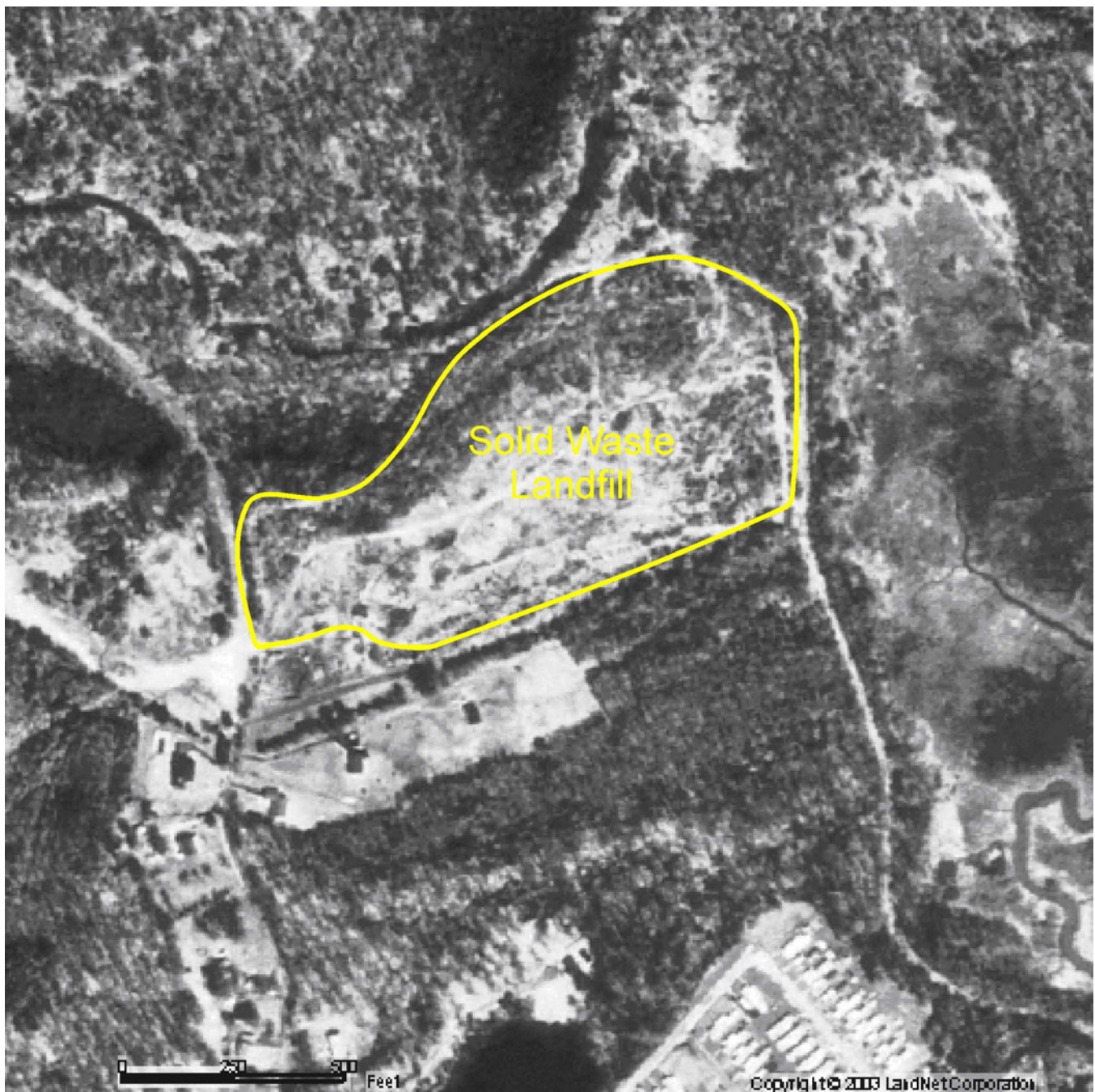
The landfill itself consists of a mound of covered material sloping up from the southern site boundary. The mound peaks 25 feet above natural grade approximately in the

center of the site and then slopes downward to the north at a somewhat steeper slope than on the south side of the site. The graded site also slopes gently to the east and west towards the marsh area and Bush Road, respectively.

The landfill is capped with a geosynthetic capping system. The cap is multilayered and includes:

- 2 feet of soil bedding material on top of the solid waste
- Gas transmission layer (6 oz/yd<sup>2</sup> geotextile),
- Hydraulic barrier (40 mil low density polyethylene),
- Drainage layer (6 oz/yd<sup>2</sup> geotextile),
- Anchor trench (3 foot run out and 2 feet deep),
- Soil cover (2 feet thick) with shallow root vegetation,
- 5 passive LFG vents (4 inch schedule 80 PVC) along ridge line, and
- 9 permanent gas monitoring probes (2 inch diameter with 3/8 inch valves).

Figure 2 is a site plan. Figure 3 shows the construction details for the passive vents.



**Figure 1.** Location and Orientation of the Bush Valley Solid Waste Landfill.

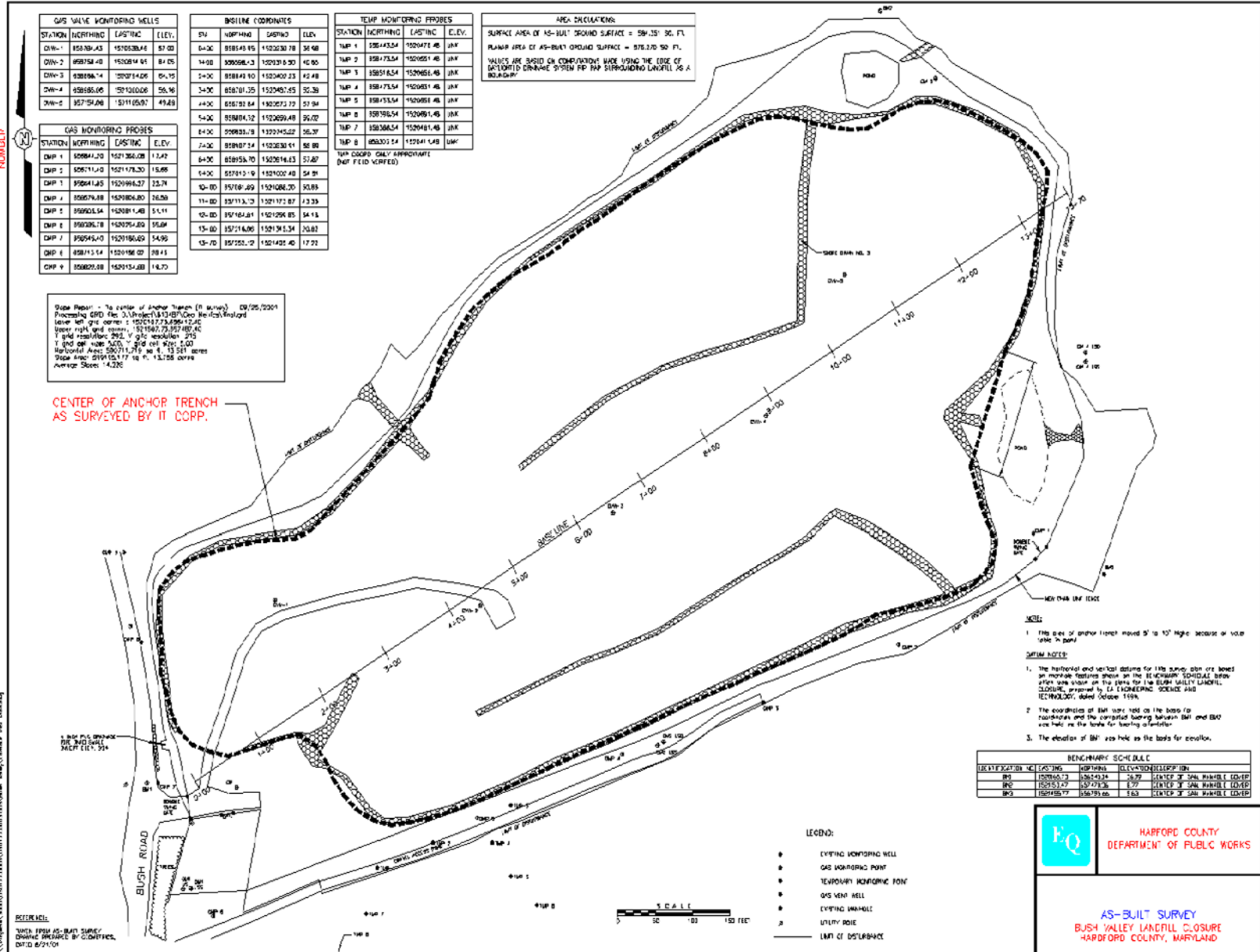


Figure 2. Bush Valley Site Plan.



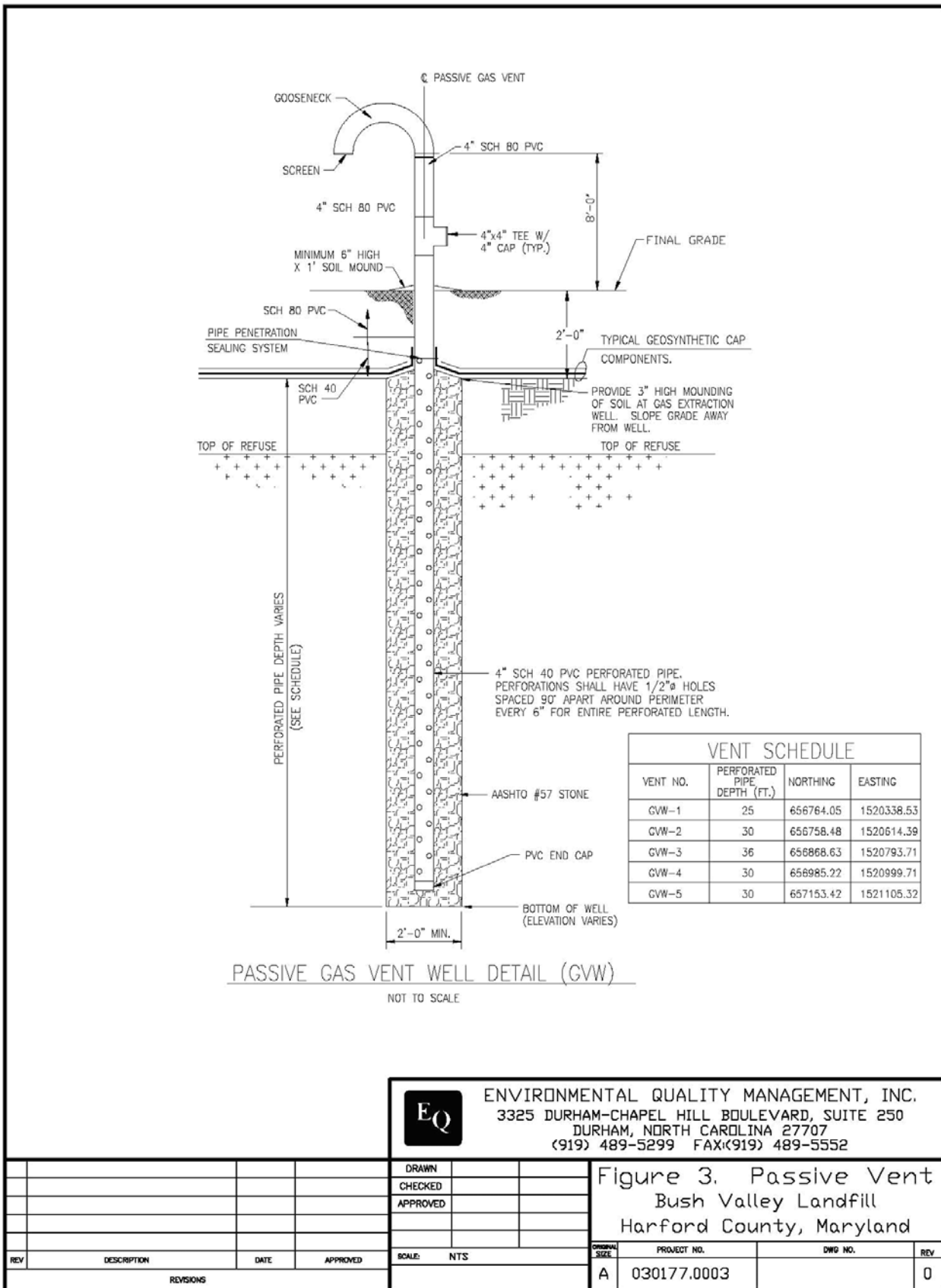


Figure 3. Passive Vent Construction Detail.

## Section 3. Site History

The site history contained herein was derived from historical literature available for the site. The Bush Valley Superfund Landfill, began operation in 1974. Prior to 1974, the land was used for cattle grazing and raising crops. In 1974, a trash hauler leased the property and contracted with Harford County in 1975 to provide landfill services for the county. That same year, the Maryland Department of Health and Mental Hygiene (DHMH) granted a permit to use the land as a municipal solid waste landfill. The landfill took in household and industrial wastes. The operator abandoned the site in 1983 when the landfill reached capacity, and the site was added to the National Priority List (NPL) in 1989. The final Record of Decision (ROD) was issued in 1995. The final design for the remedial action was completed in 1999. The landfill was closed in 2001 with the installation of a flexible membrane single barrier cover system. As a part of the landfill closure, a passive landfill gas (LFG) control system was installed. This passive system consists of 14 subsurface gas collection points that terminate below the landfill cap into a gas transmission layer that is connected to five passive gas vent wells aligned along the ridge of the landfill.

In December 2002, eight temporary gas monitoring probes (TMP) were installed in the sand and gravel layer that exists approximately 15 feet below ground surface. These probes confirmed that a 15-foot thick layer of clayey soil is overlaying the sand. This study effort also demonstrated that methane at concentrations between 62 and 65.4 percent exists in the sand layer, and the gas pressure within

the sand layer is approximately 0.4 inches of Hg. Prior to this study, samples from the temporary probes had not been analyzed for speciated volatile organics.

These eight temporary probes were located such that:

- TMP-1, TMP-2, and TMP-3 were installed along a transect that parallels the landfill property line and represent locations that were between the two closest residences and the buried landfill waste. These probes were between 20 and 60 feet south of the buried waste. The lateral spacing between these probes was approximately 50 feet.
- TMP-4, TMP-5, and TMP-6 were installed along a transect that connects the Fleet house (middle resident) and the buried waste that was closest to the Fleet house. The lateral spacing for these probes was approximately 50 feet.
- TMP-7 and TMP-8 were installed along a transect that connects the Milton house (eastern resident) and the buried waste that was closest to the Milton house. The lateral spacing for these probes was approximately 50 feet.

Analytical results of groundwater and ambient air samples indicate that 10 volatile organic compounds (VOCs) have been detected at varying concentrations. The organic chemicals of potential concern for this site include 1,4 dioxane, acetone, benzene, carbon disulfide, chloromethane, ethanol, methylene chloride, tetrachloroethene, toluene, and vinyl chloride.



## Section 4. Field Activities and Data Collection

Field activities as described in the approved site activity plan for the Bush Valley Landfill located in Abingdon, Maryland were conducted on August 25 and August 26, 2003. Field activities included landfill surface screening analysis, screening data reduction, hot spot and homogeneity determinations, landfill soil gas sampling, passive vent gas sampling, perimeter well gas sampling, and ambient air sampling. Appendix A contains pictures from the site activities conducted on August 25 and 26, 2003.

To assist with the field activities, a 30 m by 30 m sampling grid was developed across the extent of the landfill area prior to the field activities. This sampling grid was developed to include the entire extent of the landfill boundary area and extend 30 m beyond that boundary area. This grid was then numbered for each node location forming a serpentine sampling pathway across the grid. A total of 108 sampling locations comprised the sampling grid layout developed for this site. A reference point was identified using an identifiable landmark on the site to locate the starting point. Figure 4 shows the sampling grid for the screening analysis.

### 4.1 Landfill Surface Screening Analysis

Once on site, the reference point was visually located, and the screening analysis was begun by locating the starting point (grid node 1) using a handheld global positioning system (GPS). The screening analysis included measurements for non-methane organic compounds (NMOC) us-

ing a photo ionized detector (PID) and for methane (CH<sub>4</sub>) by using a flame ionized detector (FID). Both the PID and FID were held no more than one inch above the ground while measurements were being made. It should be noted that the field instruments are very sensitive, and fluctuation due to gusts of wind across the landfill cover could have been significant. Readings were taken for approximately one minute and the average value, excluding the extreme highs and lows, was recorded. In conducting the serpentine walk across the site, an effort was made to identify areas containing cracks and gaps in the landfill cover, and measurements were made at these locations to the extent possible. As this site had previously installed passive vents, these passive vents were including in the screening analysis as a breach in the cover. The permanent and temporary installed gas monitoring probes were also included in these screening activities. All predetermined sampling locations were not accessible for a variety of reasons, ranging from being located on private property to inaccessible by the field crew due to extreme overgrowth. An attempt was made to collect a reading at each location, with measurements being collected not greater than 10 m from the predetermined locations. As part of the quality assurance/quality control (QA/QC) efforts, duplicate readings were also taken at predetermined locations that were selected based on a random number generator. All screening data were recorded on field log data collection forms along with any field notes relevant to this specific location. There was 90 percent data collection efficiency. Table 1 provides the screening sample results.

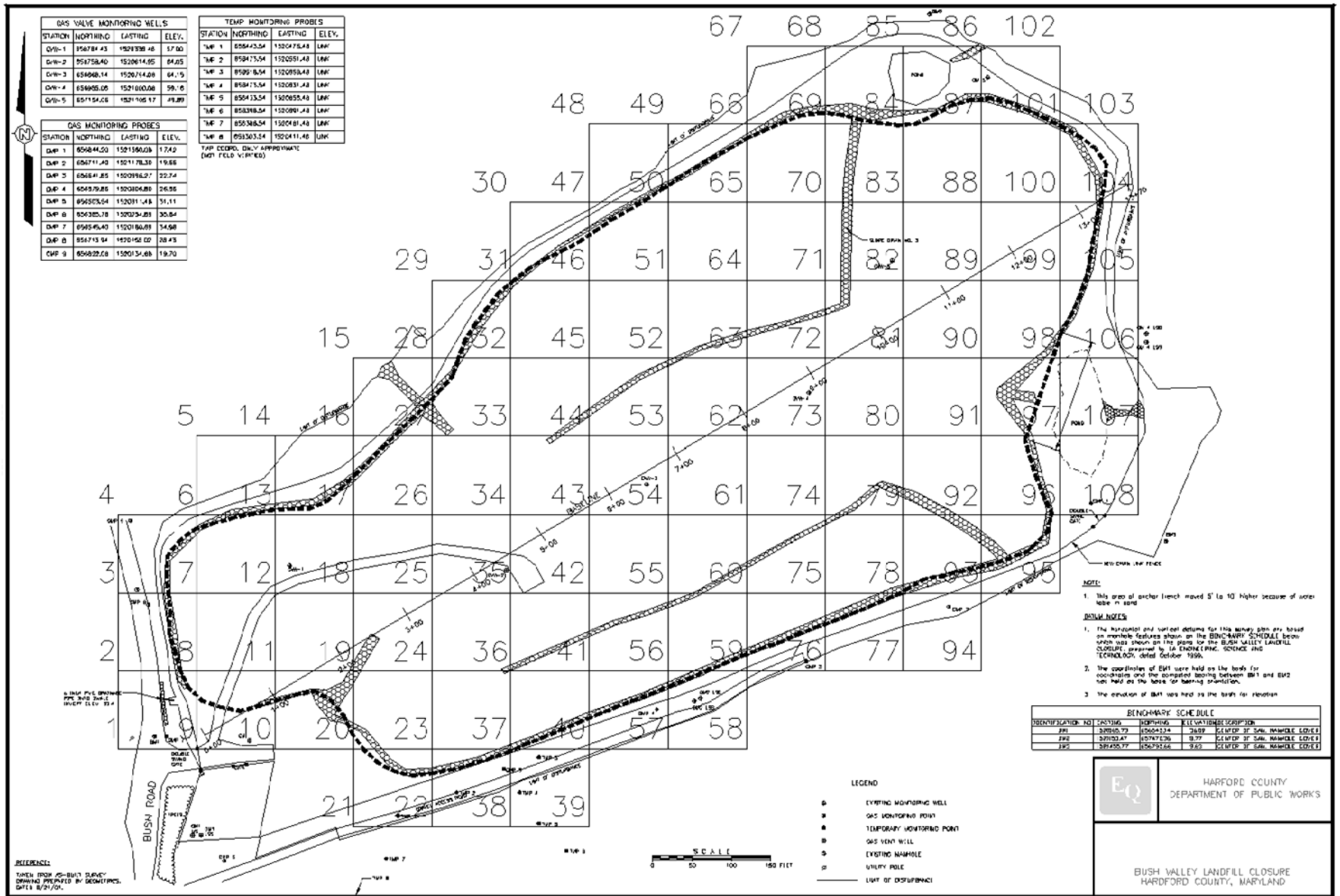


Figure 4. Screening Sampling Grid Locations.

**Table 1. Bush Valley Screening Sample Results.**

| Grid No. | Sample ID No.           | Actual UTM Coordinates |          | NMOC Conc. | CH <sub>4</sub> Conc. |
|----------|-------------------------|------------------------|----------|------------|-----------------------|
|          |                         | Easting                | Northing |            |                       |
| 1        | LFSG-02-08 27 03 -R 001 | 18391264               | 4369160  | ND         | 1.29                  |
| 2        | LFSG-02-08 27 03 -R 002 | 18391275               | 4369193  | ND         | 1.29                  |
| 3        | LFSG-02-08 27 03 -R 003 | 18391270               | 4369221  | ND         | 1.05                  |
| 4        | LFSG-02-08 27 03 -R 004 | 18391258               | 4369252  | ND         | 1.58                  |
| 5        |                         | NA                     | NA       | NA         | NA                    |
| 6        | LFSG-02-08 27 03 -R 005 | 18391296               | 4369251  | ND         | 1.22                  |
| 7        | LFSG-02-08 27 03 -R 006 | 18391311               | 4369216  | ND         | 3.33                  |
| 8        | LFSG-02-08 27 03 -R 007 | 18391314               | 4369185  | ND         | 1.4                   |
| 9        | LFSG-02-08 27 03 -R 008 | 18391313               | 4369140  | ND         | 1.32                  |
| 10       | LFSG-02-08 27 03 -R 009 | 18391327               | 4369141  | ND         | 1.37                  |
| 11       | LFSG-02-08 27 03 -R 010 | 18391330               | 4369191  | ND         | 1.31                  |
| 12       | LFSG-02-08 27 03 -R 011 | 18391329               | 4369221  | ND         | 1.65                  |
| 13       | LFSG-02-08 27 03 -R 012 | 18391325               | 4369248  | ND         | 3.11                  |
| 14       |                         | NA                     | NA       | NA         | NA                    |
| 15       |                         | NA                     | NA       | NA         | NA                    |
| 16       | LFSG-02-08 27 03 -R 013 | 18391353               | 4369267  | ND         | 20.2                  |
| 17       | LFSG-02-08 27 03 -R 014 | 18391357               | 4369250  | ND         | 2.08                  |
| 18       | LFSG-02-08 27 03 -R 015 | 18391355               | 4369220  | ND         | 1.44                  |
| 19       | LFSG-02-08 27 03 -R 016 | 18391359               | 4369189  | ND         | 1.7                   |
| 20       | LFSG-02-08 27 03 -R 017 | 18391354               | 4369160  | ND         | 0.85                  |
| 21       | LFSG-02-08 27 03 -R 018 | 18391357               | 4369141  | ND         | 0.9                   |
| 22       | LFSG-02-08 27 03 -R 097 | 18391384               | 4369133  | ND         | 2.08                  |
| 23       | LFSG-02-08 27 03 -R 019 | 18391385               | 4369154  | ND         | 5.5                   |
| 24       | LFSG-02-08 27 03 -R 020 | 18391391               | 4369189  | ND         | 1.66                  |
| 25       | LFSG-02-08 27 03 -R 021 | 18391386               | 4369214  | ND         | 1.39                  |
| 26       | LFSG-02-08 27 03 -R 022 | 18391386               | 4369252  | ND         | 1.71                  |
| 27       | LFSG-02-08 27 03 -R 023 | 18391383               | 4369280  | ND         | 34                    |
| 28       |                         | NA                     | NA       | NA         | NA                    |
| 29       |                         | NA                     | NA       | NA         | NA                    |
| 30       |                         | NA                     | NA       | NA         | NA                    |
| 31       | LFSG-02-08 27 03 -R 024 | 18391411               | 4369330  | ND         | 55.25                 |
| 32       | LFSG-02-08 27 03 -R 025 | 18391421               | 4369310  | ND         | 52.27                 |
| 33       | LFSG-02-08 27 03 -R 026 | 18391419               | 4369278  | ND         | 2.27                  |
| 34       | LFSG-02-08 27 03 -R 027 | 18391416               | 4369251  | ND         | 1.54                  |
| 35       | LFSG-02-08 27 03 -R 028 | 18391415               | 4369219  | ND         | 1.67                  |
| 36       | LFSG-02-08 27 03 -R 029 | 18391417               | 4369190  | ND         | 1.86                  |
| 37       | LFSG-02-08 27 03 -R 030 | 18391416               | 4369161  | ND         | 2.38                  |
| 38       | LFSG-02-08 27 03 -R 096 | 18391413               | 4369142  | ND         | 1.88                  |
| 39       | LFSG-02-08 27 03 -R 095 | 18391447               | 4369148  | ND         | 2.22                  |
| 40       | LFSG-02-08 27 03 -R 031 | 18391447               | 4369168  | ND         | 2.08                  |
| 41       | LFSG-02-08 27 03 -R 032 | 18391442               | 4369190  | ND         | 2.71                  |
| 42       | LFSG-02-08 27 03 -R 033 | 18391445               | 4369220  | ND         | 38.36                 |
| 43       | LFSG-02-08 27 03 -R 034 | 18391444               | 4369251  | ND         | 2.01                  |
| 44       | LFSG-02-08 27 03 -R 035 | 18391446               | 4369279  | ND         | 3.85                  |
| 45       | LFSG-02-08 27 03 -R 036 | 18391443               | 4369312  | ND         | 2.65                  |

<sup>a</sup> ND = not detected  
<sup>b</sup> NA = not available

continued

**Table 1. Bush Valley Screening Sample Results (continued).**

| Grid No. | Sample ID No.           | Actual UTM Coordinates |          | NMOC Conc. | CH <sub>4</sub> Conc. |
|----------|-------------------------|------------------------|----------|------------|-----------------------|
|          |                         | Easting                | Northing |            |                       |
| 46       | LFSG-02-08 27 03 -R 037 | 18391442               | 4369341  | ND         | 3.98                  |
| 47       | LFSG-02-08 27 03 -R 038 | 18391446               | 4369352  | ND         | 3.13                  |
| 48       |                         | NA                     | NA       | NA         | NA                    |
| 49       |                         | NA                     | NA       | NA         | NA                    |
| 50       | LFSG-02-08 27 03 -R 039 | 18391476               | 4369373  | ND         | 4.12                  |
| 51       | LFSG-02-08 27 03 -R 040 | 18391476               | 4369341  | ND         | 1.79                  |
| 52       | LFSG-02-08 27 03 -R 041 | 18391477               | 4369310  | ND         | 1.98                  |
| 53       | LFSG-02-08 27 03 -R 042 | 18391476               | 4369279  | ND         | 2.57                  |
| 54       | LFSG-02-08 27 03 -R 043 | 18391477               | 4369249  | ND         | 1.91                  |
| 55       | LFSG-02-08 27 03 -R 044 | 18391475               | 4369219  | ND         | 3.34                  |
| 56       | LFSG-02-08 27 03 -R 045 | 18391475               | 4369189  | ND         | 1.76                  |
| 57       | LFSG-02-08 27 03 -R 094 | 18391475               | 4369161  | ND         | 2.41                  |
| 58       | LFSG-02-08 27 03 -R 093 | 18391512               | 4369164  | ND         | 2.81                  |
| 59       | LFSG-02-08 27 03 -R 046 | 18391507               | 4369190  | ND         | 1.84                  |
| 60       | LFSG-02-08 27 03 -R 047 | 18391504               | 4369223  | ND         | 2.03                  |
| 61       | LFSG-02-08 27 03 -R 048 | 18391506               | 4369250  | ND         | 2.09                  |
| 62       | LFSG-02-08 27 03 -R 049 | 18391510               | 4369281  | ND         | 37.31                 |
| 63       | LFSG-02-08 27 03 -R 050 | 18391504               | 4369311  | ND         | 1.79                  |
| 64       | LFSG-02-08 27 03 -R 051 | 18391507               | 4369341  | ND         | 7.11                  |
| 65       | LFSG-02-08 27 03 -R 052 | 18391506               | 4369371  | ND         | 5.54                  |
| 66       | LFSG-02-08 27 03 -R 053 | 18391508               | 4369390  | ND         | 6.56                  |
| 67       |                         | NA                     | NA       | NA         | NA                    |
| 68       | LFSG-02-08 27 03 -R 054 | 18391539               | 4369412  | ND         | 5.05                  |
| 69       | LFSG-02-08 27 03 -R 055 | 18391542               | 4369398  | ND         | 2.16                  |
| 70       | LFSG-02-08 27 03 -R 056 | 18391532               | 4369371  | ND         | 2.26                  |
| 71       | LFSG-02-08 27 03 -R 057 | 18391535               | 4369340  | ND         | 3.01                  |
| 72       | LFSG-02-08 27 03 -R 058 | 18391539               | 4369309  | ND         | 2.75                  |
| 73       | LFSG-02-08 27 03 -R 065 | 18391539               | 4369279  | ND         | 2.26                  |
| 74       | LFSG-02-08 27 03 -R 059 | 18391535               | 4369252  | ND         | 23.43                 |
| 75       | LFSG-02-08 27 03 -R 060 | 18391539               | 4369220  | ND         | 3.49                  |
| 76       | LFSG-02-08 27 03 -R 061 | 18391536               | 4369200  | ND         | 2.44                  |
| 77       | LFSG-02-08 27 03 -R 092 | 18391564               | 4369206  | ND         | 3.08                  |
| 78       | LFSG-02-08 27 03 -R 062 | 18391566               | 4369208  | ND         | 1.86                  |
| 79       | LFSG-02-08 27 03 -R 063 | 18391560               | 4369252  | ND         | 2.83                  |
| 80       | LFSG-02-08 27 03 -R 064 | 18391565               | 4369280  | ND         | 2.29                  |
| 81       | LFSG-02-08 27 03 -R 065 | 18391566               | 4369312  | ND         | 4.31                  |
| 82       | LFSG-02-08 27 03 -R 066 | 18391563               | 4369340  | ND         | 1.51                  |
| 83       | LFSG-02-08 27 03 -R 067 | 18391564               | 4369371  | ND         | 2.67                  |
| 84       | LFSG-02-08 27 03 -R 068 | 18391568               | 4369400  | ND         | 1.84                  |
| 85       | LFSG-02-08 27 03 -R 069 | 18391566               | 4369426  | ND         | 1.45                  |
| 86       | LFSG-02-08 27 03 -R 070 | 18391598               | 4369420  | ND         | 1.67                  |
| 87       | LFSG-02-08 27 03 -R 071 | 18391595               | 4369398  | ND         | 1.81                  |
| 88       | LFSG-02-08 27 03 -R 072 | 18391590               | 4369372  | ND         | 1.88                  |
| 89       | LFSG-02-08 27 03 -R 073 | 18391586               | 4369339  | ND         | 2.16                  |
| 90       | LFSG-02-08 27 03 -R 074 | 18391599               | 4369310  | ND         | 2.55                  |

<sup>a</sup> ND = not detected  
<sup>b</sup> NA = not available

continued

**Table 1.** Bush Valley Screening Sample Results (concluded).

| Grid No. | Sample ID No.           | Actual UTM Coordinates |          | NMOC Conc. | CH <sub>4</sub> Conc. |
|----------|-------------------------|------------------------|----------|------------|-----------------------|
|          |                         | Easting                | Northing |            |                       |
| 91       | LFSG-02-08 27 03 -R 075 | 18391597               | 4369281  | ND         | 8.35                  |
| 92       | LFSG-02-08 27 03 -R 076 | 18391597               | 4369249  | ND         | 2.4                   |
| 93       | LFSG-02-08 27 03 -R 077 | 18391596               | 4369221  | ND         | 1.63                  |
| 94       | LFSG-02-08 27 03 -R 078 | 18391593               | 4369217  | ND         | 2.41                  |
| 95       | LFSG-02-08 27 03 -R 091 | 18391626               | 4369225  | ND         | 3.31                  |
| 96       | LFSG-02-08 27 03 -R 090 | 18391622               | 4369250  | ND         | 2.29                  |
| 97       | LFSG-02-08 27 03 -R 079 | 18391620               | 4369278  | ND         | 7.29                  |
| 98       | LFSG-02-08 27 03 -R 080 | 18391627               | 4369311  | ND         | 5.2                   |
| 99       | LFSG-02-08 27 03 -R 081 | 18391628               | 4369341  | ND         | 2.13                  |
| 100      | LFSG-02-08 27 03 -R 082 | 18391624               | 4369370  | ND         | 1.95                  |
| 101      | LFSG-02-08 27 03 -R 083 | 18391627               | 4369400  | ND         | 2.69                  |
| 102      | LFSG-02-08 27 03 -R 084 | NA                     | NA       | NA         | NA                    |
| 103      |                         | NA                     | NA       | NA         | NA                    |
| 104      | LFSG-02-08 27 03 -R 085 | 18391652               | 4369370  | ND         | 2.88                  |
| 105      | LFSG-02-08 27 03 -R 086 | 18391650               | 4369339  | ND         | 2.06                  |
| 106      | LFSG-02-08 27 03 -R 087 | 18391656               | 4369308  | ND         | 2.32                  |
| 107      | LFSG-02-08 27 03 -R 088 | 18391658               | 4369281  | ND         | 2.15                  |
| 108      | LFSG-02-08 27 03 -R 089 | 18391654               | 4369252  | ND         | 2.34                  |

<sup>a</sup> ND = not detected<sup>b</sup> NA = not available

## 4.2 Hot Spot and Homogeneity Determinations

The screening data collected were used for two analyses. The first was for a hot spot analysis, which was done by importing the screening data set into a graphical contouring software package (Surfer) to produce concentration contours that were layered over an aerial photograph of the site. This method allowed for a visual determination of where the higher concentrations were recorded during the screening analysis and allowed for the data set to be divided into two data sets based on the contours derived from these data. This population division was used as part of the homogeneity determinations. NMOC was only detected from the passive vents and gas monitoring probes. Therefore, methane measurements were used to identify hot spots and to determine the number of near homogeneous subdivisions required to characterize the landfill surface. Figures 5 and 6 show the concentration contours for both the NMOC and methane data that were recorded during the screening analysis.

The second analysis provided a determination of the homogeneity of the site, which was done through statistical means by using the Wilcoxon Rank Sum statistical method. This method determines whether two data sets are statistically similar (i.e., homogeneous). If the two sets are deter-

mined to be similar, then the two populations are determined to be one nearly homogeneous area. But if the two data sets are determined not to be statistically similar, then the two sets are said to be two non-homogeneous areas. The hot spot analysis was used to determine if there appeared to be two distinct population sets. For this site, it was shown that there existed four nearly homogeneous areas. Appendix B contains the Wilcoxon data analysis. As was mentioned earlier, all non-detect and duplicate measurements were excluded from this statistical analysis.

## 4.3 Sampling Activities

Sampling activities included passive vent gas sampling, perimeter well gas sampling, and ambient air sampling. Figure 7 shows all the sampled locations. Each of the sampling methods will be discussed further in the following subsections.

### 4.3.1 Landfill Soil Gas Sampling via Passive Vents

As part of this demonstration, landfill soil gas samples were collected for the Chemicals of Potential Concern (COPC). The samples were collected using a Summa canister and were sent to an off-site commercial laboratory for analysis. Field instrumentation was used at each of the designated sampling locations to measure fixed gases encompassing carbon dioxide (CO<sub>2</sub>), nitrogen (N<sub>2</sub>), and oxygen (O<sub>2</sub>). The fixed gas concentration values were used to verify that LFG was being collected. As per the guidance, it was determined that three landfill soil gas samples should be collected in each of the four homogeneous areas, yielding a total of 12 landfill soil gas sampling being required. However, because this site has a flexible membrane already in place, it was determined that using a slam-bar on this site was not feasible in order to prevent damage to the engineered cover and to avoid the complexities of ensuring proper repair that slam-bar use would necessitate. Instead, it was determined that LFG samples would be collected only at the installed passive gas vents (GVW). The duplicate sample was collected at GVW 1. For all GVW locations, a brass sampling valve was installed on each vent, and the vent exit was sealed to minimize leakage during sampling activities. Laboratory analytical results can be found in Appendix C.

### 4.3.2 Perimeter Well Gas Sampling

As a further demonstration, sampling was conducted at all perimeter wells and temporary perimeter wells. These perimeter well locations were designated as gas monitoring probes (GMPs) and temporary monitoring probes (TMPs).

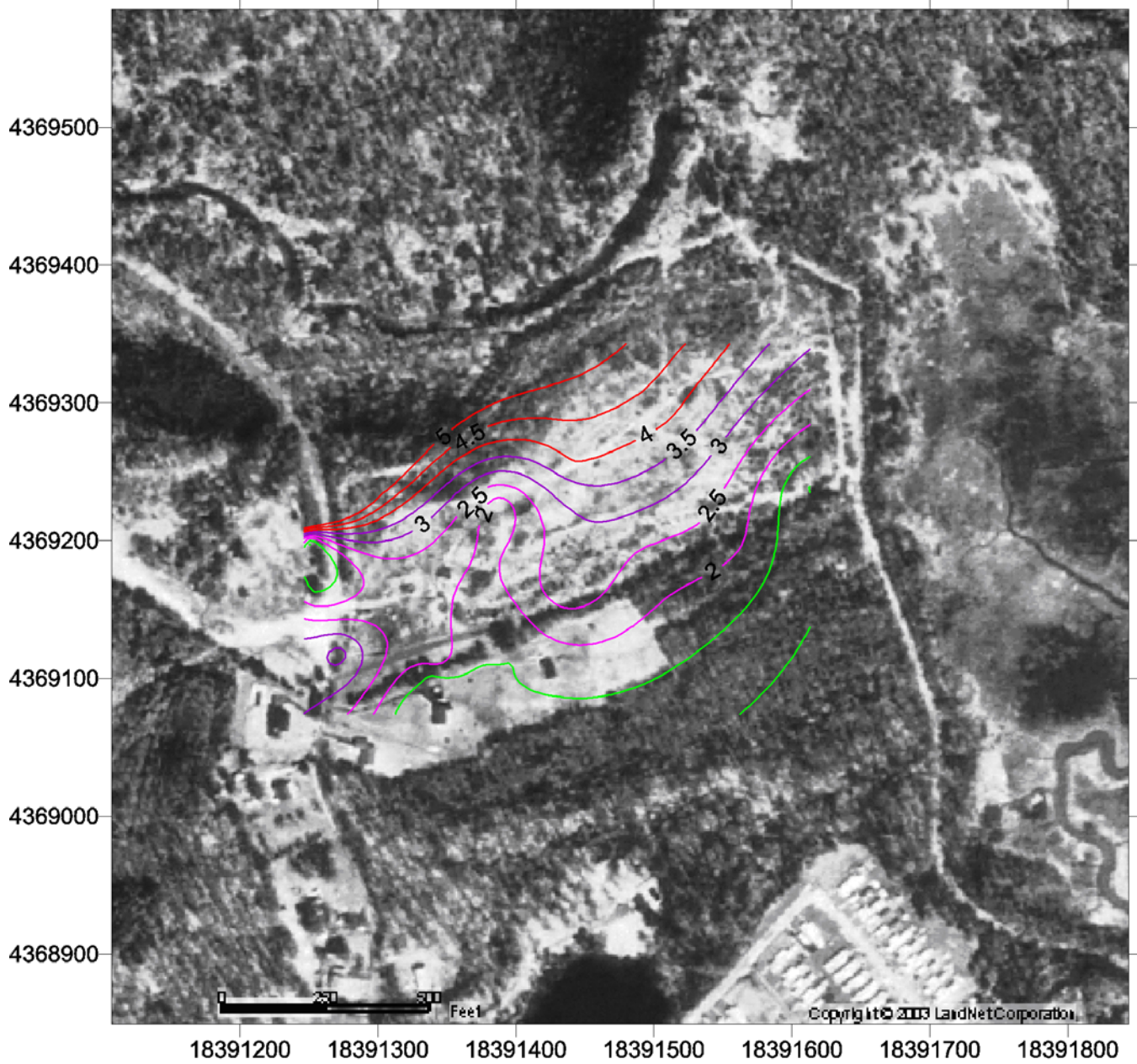


Figure 5. Measured Screening Results for NMOCs (ppm).



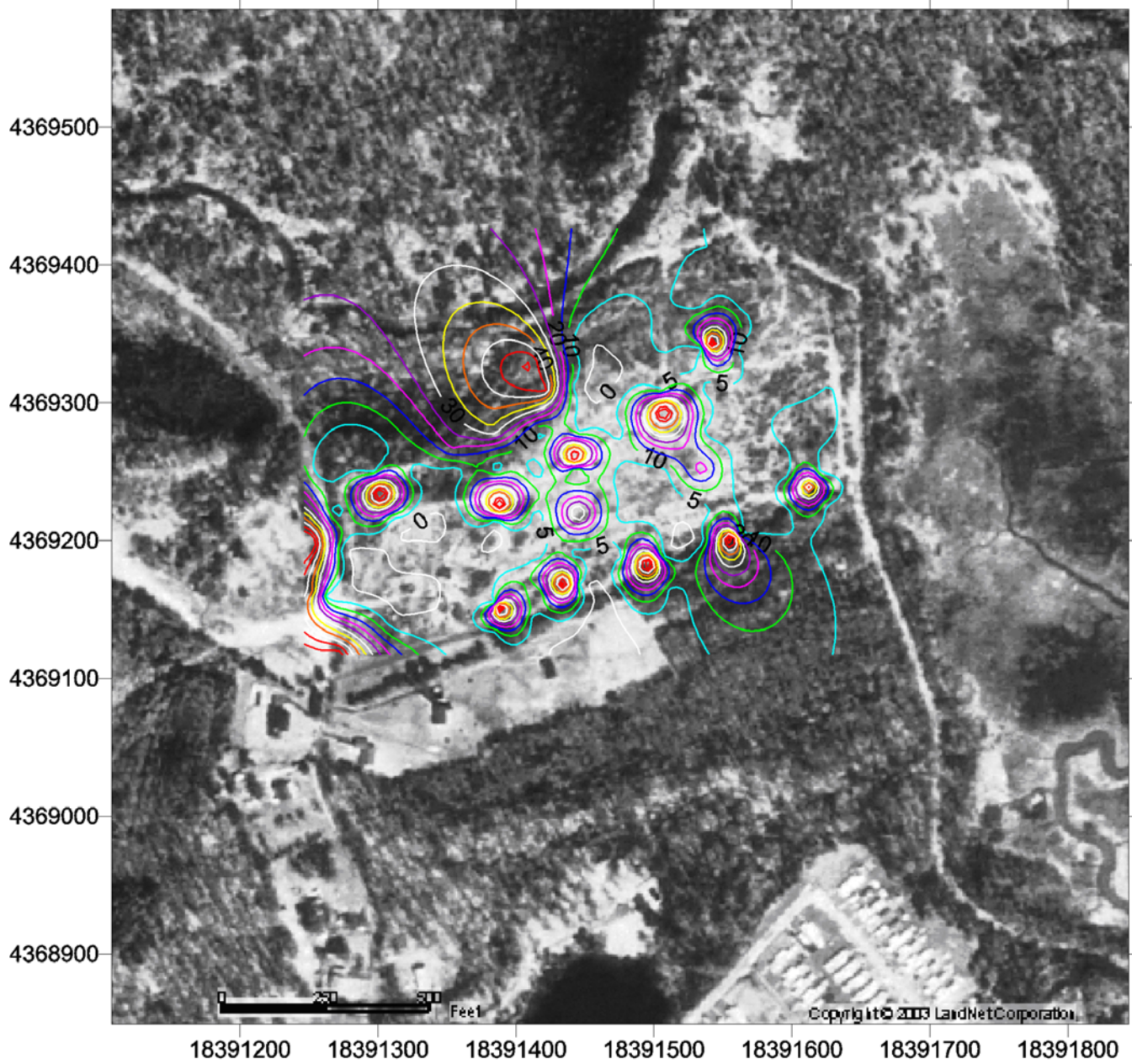


Figure 6. Measured Screening Results for Methane (ppm).

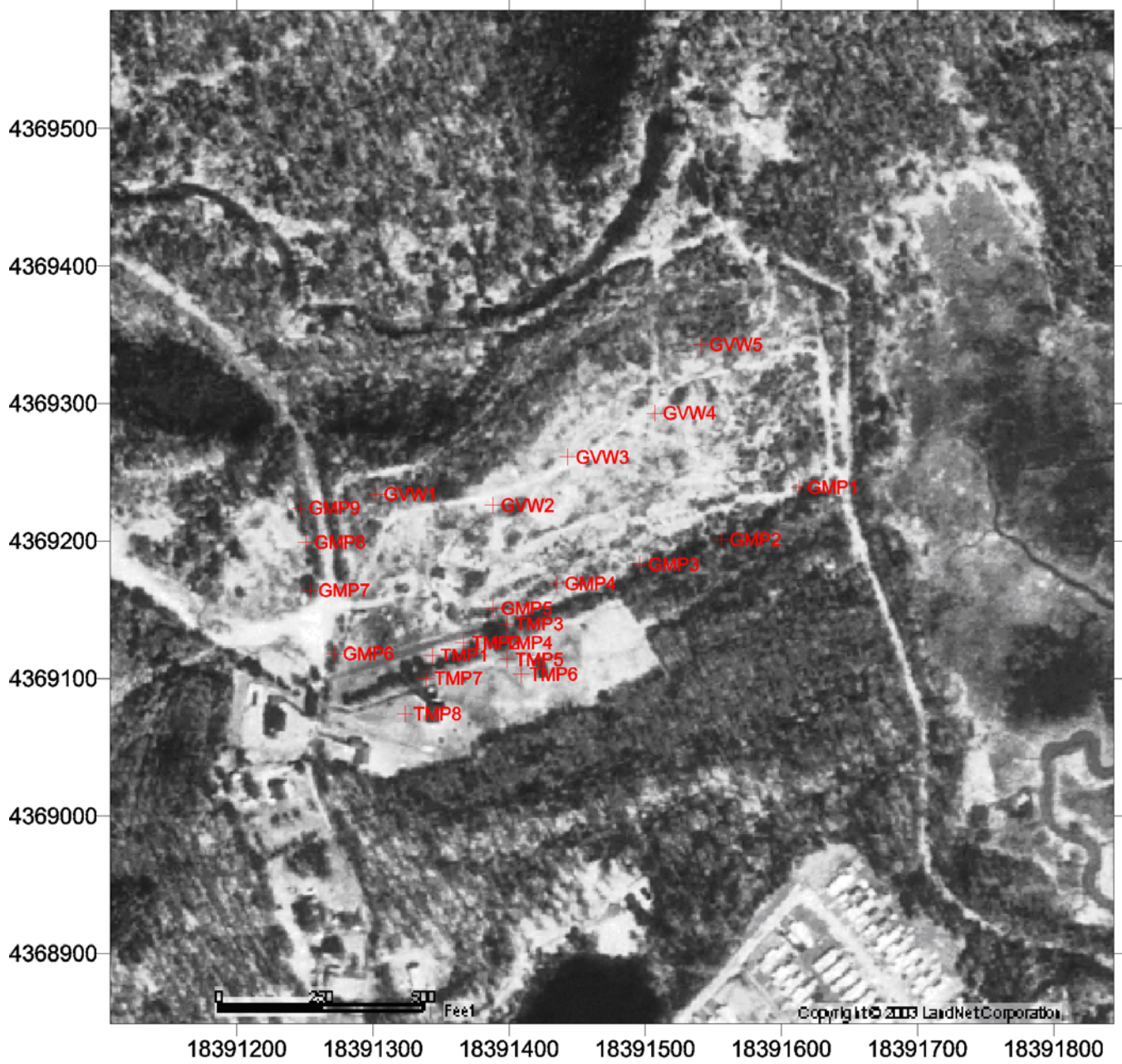


Figure 7. Bush Valley Sampling Locations.

For this site demonstration, sampling was conducted at all 17 of the perimeter wells using the previously installed sampling valves. All 17 wells were located in close proximity to off-site receptors (i.e., residential dwellings). At each of these locations, Summa canisters were used to collect the samples and analyzed for COPC, fixed gases, and methane. The Summa canister sampling rate was set to approximately 0.1 L/min to minimize the potential for ambient air leakage. Based on the fixed gas concentration data, it would appear that there is significant ambient air leakage associated with GMP-1, TMP-2, GMP-5, TMP-3, and TMP-5. The data from these probes was excluded from additional data analysis. It was observed that several of these excluded locations have elevated NMOC concentration even with the ambient air dilution. All probes had been installed for more than 7 months and some for as many as 3 years. It would appear that the grout and soils surrounding these probes had dried out and shrunk, allowing ambient air to leak into the annulus. This was confirmed by the field instrumentation readings taken at each of the sampling locations prior to initiating sampling. These field instrumentation readings demonstrated the presence of landfill gases via oxygen readings at levels of 0.4 percent. This theory is further supported by the laboratory results of samples GMP-6 and TMP5 and by comparing them to the duplicate samples collected there. In both instances these laboratory results were nearly identical. For these reasons and because all of the existing probes were sampled, there is sufficient data to continue with this illustration of the guidance document. Given these circumstances, it is desirable that a procedure to verify that existing seals have integrity be developed and included in the guidance manual. One QA/QC sample was collected at GMP 6 and TMP 5 during each of the sampling locations sets (GMP and TMP). Laboratory analytical results can be found in Appendix C.

### 4.3.3 Ambient Air Sampling

Sampling was conducted of the ambient air at each of the passive vent locations (GVW). Five samples were collected using a Summa canister. The Quality Assurance Project Plan (QAPP) and field activity plan required one duplicate Summa canister sample be collected as a QA/QC validation; this duplicate sample was collected at GVW 4. Laboratory analytical results can be found in Appendix C.

## 4.4 QA and Data Evaluation

The primary purpose of this project was to establish the usefulness of the guidance document and to identify areas that need to be clarified and/or expanded. The field efforts are a means to collect the information needed to implement the procedures included in the guidance. A second-

ary purpose of the project is to provide the RPM's with information that will allow them to determine if LFG controls are needed and if compliance with Applicable Relevant and Appropriate Requirements (ARARs) has been achieved. Data quality objectives are a starting point of an interactive process, and they do not necessarily constitute definitive rules for accepting or rejecting results. The measurement quality objectives have been defined in terms of standard methods with accuracy, precision, and completeness goals.

Uncertainty associated with the measurement data is expressed in terms of accuracy and precision. The accuracy of a single value contains the component of random error in a measurement and the component of systematic error, or bias. Accuracy thus reflects the total error for a given measurement. Precision values represent a measure of only the random variability for replicate measurements. In general, the purpose of calibration is to eliminate measurement bias. However, inefficient analyte recovery or matrix interferences can contribute to sample bias, which is typically assessed by analyzing matrix spike samples. At very low levels, blank effects (contamination or other artifacts) can also contribute to low-level bias. The potential for bias is evaluated by using method blanks. Instrument bias is evaluated by using control samples.

### 4.4.1 Accuracy

Accuracy of laboratory results has been assessed for compliance with the established QC criteria using the analytical results of method blanks, reagent/preparation blank, matrix spike/matrix spike duplicate samples, and field blanks. The percent recovery (%R) of matrix spike samples is calculated using

$$\%R = \frac{A - B}{C} \times 100$$

Where  $A$  = the analyte concentration determined experimentally from the spiked sample,  
 $B$  = the background level determined by a separate analysis of the unspiked sample, and  
 $C$  = the amount of the spike added.

The laboratory detected 9.4 ppbv acetone in a trip blank. This value is less than five times the value found in the sample results. The minimum and maximum recovery for the entire set of laboratory control samples was greater than 94 and less than 152 percent. Out of 159 values, 154 were within the QC limits, and the data is deemed acceptable. The 4-bromofluorobenzene surrogate spike recovery was

outside of the upper range for 56 field samples. The maximum 4-bromofluorobenzene surrogate spike recovery was 152 percent. The high 4-bromofluorobenzene surrogate recovery is indicative of matrix interference, and the results may be biased on the high side. All other spike surrogate recovery values were within the target range of 70 to 130 percent. The concentration of hexane in sample number 15742 exceeded the linear calibration range and the value is assumed to be a lower end estimate.

#### 4.4.2 Precision

The analytical results between matrix spike and matrix spike duplicate (MS/MSD) analyses for each COPC have been assessed. The relative percent difference (RPD) was calculated for each pair of duplicate analysis using

$$RPD = \frac{S - D}{(S + D)/2} \times 100$$

Where S = first sample value (original or MS value) and D = second sample value (duplicate or MSD value).

Methyl ethyl ketone (MEK) was reported in one of the duplicate ambient air samples but not both. Chloroethane was reported in one of the duplicate GMP6 samples but not both. MEK, xylene, and dichloroethane (DCA) were reported for one of the duplicate TMP5 samples but not

the other. The RPD for the duplicate samples ranged from -0.6 to 28.5, indicating that the laboratory was capable of reproducing the analytical results. Acetone was reported in the trip blank at 9.4 ppbv. Acetone in the LFG samples ranged from non-detect to 750 ppbv. Acetone is a common laboratory contaminant, and samples with a concentration less than five times that in the method/trip blank should be considered as estimates.

#### 4.4.2 Completeness

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount that was expected under normal conditions. The sampling and analytical goal for completeness is 80 percent or more for all samples tested. The percent completeness was calculated by

$$Completeness(\%) = \frac{\left( \text{number of valid data} \right)}{\left( \text{number of samples collected} \right)} \times 100$$

*(for each parameter analyzed)*

Seventy-three percent of the targeted data was collected and validated. This is less than data quality objective of greater than 80 percent. The data quality objective was not achieved because of the air leakage problem discussed in Section 4.3.2.



## Section 5. Estimation of Landfill Gas Emissions

With all samples collected and analyzed it is possible to estimate the air impact of this site through the methods described in the guidance. For the purpose of this demonstration, it was determined that only select COPCs commonly found in LFG would be fully characterized. Table 2 provides a list of those COPCs commonly found in LFG and that are considered in this demonstration. Figures 8 through 22 show the concentration isopleths of all COPCs with detected concentrations. These figures provided a visual presentation of the laboratory results that were used to further understand the dynamics of this landfill and, using the Wilcoxon statistical analysis detailed in Appendix B, to further quantify the division of this landfill into four homogeneous parcels, which are shown in Figure 23. Table 3 provides the analytical results for the four landfill parcels. For each parcel, the data were analyzed, and the 90th percentile concentrations were determined. Table 4 provides the 90th percentile values of the COPCs for the various parcels.

**Table 2.** COPCs Commonly Found in LFG<sup>a,b</sup>

---

|   |
|---|
| 1,1,1-Trichloroethane (methyl chloroform) |
| 1,1-Dichloroethene (vinylidene chloride)  |
| 1,2-Dichloroethane (ethylene dichloride)  |
| Acrylonitrile                             |
| Benzene                                   |
| Carbon Tetrachloride                      |
| Chlorobenzene                             |
| Chloroethane (ethyl chloride)             |
| Chlorofluorocarbons                       |
| Chloroform                                |
| Dichlorobenzene                           |
| Ethylene Dibromide                        |
| Hydrogen Sulfide                          |
| Mercury                                   |
| Methylene Chloride                        |
| Perchloroethylene (tetrachloroethylene)   |
| Toluene                                   |
| Trichloroethylene (trichloroethene)       |
| Vinyl Chloride                            |
| Xylenes                                   |

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<sup>a</sup> Constituents associated with carcinogenic and chronic noncarcinogenic health effects that are routinely measured

<sup>b</sup> Source: EPA, 1997

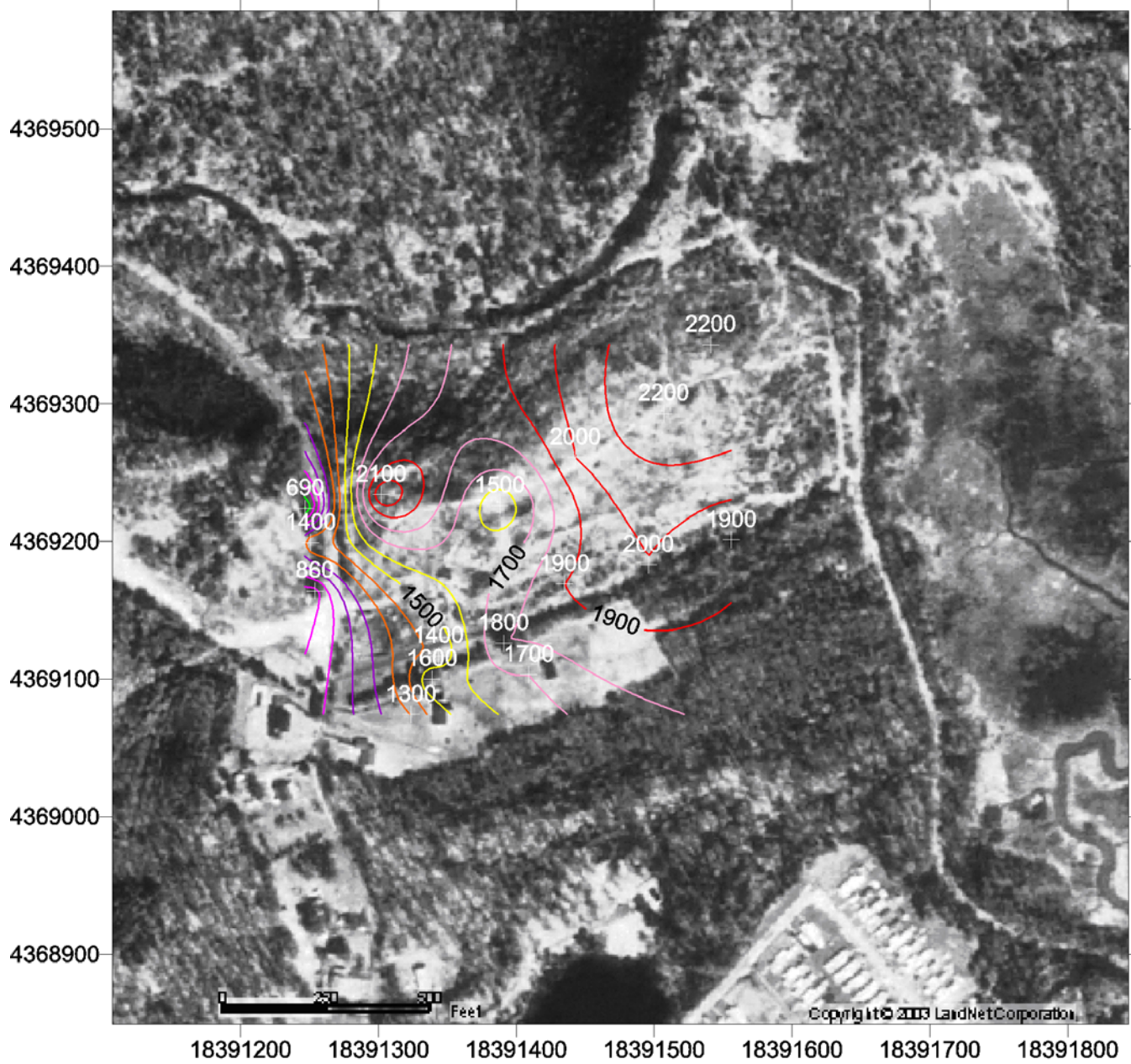


Figure 8. NMO Concentration Isopleths (ppmvC) from Summa Sampling

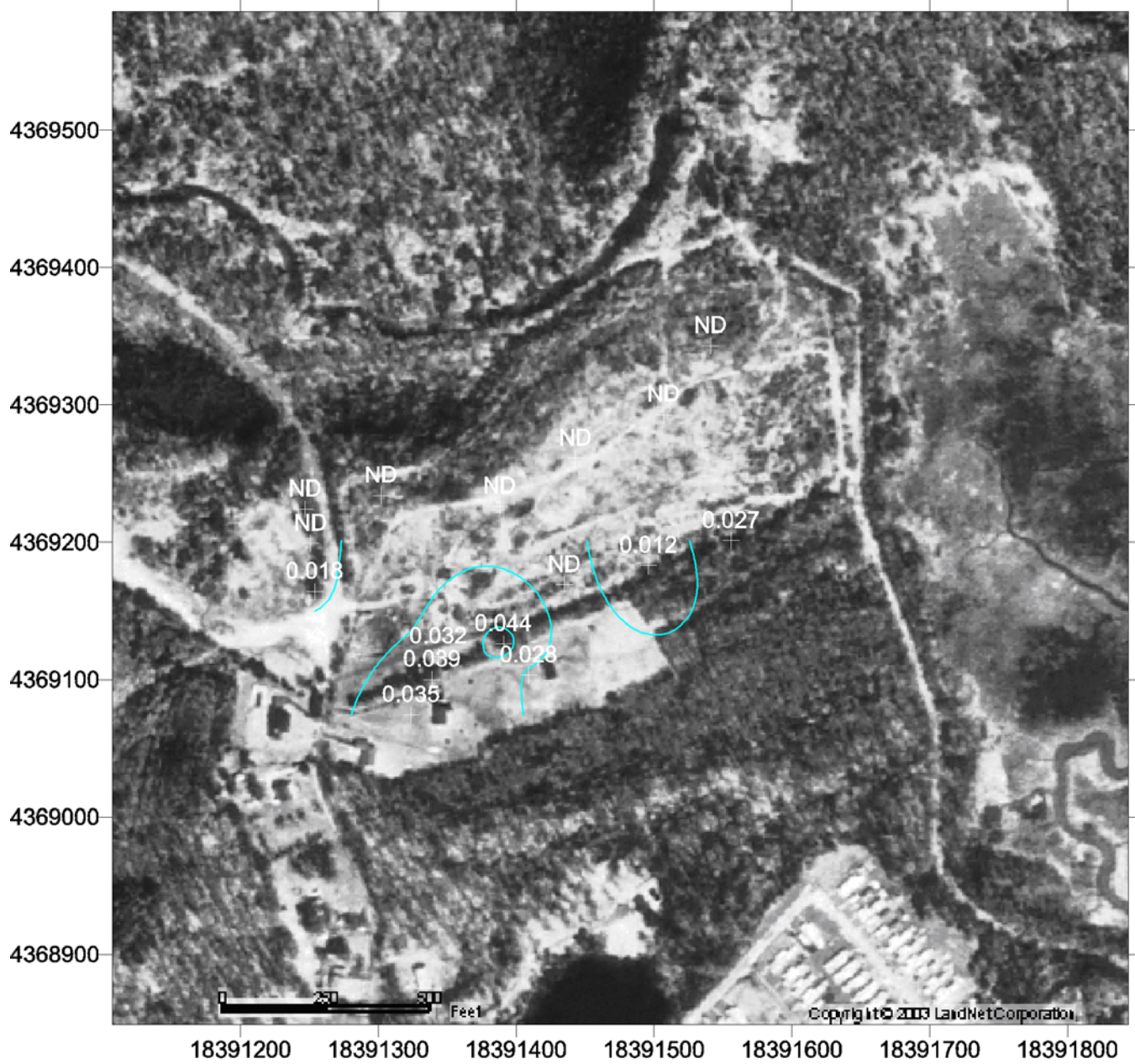


Figure 9. 1,1-Dichloroethene Concentration Isopleths (ppmv) from Summa Sampling



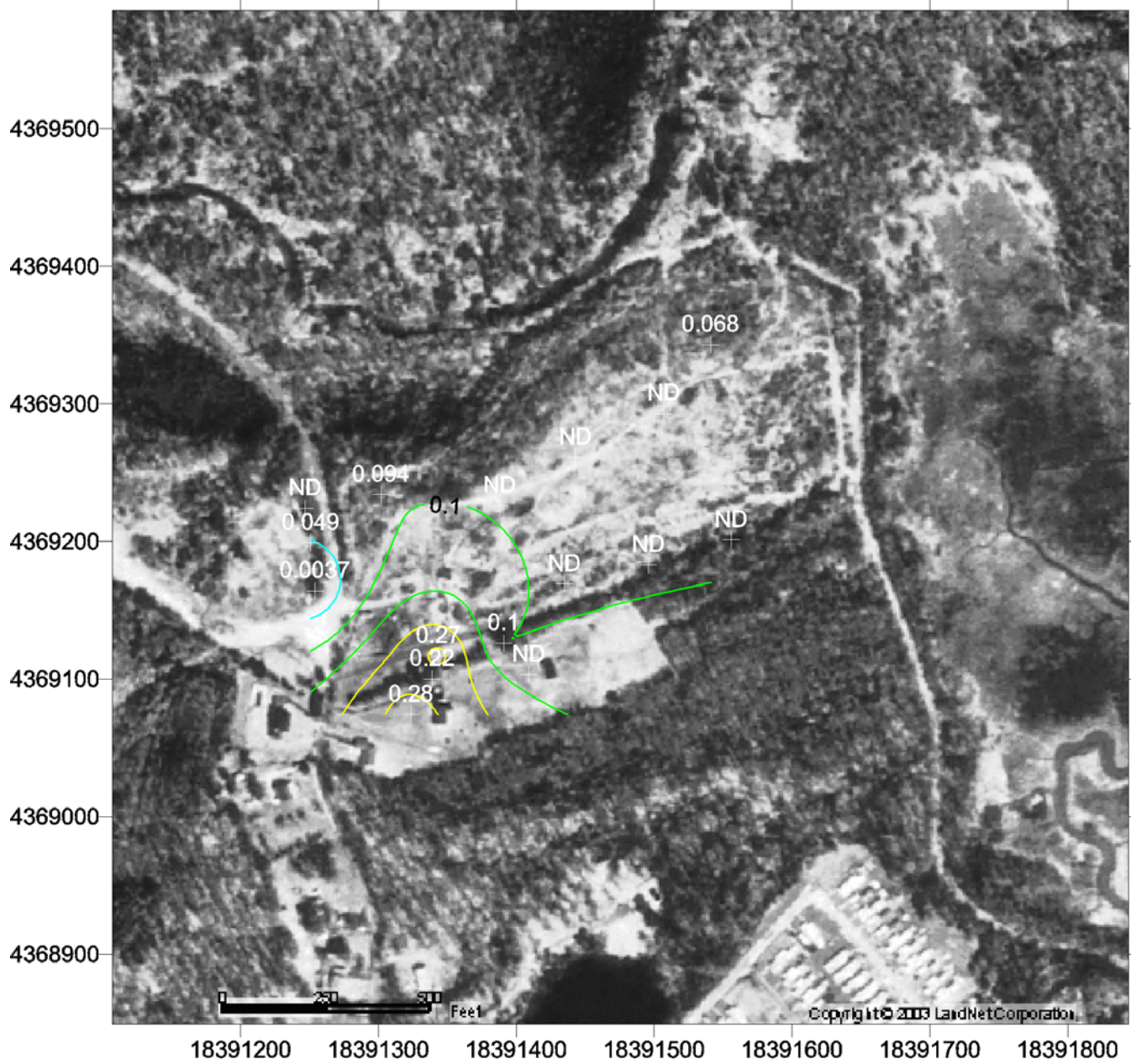


Figure 10. 1,2-Dichloroethane Concentration Isopleths (ppmv) from Summa Sampling

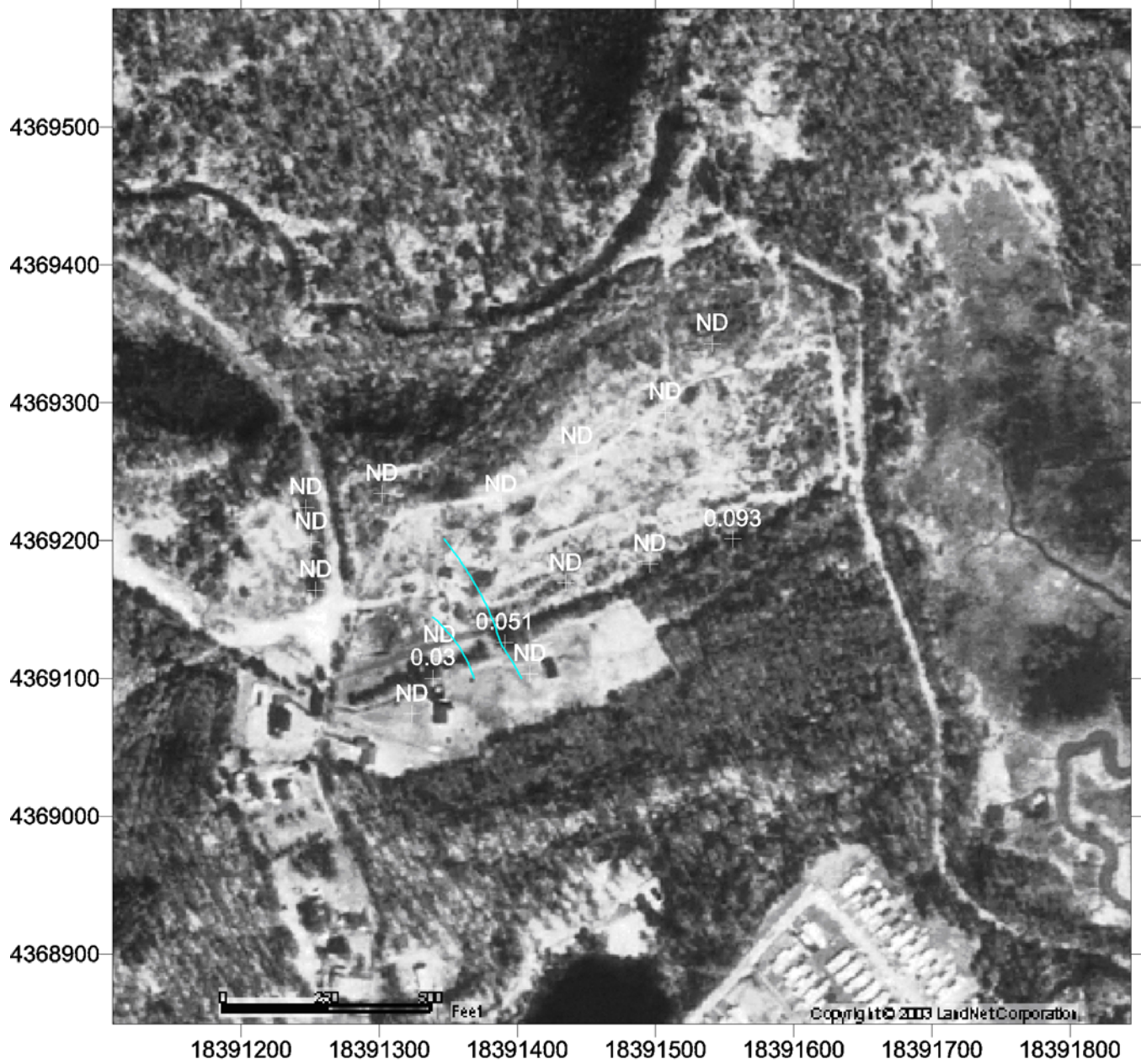


Figure 11. 1,1,1-Trichloroethane Concentration Isopleths (ppmv) from Summa Sampling

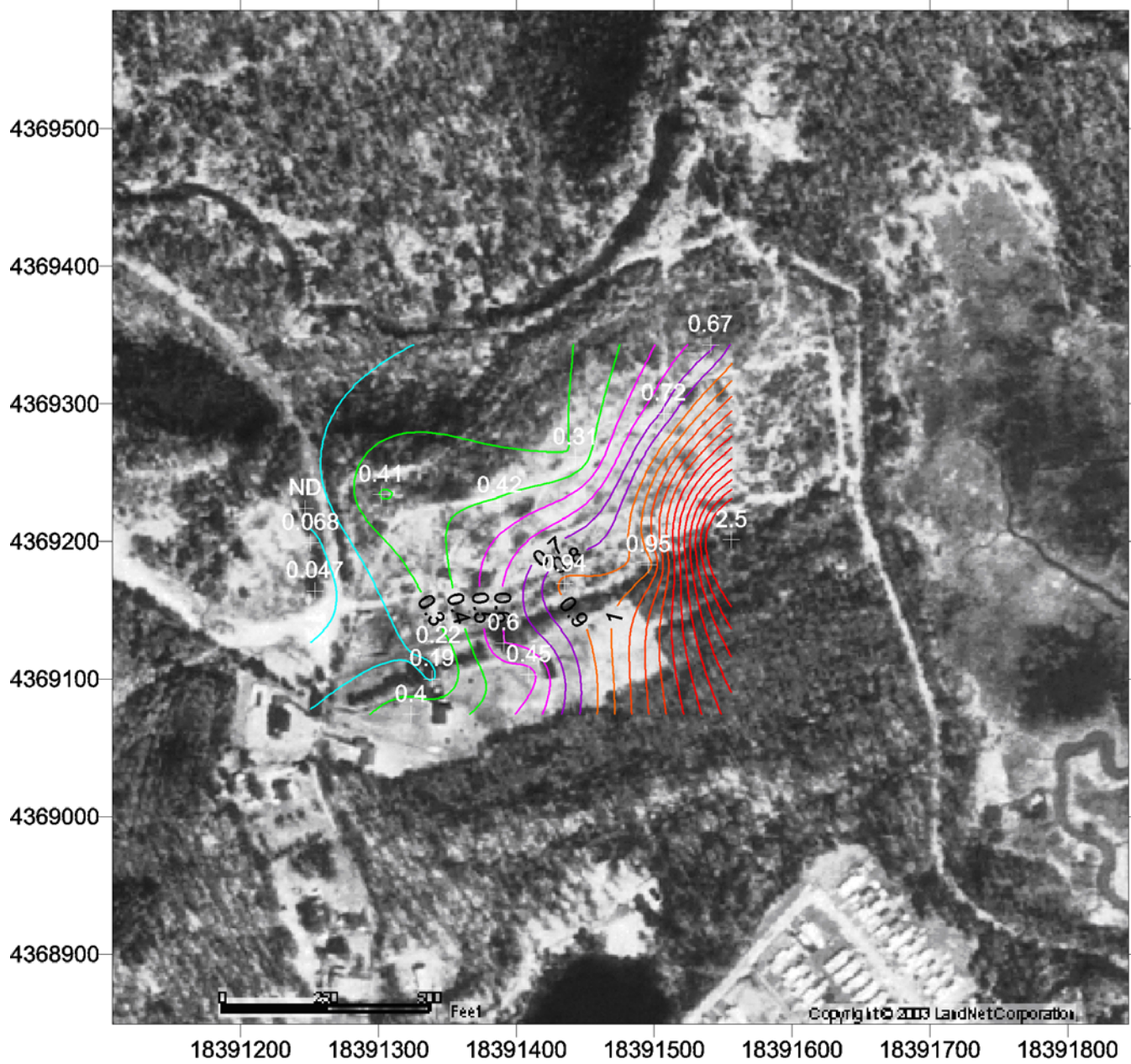


Figure 12. Benzene Concentration Isoleths (ppmv) from Summa Sampling

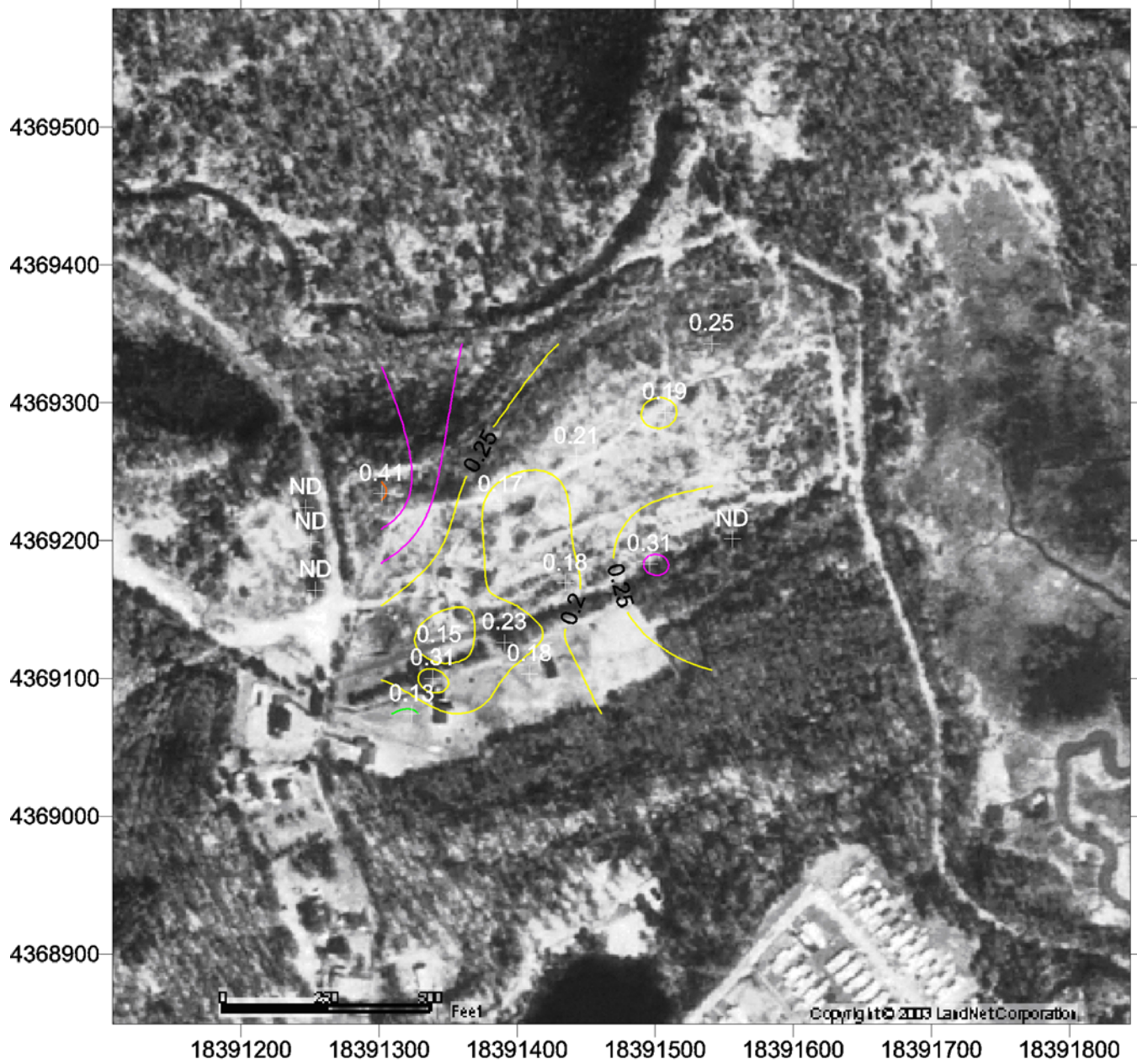


Figure 13. Chlorobenzene Concentration Isopleths (ppmv) from Summa Sampling

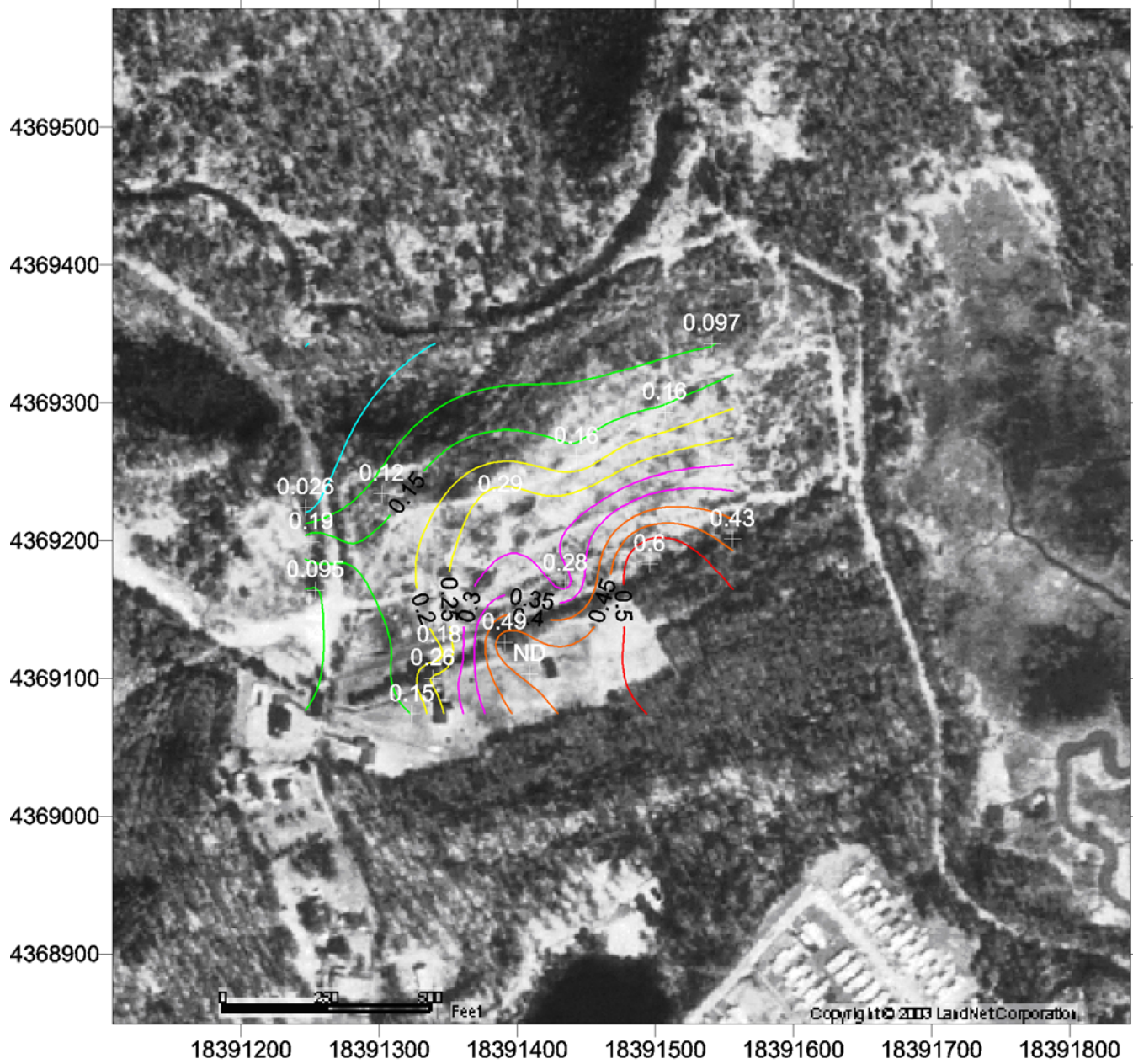


Figure 14. Chloroethane Concentration Isopleths (ppmv) from Summa Sampling

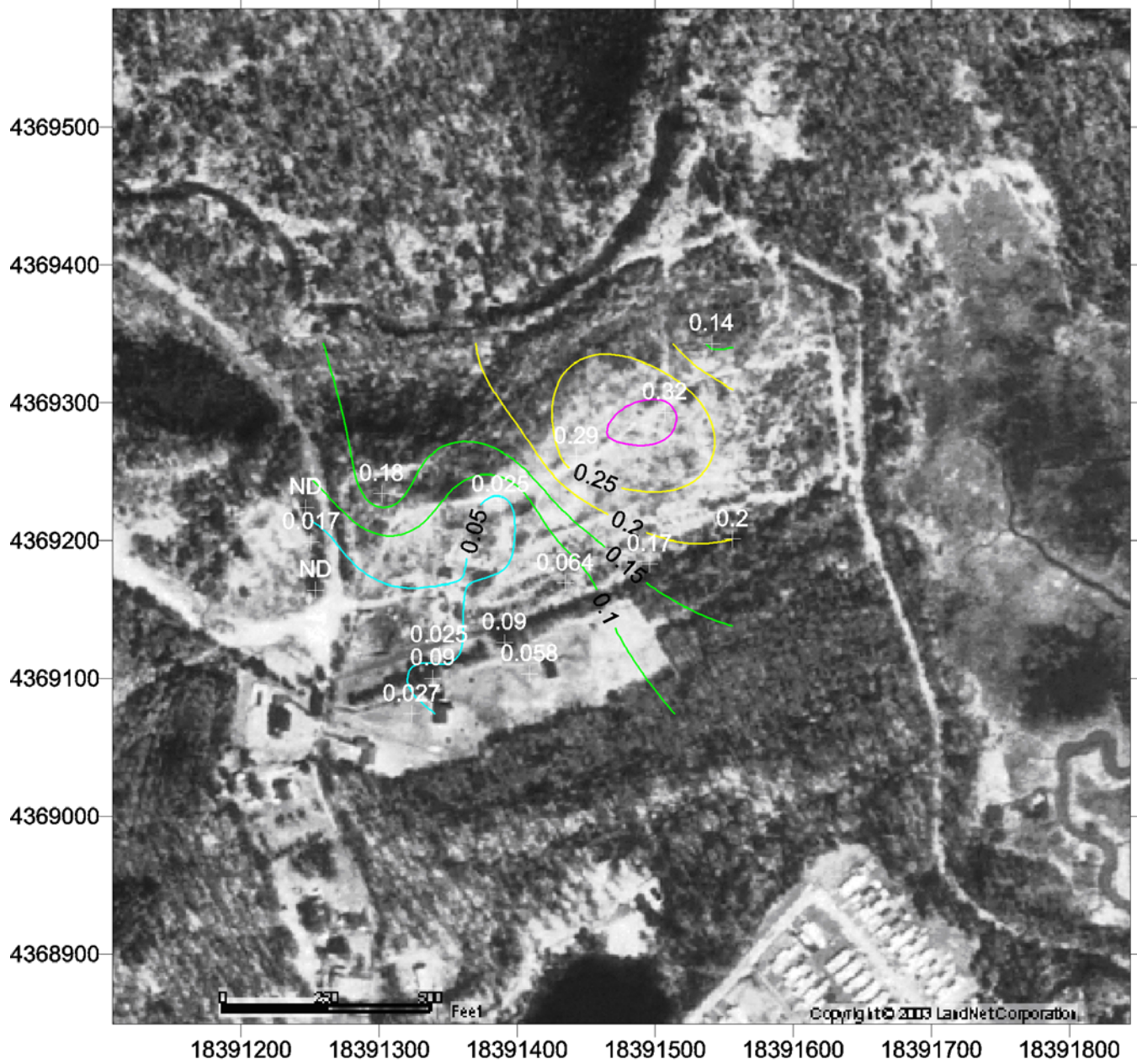


Figure 15. 1,4-Dichlorobenzene Concentration Isopleths (ppmv) from Summa Sampling

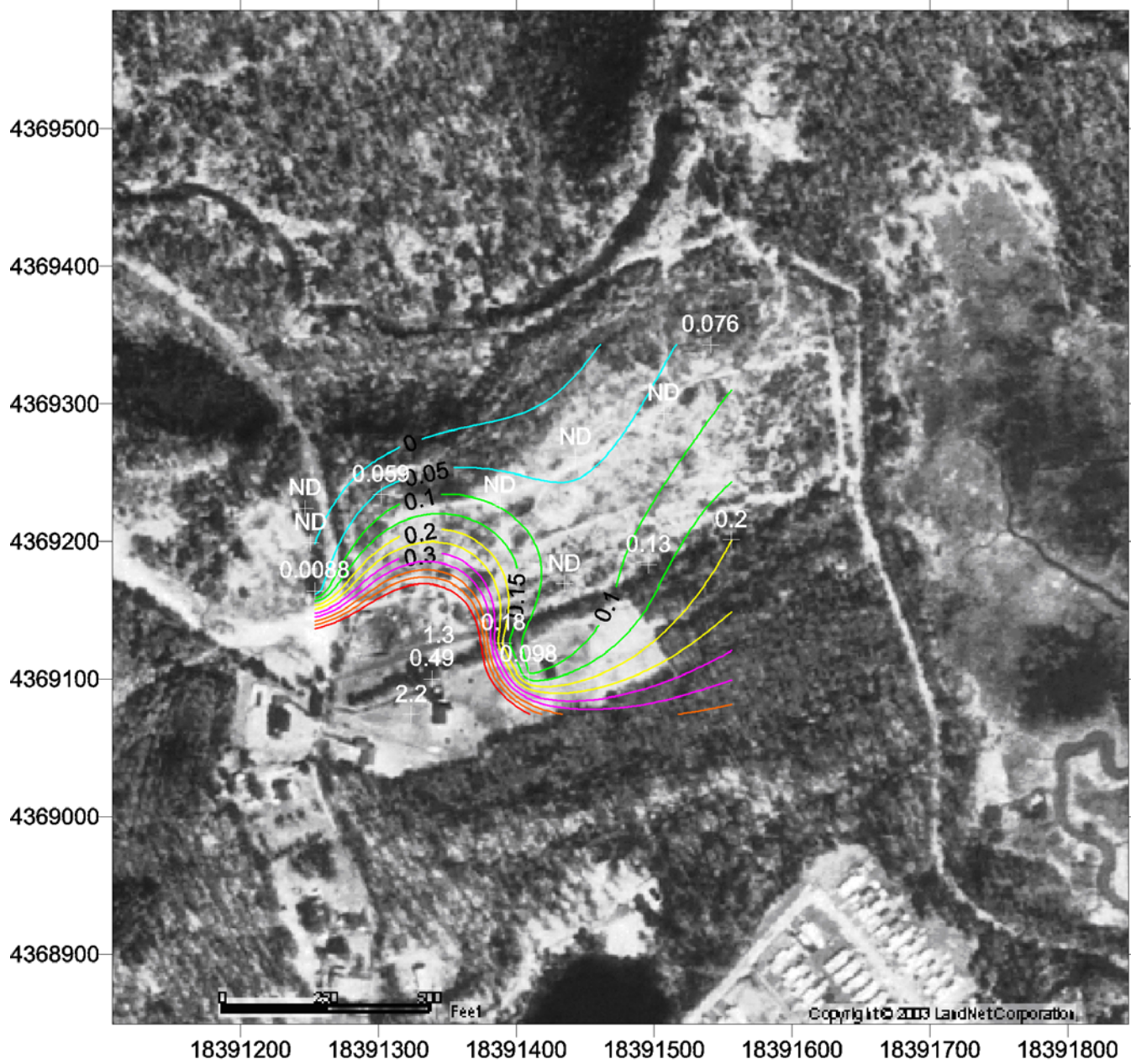


Figure 16. Methylene Chloride Concentration Isoleths (ppmv) from Summa Sampling

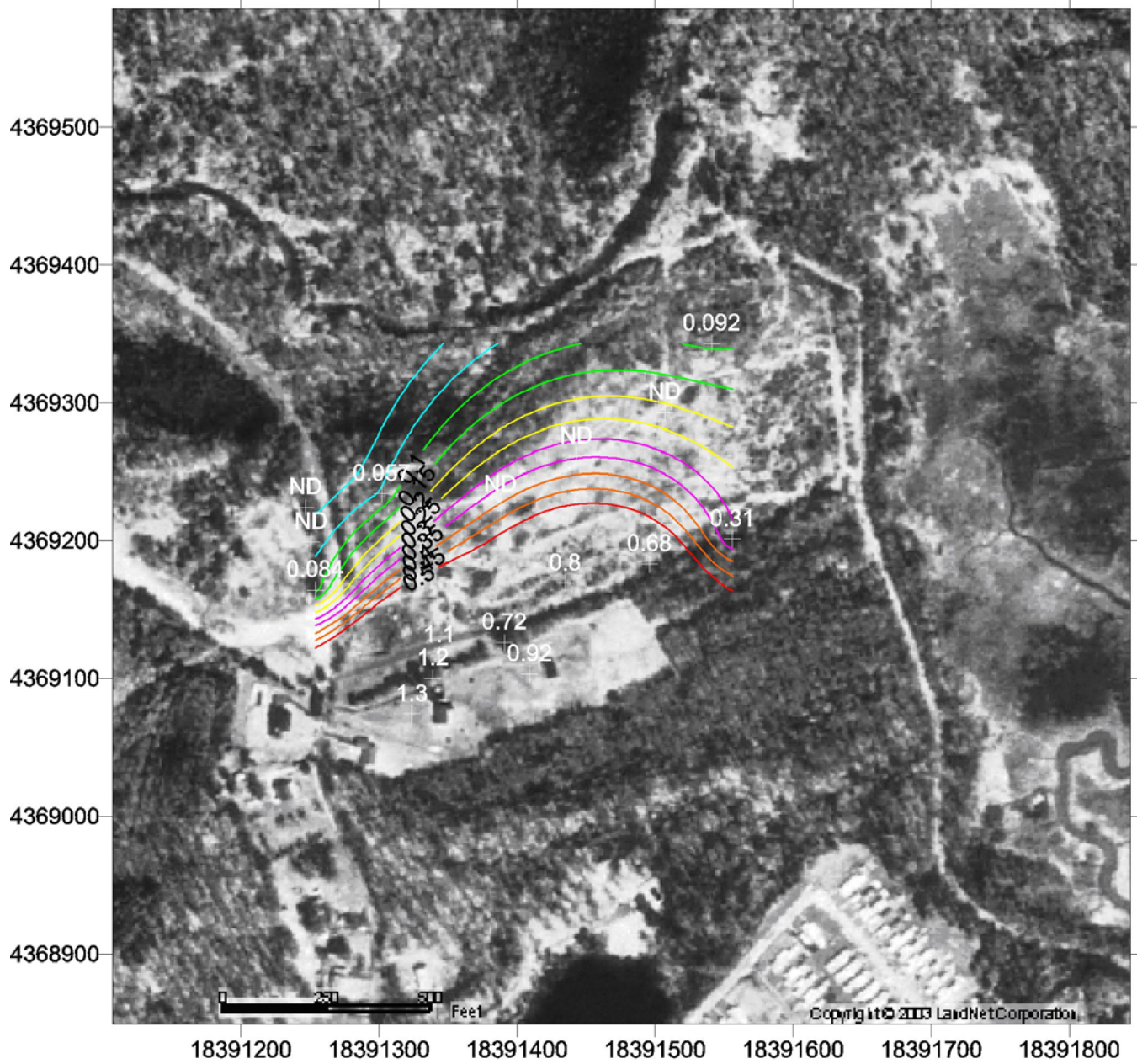


Figure 17. Tetrachloroethene Concentration Isopleths (ppmv) from Summa Sampling



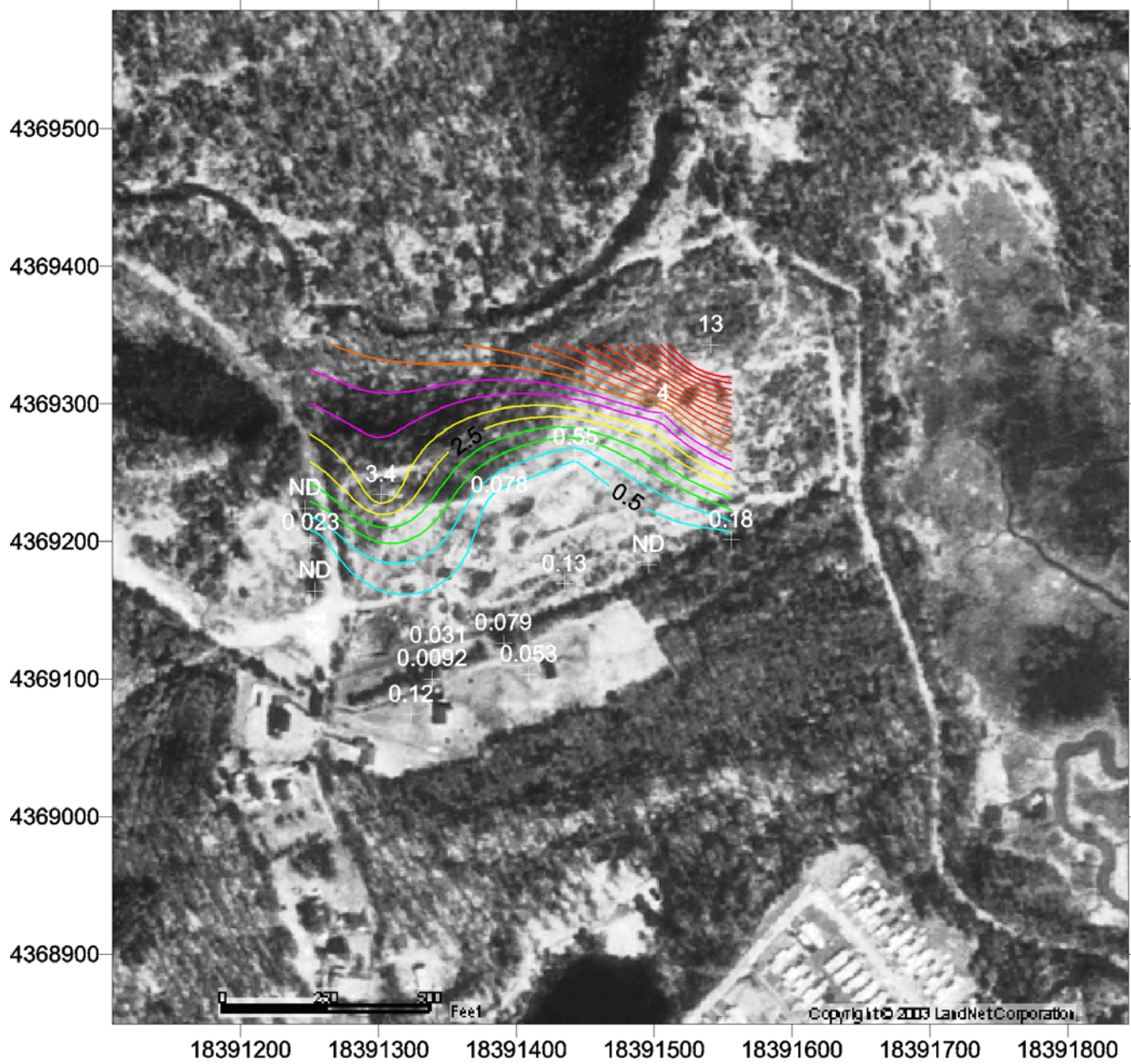


Figure 18. Toluene Concentration Isopleths (ppmv) from Summa Sampling

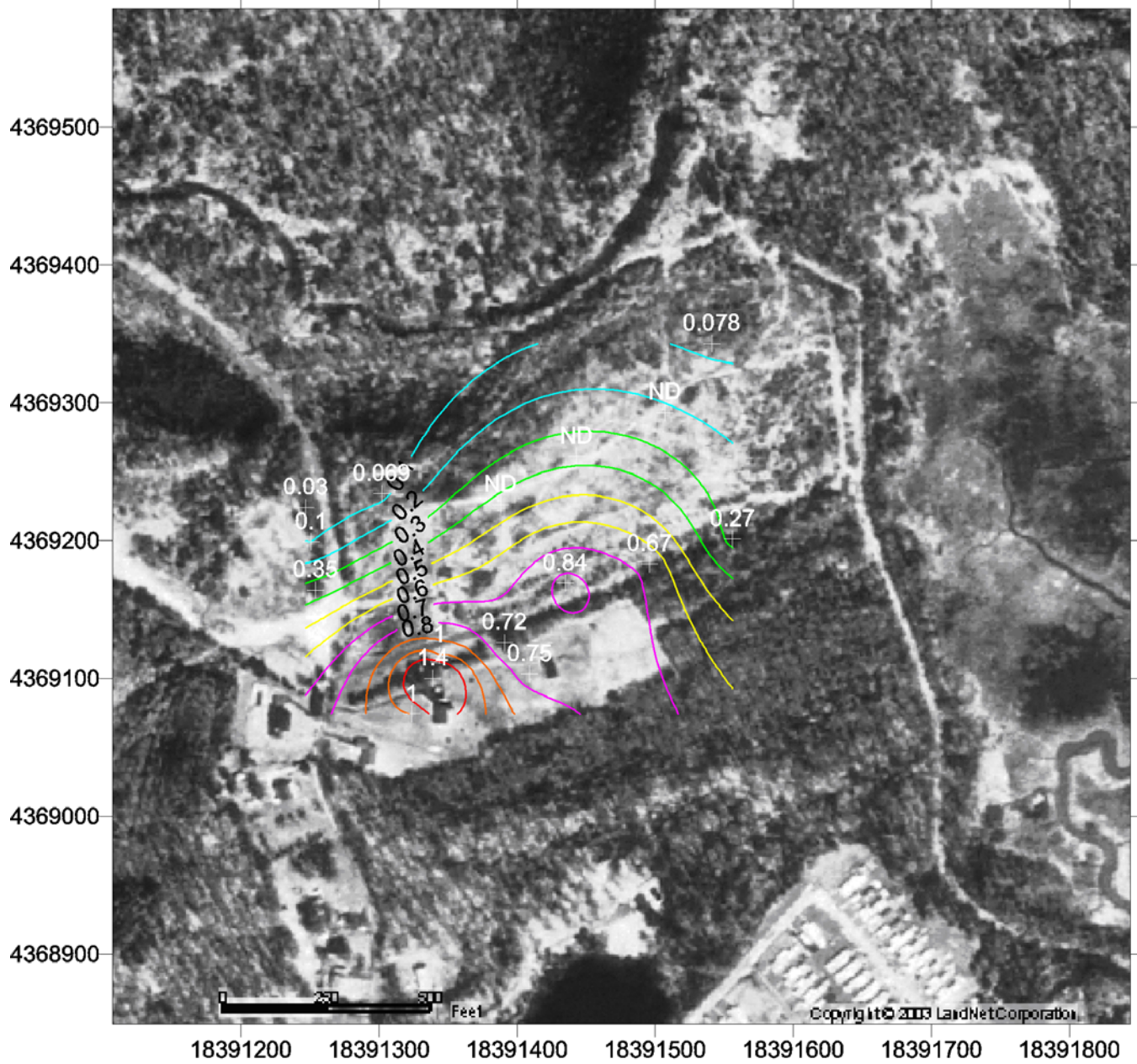


Figure 19. Trichloroethene Concentration Isoleths (ppmv) from Summa Sampling

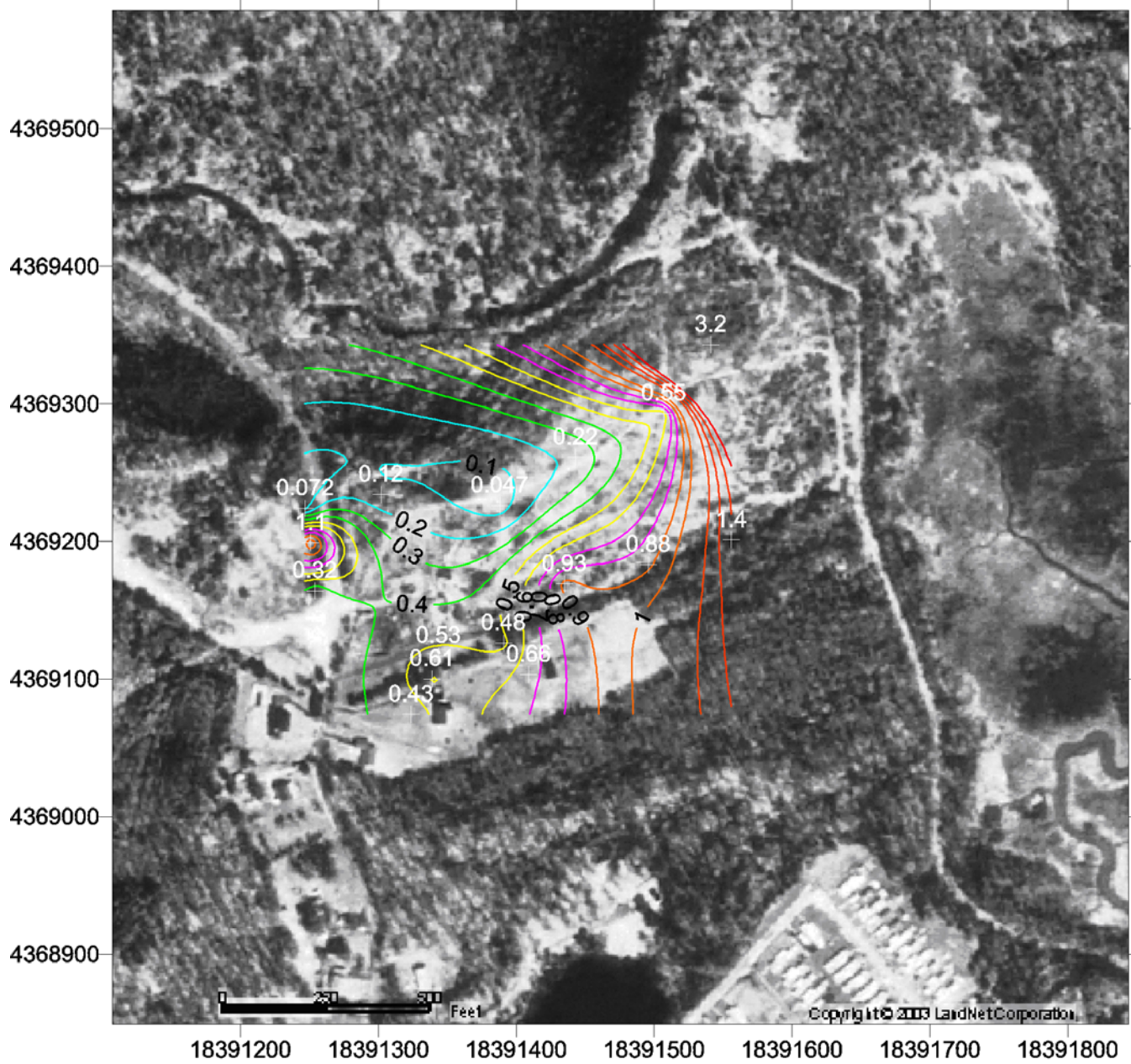


Figure 20. Vinyl Chloride Concentration Isoleths (ppmv) from Summa Sampling

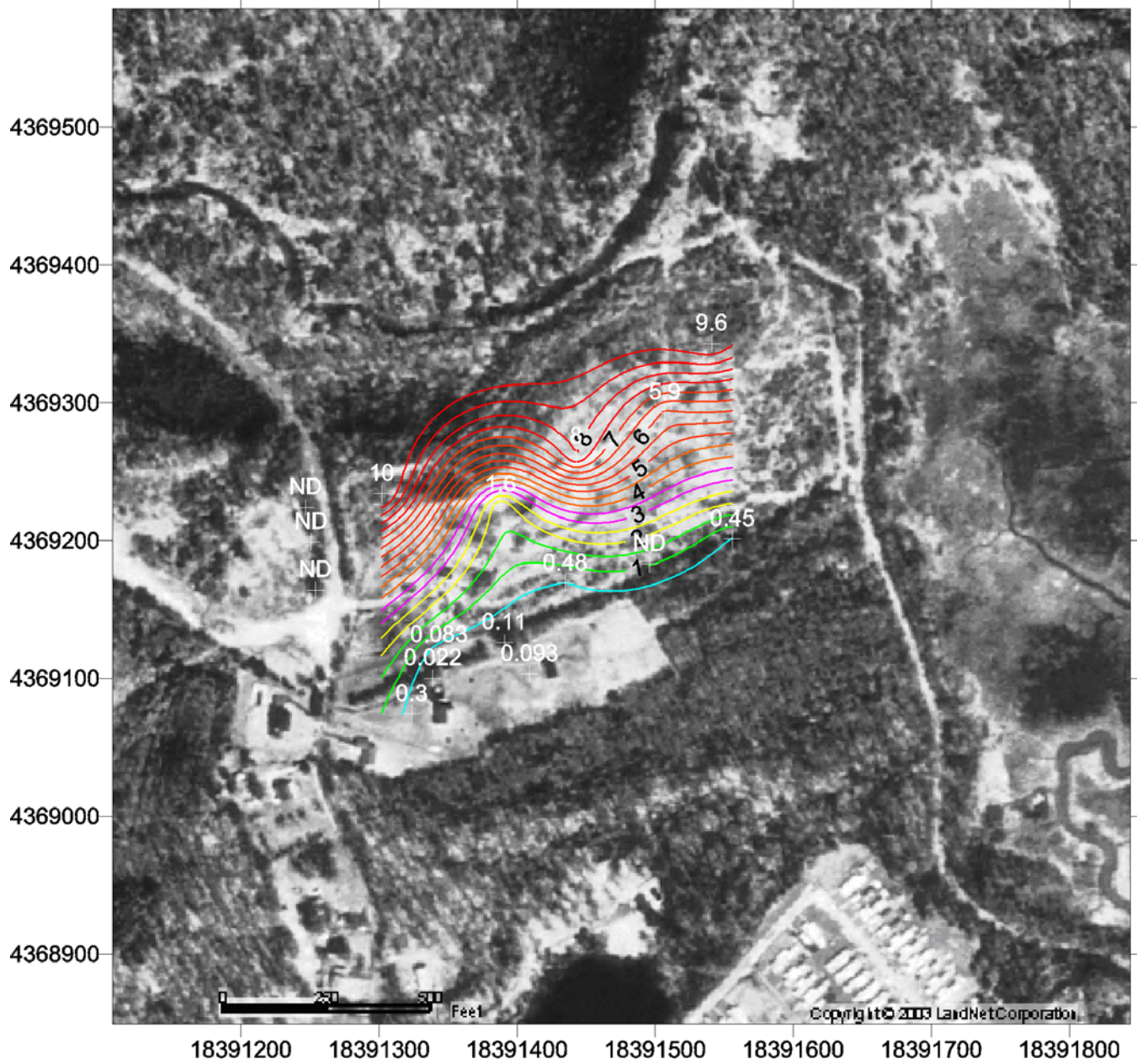


Figure 21. m,p-Xylene Concentration Isoleths (ppmv) from Summa Sampling

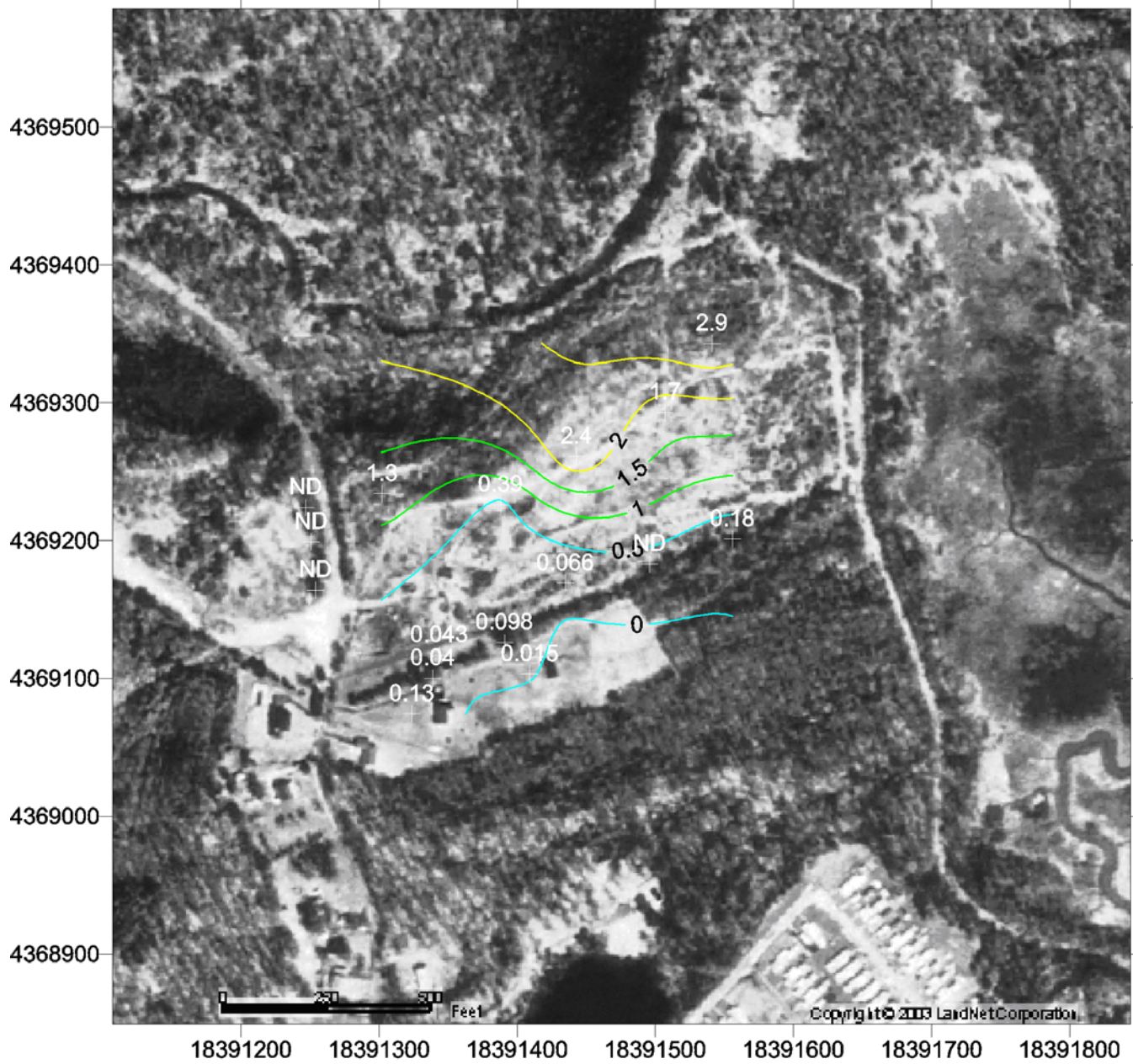


Figure 22. o-Xylene Concentration Isopleths (ppmv) from Summa Sampling

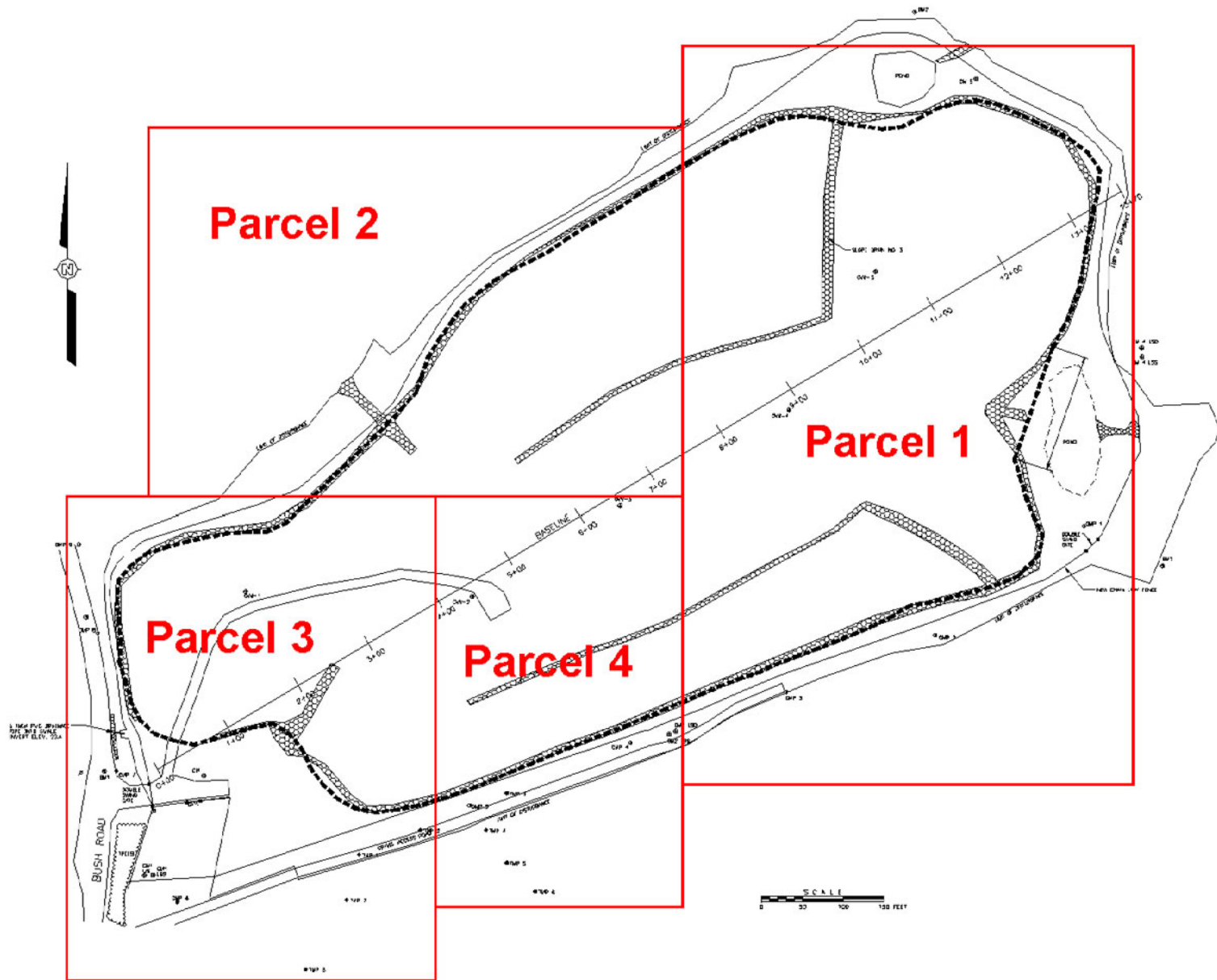


Figure 23. The Four Homogeneous Parcels of the Bush Valley Landfill.

**Table 3.** Analytical Results for COPCs.

| Parcel         | Grid ID No. | O <sub>2</sub> (%) | N <sub>2</sub> (%) | CH <sub>4</sub> (%) | CO <sub>2</sub> (%) | NMOCs (ppmvC) | 1,1,1-Trichloroethane (ppmv) | 1,1-Dichloroethane (ppmv) | 1,2-Dichloroethane (ppmv) | Benzene (ppmv) | Carbon tetrachloride (ppmv) | Chlorobenzene (ppmv) | Chloroethane (ppmv) | Chloroform (ppmv) | 1,4-Dichlorobenzene (ppmv) | Methylene chloride (ppmv) | Tetrachloroethene (ppmv) | Toluene (ppmv) | Trichloroethene (ppmv) | Vinyl chloride (ppmv) | m,p-Xylene (ppmv) | o-Xylene (ppmv) |
|----------------|-------------|--------------------|--------------------|---------------------|---------------------|---------------|------------------------------|---------------------------|---------------------------|----------------|-----------------------------|----------------------|---------------------|-------------------|----------------------------|---------------------------|--------------------------|----------------|------------------------|-----------------------|-------------------|-----------------|
|                |             |                    |                    |                     |                     |               |                              |                           |                           |                |                             |                      |                     |                   |                            |                           |                          |                |                        |                       |                   |                 |
| 36<br>Parcel 1 | GVW4        | 0.30               | 0.88               | 64.00               | 37.00               | 2200.00       | ND <sup>a</sup>              | ND                        | ND                        | 0.72           | ND                          | 0.19                 | 0.16                | ND                | 0.32                       | ND                        | ND                       | 4.00           | ND                     | 0.55                  | 5.90              | 1.70            |
|                | GVW5        | 0.37               | 1.00               | 62.00               | 40.00               | 2200.00       | ND                           | ND                        | 0.07                      | 0.67           | ND                          | 0.25                 | 0.10                | ND                | 0.14                       | 0.08                      | 0.09                     | 13.00          | 0.08                   | 3.20                  | 9.00              | 2.90            |
|                | GMP2        | ND                 | 0.55               | 62.00               | 38.00               | 1900.00       | 0.09                         | 0.03                      | ND                        | 2.50           | ND                          | ND                   | 0.43                | ND                | 0.20                       | 0.20                      | 0.31                     | 0.18           | 0.27                   | 1.4                   | 0.45              | 0.18            |
|                | GMP3        | 0.25               | 0.80               | 63.00               | 38.00               | 2000.00       | ND                           | 0.01                      | ND                        | 0.95           | ND                          | 0.31                 | 0.60                | ND                | 0.17                       | 0.13                      | 0.68                     | ND             | 0.67                   | 0.88                  | ND                | ND              |
| 2              | GVW3        | 0.24               | 0.70               | 62.00               | 36.00               | 2000.00       | ND                           | ND                        | ND                        | 0.31           | ND                          | 0.21                 | 0.16                | ND                | 0.29                       | ND                        | ND                       | 0.55           | ND                     | 0.22                  | 8.00              | 2.40            |
| Parcel 3       | GVW1        | 0.42               | 1.20               | 63.00               | 36.00               | 2100.00       | ND                           | ND                        | 0.09                      | 0.41           | ND                          | 0.41                 | 0.12                | ND                | 0.18                       | 0.06                      | 0.06                     | 3.40           | 0.07                   | 0.12                  | 10.00             | 1.30            |
|                | GMP7        | 1.00               | 34.00              | 36.00               | 27.00               | 860.00        | ND                           | 0.02                      | ND                        | 0.05           | ND                          | ND                   | 0.10                | ND                | ND                         | 0.01                      | 0.08                     | ND             | 0.35                   | 0.32                  | ND                | ND              |
|                | GMP8        | 0.21               | 1.70               | 68.00               | 32.00               | 1400.00       | ND                           | ND                        | 0.05                      | 0.07           | ND                          | ND                   | 0.19                | ND                | 0.02                       | ND                        | ND                       | 0.02           | 0.10                   | 1.10                  | ND                | ND              |
|                | GMP9        | 1.50               | 49.00              | 34.00               | 15.00               | 690.00        | ND                           | ND                        | ND                        | ND             | ND                          | ND                   | 0.03                | ND                | ND                         | ND                        | ND                       | ND             | 0.03                   | 0.07                  | ND                | ND              |
|                | TMP1        | 3.60               | 12.00              | 54.00               | 31.00               | 1400.00       | ND                           | 0.03                      | 0.27                      | 0.22           | ND                          | 0.15                 | 0.18                | ND                | 0.03                       | 1.30                      | 1.10                     | 0.03           | 1.00                   | 0.53                  | 0.08              | 0.04            |
|                | TMP7        | 0.24               | 1.70               | 64.00               | 37.00               | 1600.00       | 0.03                         | 0.04                      | 0.22                      | 0.19           | ND                          | 0.31                 | 0.26                | ND                | 0.09                       | 0.49                      | 1.20                     | 0.01           | 1.40                   | 0.61                  | 0.02              | 0.04            |
|                | TMP8        | 0.47               | 7.90               | 60.00               | 33.00               | 1300.00       | ND                           | 0.04                      | 0.28                      | 0.40           | ND                          | 0.13                 | 0.15                | ND                | 0.03                       | 2.20                      | 1.30                     | 0.12           | 1.00                   | 0.43                  | 0.30              | 0.13            |
| Parcel 4       | GVW2        | 0.46               | 1.50               | 64.00               | 36.00               | 1500.00       | ND                           | ND                        | ND                        | 0.42           | ND                          | 0.17                 | 0.29                | ND                | 0.03                       | ND                        | ND                       | 0.08           | ND                     | 0.05                  | 1.60              | 0.39            |
|                | GMP4        | 1.20               | 8.40               | 57.00               | 38.00               | 1900.00       | ND                           | ND                        | ND                        | 0.94           | ND                          | 0.18                 | 0.28                | ND                | 0.06                       | ND                        | 0.80                     | 0.13           | 0.84                   | 0.93                  | 0.48              | 0.07            |
|                | TMP4        | 0.27               | 1.20               | 64.00               | 39.00               | 1800.00       | 0.05                         | 0.04                      | 0.10                      | 0.06           | ND                          | 0.23                 | 0.49                | ND                | 0.09                       | 0.18                      | 0.72                     | 0.08           | 0.72                   | 0.48                  | 0.11              | 0.10            |
|                | TMP6        | 0.19               | 0.72               | 64.00               | 36.00               | 1700.00       | ND                           | 0.03                      | ND                        | 0.45           | ND                          | 0.18                 | 0.00                | ND                | 0.06                       | 0.10                      | 0.92                     | 0.05           | 0.75                   | 0.66                  | 0.09              | 0.02            |

<sup>a</sup> ND = not detected

**Table 4.** COPCs 90th Percentile Concentrations for the Four Parcels.

| COPC                  | 90th Percentile Concentration |                              |          |                              |          |                              |          |                              |
|-----------------------|-------------------------------|------------------------------|----------|------------------------------|----------|------------------------------|----------|------------------------------|
|                       | Parcel 1                      |                              | Parcel 2 |                              | Parcel 3 |                              | Parcel 4 |                              |
|                       | (ppmv)                        | ( $\mu\text{g}/\text{m}^3$ ) | (ppmv)   | ( $\mu\text{g}/\text{m}^3$ ) | (ppmv)   | ( $\mu\text{g}/\text{m}^3$ ) | (ppmv)   | ( $\mu\text{g}/\text{m}^3$ ) |
| NMOC                  | 2200                          | $1.10 \times 10^{+6}$        | 2000     | $9.98 \times 10^{+5}$        | 1800     | $8.99 \times 10^{+5}$        | 1870     | $9.33 \times 10^{+5}$        |
| 1,1,1-Trichloroethane | 0.093                         | 515.                         |          |                              | 0.03     | 166.                         | 0.051    | 282.                         |
| 1,1-Dichloroethene    | 0.0255                        | 103.                         |          |                              | 0.0378   | 152.                         | 0.0424   | 171.                         |
| 1,2-Dichloroethane    | 0.068                         | 280.                         |          |                              | 0.276    | 1140.                        | 0.1      | 412.                         |
| 1,4-Dichlorobenzene   | 0.284                         | 1740.                        | 0.29     | 1770.                        | 0.144    | 881.                         | 0.0822   | 503.                         |
| Benzene               | 2.035                         | 6610.                        | 0.31     | 1010.                        | 0.405    | 1320.                        | 0.838    | 2720.                        |
| Chlorobenzene         | 0.298                         | 1400.                        | 0.21     | 987.                         | 0.38     | 1790.                        | 0.215    | 1010.                        |
| Chloroethane          | 0.549                         | 1470.                        | 0.16     | 429.                         | 0.218    | 585.                         | 0.43     | 1150.                        |
| Methylene chloride    | 0.186                         | 657.                         |          |                              | 1.84     | 6500.                        | 0.1718   | 607.                         |
| Tetrachloroethene     | 0.606                         | 4180.                        |          |                              | 1.26     | 8700.                        | 0.896    | 6190.                        |
| Toluene               | 11.2                          | 42900.                       | 0.55     | 2110.                        | 2.088    | 8000.                        | 0.1147   | 439.                         |
| Trichloroethene       | 0.59                          | 3220.                        |          |                              | 1.16     | 6320.                        | 0.822    | 4480.                        |
| Vinyl Chloride        | 2.66                          | 6920.                        | 0.22     | 572.                         | 0.806    | 2100.                        | 0.849    | 2210.                        |
| m,p-Xylene            | 8.86                          | 39100.                       | 8        | 35300.                       | 7.09     | 31300.                       | 1.264    | 5570.                        |
| o-Xylene              | 2.66                          | 11700.                       | 2.4      | 10600.                       | 0.949    | 4180.                        | 0.3024   | 1330.                        |

### 5.1 LandGEM Modeling of LFG

With the 90th percentile values derived from the data set, these data were then used as input values for the LandGEM model to estimate the LFG emission rates for each of the COPCs. Because there were four distinct parcels, it was necessary to break this site into four distinct areas and model each individually for methane emissions. To model this site, the following parameters were used:

- 1 Methane generation rate (*k*): 0.05/yr [AP-42 default]
- 2 Methane generation potential (*L*<sub>0</sub>): 170 m<sup>3</sup>/Mg [AP-42 default]
- 3 Year Opened: 1974
- 4 Current Year: 2004
- 5 Landfill Type: Co-disposal
- 6 Landfill Capacity: 303,128 Mg (Parcel 1), 48,324 Mg (Parcel 2), 52,717 Mg (Parcel 3), 30,752 Mg (Parcel 4)  
 These values were derived using the refuse estimator in LandGEM. In order to derive this value, the size of each area was estimated by multiplying the percentage of screening sampling points that each parcel encompassed by the total 16-acre area of the entire landfill. In addition it was determined from literature review of the site that the average depth across the area was approximately 35 ft. With this information, LandGEM calculated the appropriate landfill capacity.
- 7 Acceptance rate (1974-1983): 30,312 Mg/yr (Parcel 1), 4832 Mg/yr (Parcel 2), 5271 Mg/yr (Parcel 3), 3075 Mg/yr (Parcel 4)

This value was determined using the Autocalc function in LandGEM because historical acceptance rate data was not available for this site. To calculate acceptance rate, the landfill capacity for each parcel that LandGEM calculated was entered as the refuse in place for the year 1983 because historical data indicates this was the year the site was closed and maximum capacity was achieved. Once the refuse in place was entered for 1983, all years in which the landfill was active, including closure year, were selected (1974-1983). With these years selected, Autocalc derived the acceptance rate for each of the active years as the average value for all years selected.

- 8 Methane percentage: 64.00% (Parcel 1), 62.00% (Parcel 2), 65.60% (Parcel 3), 64.00% (Parcel 4)  
 This was based on the 90th percentile of the field sample data results.
- 9 NMOC Concentration: 2200 ppmv (Parcel 1), 2000 ppmv (Parcel 2), 1800 ppmv (Parcel 3), 1870 ppmv (Parcel 4)  
 This was based on the 90th percentile of the field sample data results.
- 10 Air Pollutants (COPCs)  
 Modified per 90th percentile values as shown in Table 4.

With all values input for each parcel, LFG emission rates for each COPC were estimated using the LandGEM model. Figure 24 shows an example output file for NMOC emis-



| Model Parameters   |                      |                    |              |
|--|----------------------|--------------------|--------------|
| Lo : 170.00 m <sup>3</sup> / Mg  |                      |                    |              |
| k : 0.0500 1/yr  |                      |                    |              |
| NMOC : 2200.00 ppmv  |                      |                    |              |
| Methane : 64.0000 % volume   |                      |                    |              |
| Carbon Dioxide : 36.0000 % volume  |                      |                    |              |
| Landfill Parameters  |                      |                    |              |
| Landfill type : Co-Disposal  |                      |                    |              |
| Year Opened : 1974 Current Year : 2004 Closure Year: 2004                            |                      |                    |              |
| Capacity : 303128 Mg   |                      |                    |              |
| Average Acceptance Rate Required from<br>Current Year to Closure Year : 0.00 Mg/year |                      |                    |              |
| Model Results  |                      |                    |              |
| Year   | Refuse In Place (Mg) | NMOC Emission Rate |              |
|  |                      | (Mg/yr)            | (Cubic m/yr) |
| 1975   | 3.031E+04            | 3.175E+00          | 8.857E+02    |
| 1976   | 6.063E+04            | 6.195E+00          | 1.728E+03    |
| 1977   | 9.094E+04            | 9.067E+00          | 2.530E+03    |
| 1978   | 1.213E+05            | 1.180E+01          | 3.292E+03    |
| 1979   | 1.516E+05            | 1.440E+01          | 4.017E+03    |
| 1980   | 1.819E+05            | 1.687E+01          | 4.707E+03    |
| 1981   | 2.122E+05            | 1.922E+01          | 5.363E+03    |
| 1982   | 2.425E+05            | 2.146E+01          | 5.987E+03    |
| 1983   | 2.728E+05            | 2.359E+01          | 6.581E+03    |
| •  | •                    | •                  | •            |
| •  | •                    | •                  | •            |
| 2001   | 3.031E+05            | 1.095E+01          | 3.054E+03    |
| 2002   | 3.031E+05            | 1.041E+01          | 2.905E+03    |
| 2003   | 3.031E+05            | 9.906E+00          | 2.764E+03    |
| •  | •                    | •                  | •            |
| •  | •                    | •                  | •            |
| 2201   | 3.031E+05            | 4.970E-04          | 1.387E-01    |
| 2202   | 3.031E+05            | 4.728E-04          | 1.319E-01    |
| 2203   | 3.031E+05            | 4.497E-04          | 1.255E-01    |

Figure 24. Example LandGEM Model Run Output.

sions from the LandGEM model. Table 5 provides the emission rates estimated for each COPC within each parcel of the landfill, and Figure 25 shows the emission rate data for NMOC versus time. Appendix D contains all the LandGEM model runs for all parcels.

### 5.2 SCREEN3 Modeling of LFG

The next step in characterizing the emissions of LFG is to evaluate the ambient impact of each of the COPCs. For this, it is necessary to use an atmospheric dispersion model, and for purposes of this demonstration, SCREEN3 was used to provide a screening level assessment. In order to properly screen the landfill, each parcel shown in Figure 23 was evaluated separately as an area source within the model. Each area was modeled at a unity emission rate of 1 g/s to provide maximum 1-h concentration. Because each area was modeled on a unity basis, the emission rates generated from the LandGEM model could in turn be multiplied by this unity-derived concentration to determine the 1-h maximum concentrations for each COPC. To convert these concentrations to a representative annual concentration, all derived 1-h concentrations were multiplied by the appropriate multiplying factor of 0.08. If, an alternative averaging time is to be evaluated, the reader is referred to section 2.2.1.4, Atmospheric Dispersion Modeling and to Table 2-3 of the Guidance. Table 6 provides the maximum annual concentrations for each COPC. Appendix E contains the SCREEN3 model runs for each parcel.

Table 5. COPC Emission Rates by Parcel.

| COPC                  | 2003 Emission Rates (Mg/yr) |                       |                       |                       |
|-----------------------|-----------------------------|-----------------------|-----------------------|-----------------------|
|                       | Parcel 1                    | Parcel 2              | Parcel 3              | Parcel 4              |
| NMOC                  | 9.91                        | 1.48                  | 1.38                  | 0.854                 |
| 1,1,1-Trichloroethane | 6.27×10 <sup>-4</sup>       |                       | 3.55×10 <sup>-5</sup> | 3.54×10 <sup>-5</sup> |
| 1,1-Dichloroethene    | 1.52×10 <sup>-4</sup>       |                       | 3.44×10 <sup>-5</sup> | 2.06×10 <sup>-5</sup> |
| 1,2-Dichloroethane    | 3.62×10 <sup>-4</sup>       |                       | 2.46×10 <sup>-4</sup> | 5.25×10 <sup>-5</sup> |
| 1,4-Dichlorobenzene   | 2.15×10 <sup>-3</sup>       | 3.67×10 <sup>-4</sup> | 1.82×10 <sup>-4</sup> | 6.23×10 <sup>-5</sup> |
| Benzene               | 8.33×10 <sup>-3</sup>       | 2.08×10 <sup>-4</sup> | 2.84×10 <sup>-4</sup> | 3.48×10 <sup>-4</sup> |
| Carbon tetrachloride  |                             |                       |                       |                       |
| Chlorobenzene         | 1.76×10 <sup>-3</sup>       | 2.03×10 <sup>-4</sup> | 3.79×10 <sup>-4</sup> | 1.31×10 <sup>-4</sup> |
| Chloroethane          | 1.85×10 <sup>-3</sup>       | 8.88×10 <sup>-5</sup> | 1.26×10 <sup>-4</sup> | 1.47×10 <sup>-4</sup> |
| Chloroform            |                             |                       |                       |                       |
| Methylene chloride    | 8.43×10 <sup>-4</sup>       |                       | 1.39×10 <sup>-3</sup> | 7.65×10 <sup>-5</sup> |
| Tetrachloroethene     | 5.29×10 <sup>-3</sup>       |                       | 1.85×10 <sup>-3</sup> | 7.91×10 <sup>-4</sup> |
| Toluene               | 5.39×10 <sup>-2</sup>       | 4.36×10 <sup>-4</sup> | 1.71×10 <sup>-3</sup> | 5.37×10 <sup>-5</sup> |
| Trichloroethene       | 4.05×10 <sup>-3</sup>       |                       | 1.35×10 <sup>-3</sup> | 5.71×10 <sup>-4</sup> |
| Vinyl Chloride        | 8.69×10 <sup>-3</sup>       | 1.18×10 <sup>-4</sup> | 4.49×10 <sup>-4</sup> | 2.82×10 <sup>-4</sup> |
| m,p-Xylene            | 4.92×10 <sup>-2</sup>       | 7.30×10 <sup>-3</sup> | 6.67×10 <sup>-3</sup> | 7.09×10 <sup>-4</sup> |
| o-Xylene              | 1.48×10 <sup>-2</sup>       | 2.19×10 <sup>-3</sup> | 8.94×10 <sup>-4</sup> | 1.69×10 <sup>-4</sup> |

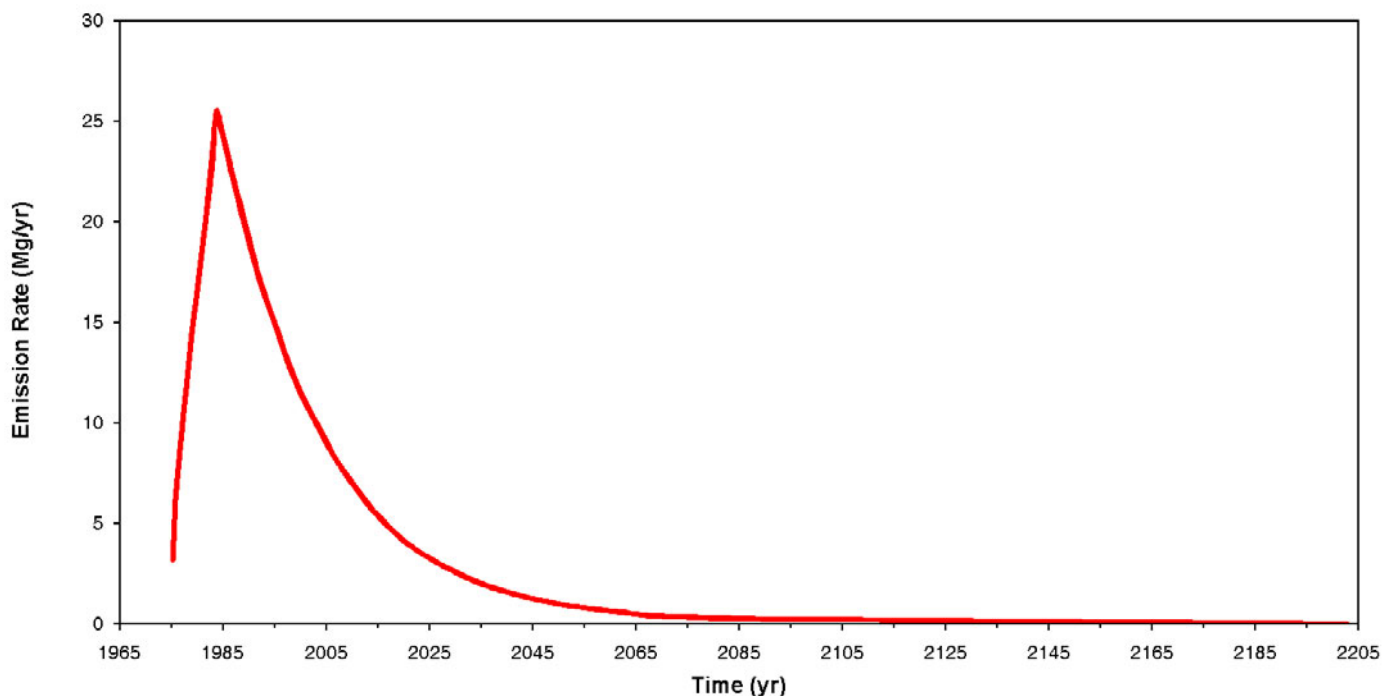


Figure 25. NMOE Emission Rates: 1975-2203.

Table 6. Maximum Annual Concentrations.

| COPC                  | Predicted Maximum Annual Concentrations |                              |                       |                              |                       | Total                  |                              |                        |                              |
|-----------------------|---|------------------------------|-----------------------|------------------------------|-----------------------|------------------------|------------------------------|------------------------|------------------------------|
|                       | Parcel 1                                |                              | Parcel 2              |                              | Parcel 3              |                        | Parcel 4                     |                        |                              |
|                       | (ppmv)                                  | ( $\mu\text{g}/\text{m}^3$ ) | (ppmv)                | ( $\mu\text{g}/\text{m}^3$ ) | (ppmv)                |                        | ( $\mu\text{g}/\text{m}^3$ ) | (ppmv)                 | ( $\mu\text{g}/\text{m}^3$ ) |
| Methane               |   | 4449.                        |                       | 1102.                        |                       | 1301.                  |                              | 1251.                  | 8103.                        |
| Carbon Dioxide        |   | 6867.                        |                       | 1854.                        |                       | 1871.                  |                              | 1931.                  | $1.252 \times 10^4$          |
| NMOE                  |   | 82.17                        |                       | 19.11                        |                       | 19.17                  |                              | 19.65                  | 140.1                        |
| 1,1,1-Trichloroethane | $9.41 \times 10^{-7}$                   | $5.204 \times 10^{-3}$       |                       |                              | $8.94 \times 10^{-8}$ | $4.948 \times 10^{-4}$ | $1.47 \times 10^{-7}$        | $8.132 \times 10^{-4}$ | $6.512 \times 10^{-3}$       |
| 1,1-Dichloroethene    | $3.13 \times 10^{-7}$                   | $1.260 \times 10^{-3}$       |                       |                              | $1.19 \times 10^{-7}$ | $4.793 \times 10^{-4}$ | $1.17 \times 10^{-7}$        | $4.726 \times 10^{-4}$ | $2.212 \times 10^{-3}$       |
| 1,2-Dichloroethane    | $7.29 \times 10^{-7}$                   | $3.002 \times 10^{-3}$       |                       |                              | $8.32 \times 10^{-7}$ | $3.425 \times 10^{-3}$ | $2.93 \times 10^{-7}$        | $1.206 \times 10^{-3}$ | $7.633 \times 10^{-3}$       |
| 1,4-Dichlorobenzene   | $2.92 \times 10^{-6}$                   | $1.783 \times 10^{-2}$       | $7.73 \times 10^{-7}$ | $4.725 \times 10^{-3}$       | $4.16 \times 10^{-7}$ | $2.544 \times 10^{-3}$ | $2.34 \times 10^{-7}$        | $1.433 \times 10^{-3}$ | $2.654 \times 10^{-2}$       |
| Benzene               | $2.13 \times 10^{-5}$                   | $6.907 \times 10^{-2}$       | $8.26 \times 10^{-7}$ | $2.684 \times 10^{-3}$       | $1.22 \times 10^{-6}$ | $3.959 \times 10^{-3}$ | $2.46 \times 10^{-6}$        | $7.999 \times 10^{-3}$ | $8.371 \times 10^{-2}$       |
| Chlorobenzene         | $3.11 \times 10^{-6}$                   | $1.463 \times 10^{-2}$       | $5.57 \times 10^{-7}$ | $2.620 \times 10^{-3}$       | $1.12 \times 10^{-6}$ | $5.288 \times 10^{-3}$ | $6.42 \times 10^{-7}$        | $3.020 \times 10^{-3}$ | $2.556 \times 10^{-2}$       |
| Chloroethane          | $5.73 \times 10^{-6}$                   | $1.538 \times 10^{-2}$       | $4.26 \times 10^{-7}$ | $1.144 \times 10^{-3}$       | $6.54 \times 10^{-7}$ | $1.754 \times 10^{-3}$ | $1.26 \times 10^{-6}$        | $3.383 \times 10^{-3}$ | $2.166 \times 10^{-2}$       |
| Methylene chloride    | $1.98 \times 10^{-6}$                   | $6.991 \times 10^{-3}$       |                       |                              | $5.47 \times 10^{-6}$ | $1.931 \times 10^{-2}$ | $4.98 \times 10^{-7}$        | $1.759 \times 10^{-3}$ | $2.806 \times 10^{-2}$       |
| Tetrachloroethene     | $6.35 \times 10^{-6}$                   | $4.384 \times 10^{-2}$       |                       |                              | $3.74 \times 10^{-6}$ | $2.583 \times 10^{-2}$ | $2.63 \times 10^{-6}$        | $1.819 \times 10^{-2}$ | $8.786 \times 10^{-2}$       |
| Toluene               | $1.17 \times 10^{-4}$                   | $4.473 \times 10^{-1}$       | $1.47 \times 10^{-6}$ | $5.617 \times 10^{-3}$       | $6.21 \times 10^{-6}$ | $2.380 \times 10^{-2}$ | $3.22 \times 10^{-7}$        | $1.235 \times 10^{-3}$ | $4.779 \times 10^{-1}$       |
| Trichloroethene       | $6.17 \times 10^{-6}$                   | $3.360 \times 10^{-2}$       |                       |                              | $3.46 \times 10^{-6}$ | $1.884 \times 10^{-2}$ | $2.41 \times 10^{-6}$        | $1.313 \times 10^{-2}$ | $6.557 \times 10^{-2}$       |
| Vinyl Chloride        | $2.77 \times 10^{-5}$                   | $7.205 \times 10^{-2}$       | $5.86 \times 10^{-7}$ | $1.524 \times 10^{-3}$       | $2.41 \times 10^{-6}$ | $6.258 \times 10^{-3}$ | $2.49 \times 10^{-6}$        | $6.476 \times 10^{-3}$ | $8.631 \times 10^{-2}$       |
| m,p-Xylene            | $9.25 \times 10^{-5}$                   | $4.077 \times 10^{-1}$       | $2.14 \times 10^{-5}$ | $9.415 \times 10^{-2}$       | $2.11 \times 10^{-5}$ | $9.305 \times 10^{-2}$ | $3.70 \times 10^{-6}$        | $1.631 \times 10^{-2}$ | $6.112 \times 10^{-1}$       |
| o-Xylene              | $2.78 \times 10^{-5}$                   | $1.224 \times 10^{-1}$       | $6.41 \times 10^{-6}$ | $2.825 \times 10^{-2}$       | $2.83 \times 10^{-6}$ | $1.247 \times 10^{-2}$ | $8.80 \times 10^{-7}$        | $3.882 \times 10^{-3}$ | $1.670 \times 10^{-1}$       |



## Section 6. Risk Assessment

The risk assessment provided in this section is for illustrative purposes only. It is not intended to represent a complete and detailed risk assessment for determining further actions at this site.

In order to calculate the incremental risk associated with exposure to a COPC, the time averaged emission rate for the time period of concern must first be determined. The equation for determining the time averaged emission rate is

$$\langle E \rangle = (1/ED) \times \left[ \left( \frac{h}{2} \right) \times \left( E_0 + 2 \sum_{E_1}^{E_{n-1}} E \right) + E_n \right]$$

where

- $\langle E \rangle$  = Time-averaged emission rate (megagrams per year),
- $ED$  = Exposure duration (years),
- $h$  = Time-step interval (years),  $h = 1$  yr,
- $E_{0,1,2 \dots n}$  = Emission rate at the end of the first year ( $E_0$ ) and each succeeding year from LandGEM (megagrams per year), and
- $n$  = Number of time-steps ( $n = ED$ ).

This time averaged emission rate is then entered into the atmospheric dispersion model to estimate the average exposure point concentration of the COPC. Using this approach, a dispersion model run will be required for each chemical of concern. Alternatively, if the dispersion model is run assuming the emission rate is at unity (1 g/m<sup>2</sup>•s), the dispersion model will generate a normalized air concentration in (micrograms per cubic meter per gram per square meter second) at the receptor of concern. The estimated ambient air concentration (micrograms per cubic meter) is determined by multiplying the dispersion coefficient and the time averaged emission rate. The LandGEM model runs for the Bush Valley Landfill predicted very low emission rates, and the emission rate for every COPC was declining from 2003 forward. Hence, it was decided to use only the 2003 emission rates to calculate, for illustrative purposes, the ambient air concentrations. These predicted ambient

air concentrations were then compared to the target concentrations in Table 7.

Table 7 identifies target media concentrations corresponding to risk or hazard based concentrations for ambient air in residential settings. Only air concentrations that satisfy both the prescribed cancer risk level and the target hazard index are included in Table 7. The approach described here also can be used to evaluate chemicals not listed in the tables. It must be emphasized that the concentrations presented in Table 7 are screening levels. They are not clean-up levels or preliminary remediation goals nor are they intended to supersede existing criteria of the lead regulatory authority. The lead regulatory authority for a site may determine that criteria other than those provided herein are appropriate for their specific site or area.

The sources of chemical data used in the calculations necessary to create Table 7 were EPA's Superfund Chemical Data Matrix (SCDM) database and EPA's Water 9 database whenever a chemical was not included in the SCDM database. EPA's Integrated Risk Information System (IRIS) is the preferred source of carcinogenic unit risks and non-carcinogenic reference concentrations (RfCs) for inhalation exposure.<sup>1</sup> The following two sources were consulted, in order of preference, when IRIS values were not available: provisional toxicity values recommended by EPA's National Center for Environmental Assessment (NCEA) and EPA's Health Effects Assessment Summary Tables (HEAST). If no inhalation toxicity data could be obtained from IRIS, NCEA, or HEAST, extrapolated unit risks and RfCs were derived by using toxicity data for oral exposure (cancer slope factors and reference doses, respectively) from these reference sources using the same preference order. Toxicity databases such as IRIS are constantly being updated; this table is current as of August 2002. Users

<sup>1</sup> U.S. EPA. 2002. Integrated Risk Information System (IRIS). <http://www.epa.gov/iriswebp/iris/index.html> (accessed October 2005)

Table 7. Risk Assessment Analysis

| CAS No. | Chemical                      | Basis of Target Conc. | C <sub>target</sub> —Target Ambient Air Concentration to Satisfy both the Prescribed Risk Level (R=10 <sup>-6</sup> ) and the Target Hazard Index (HI=1) <sup>a</sup> |                                 | Total Predicted Ambient Air Conc. (µg/m <sup>3</sup> ) |
|---------|-------------------------------|-----------------------|---|---------------------------------|--|
|         |                               |                       | Cancer (µg/m <sup>3</sup> )   | Non-cancer (µg/m <sup>3</sup> ) |  |
| 71556   | 1,1,1-Trichloroethane         | NC <sup>b</sup>       |   | 2.2×10 <sup>+03</sup>           | 6.5×10 <sup>-03</sup>                                  |
| 75354   | 1,1-Dichloroethylene          | NC                    |   | 2.1×10 <sup>+02</sup>           | 2.2×10 <sup>-03</sup>                                  |
| 107062  | 1,2-Dichloroethane            | C <sup>c</sup>        | 7.4×10 <sup>-02</sup>   | 5.1                             | 7.6×10 <sup>-03</sup>                                  |
| 106467  | 1,4-Dichlorobenzene           | C                     | 3.1×10 <sup>-01</sup>   | 8.4×10 <sup>+02</sup>           | 2.7×10 <sup>-02</sup>                                  |
| 71432   | Benzene                       | C                     | 2.5×10 <sup>-01</sup>   | 31.                             | 8.4×10 <sup>-02</sup>                                  |
| 56235   | Carbon tetrachloride          | C                     | 1.3×10 <sup>-01</sup>   | 2.6                             | 0.00   |
| 108907  | Chlorobenzene                 | NC                    |   | 62.                             | 2.6×10 <sup>-02</sup>                                  |
| 75003   | Chloroethane (ethyl chloride) | C                     | 2.3   | 1.0×10 <sup>+04</sup>           | 2.2×10 <sup>-02</sup>                                  |
| 67663   | Chloroform                    | C                     | 8.3×10 <sup>-02</sup>   | 5.1×10 <sup>-01</sup>           | 0.00   |
| 75092   | Methylene chloride            | C                     | 4.1   | 3.1×10 <sup>+03</sup>           | 2.8×10 <sup>-02</sup>                                  |
| 127184  | Tetrachloroethylene           | C                     | 3.2×10 <sup>-01</sup>   | 37.                             | 8.8×10 <sup>-02</sup>                                  |
| 108883  | Toluene                       | NC                    |   | 4.0×10 <sup>+02</sup>           | 4.8×10 <sup>-01</sup>                                  |
| 79016   | Trichloroethylene             | C                     | 1.7×10 <sup>-02</sup>   | 37.                             | 6.6×10 <sup>-02</sup>                                  |
| 75014   | Vinyl Chloride (chloroethene) | C                     | 1.1×10 <sup>-01</sup>   | 1.0×10 <sup>+02</sup>           | 8.6×10 <sup>-02</sup>                                  |
| 108383  | m,p-Xylene                    | NC                    |   | 1.1×10 <sup>+02</sup>           | 6.1×10 <sup>-01</sup>                                  |
| 95476   | o-Xylene                      | NC                    |   | 1.1×10 <sup>+02</sup>           | 1.7×10 <sup>-01</sup>                                  |

<sup>a</sup> U.S. EPA Region 9 PRG Tables, October 2004

<sup>b</sup> NC = noncancer risk

<sup>c</sup> C = cancer risk

of this guidance are strongly encouraged to research the latest toxicity values for contaminants of interest from the sources noted above.

The ambient air concentrations in the table are risk-based screening levels calculated following an approach consistent with that presented in HEAST (U.S. EPA, 1997). Separate carcinogenic and non-carcinogenic target concentrations were calculated for each compound when both unit risks and reference concentrations were available. When inhalation toxicity values were not available, unit risks and reference concentrations were extrapolated from oral slope factors or reference doses, respectively. For both carcinogens and non-carcinogens, target air concentrations were based on an adult exposure scenario and assume maximum exposure of an individual (i.e., exposure to contaminants 24 hours per day, 7 days per week, over 70 years). An inhalation rate of 20 m<sup>3</sup>/day and a body weight of 70 kg are assumed and have been factored into the inhalation unit risk and reference concentration toxicity values.

Unit risks were extrapolated from cancer slope factors using

$$URF = CFS \times IR \times \left( \frac{1}{BW} \right) \left( \frac{10^{-3} \text{ mg}}{\mu\text{g}} \right)$$

where

*URF* = unit risk factor (micrograms per cubic meter)<sup>-1</sup>,

*CSF* = cancer slope factor,

*IR* = inhalation rate (cubic meters per day), and

*BW* = body weight (kilograms).

Reference concentrations were extrapolated from reference doses using

$$RfC = RfD \times BW \times \left( \frac{1}{IR} \right)$$

where

*RfC* = reference concentration (milligram per cubic meter) and

*RfD* = reference dose (milligram per kilogram per day).

For carcinogens,

$$C_{cancer} = TCR/URF$$

and for noncarcinogens,

$$C_{noncancer} = THQ \times RfC$$

where

- $C_{cancer}$  = target indoor air carcinogen concentration (micrograms per cubic meter),
- $C_{noncancer}$  = target indoor air noncarcinogen concentration (micrograms per cubic meter),
- $TCR$  = target cancer risk (e.g.,  $1.0 \times 10^{-5}$ ), and
- $THQ$  = target hazard quotient (e.g., 1.0).

For most compounds, the more stringent of the cancer- and noncancer-based contaminant concentrations is chosen as the target are concentration that satisfies both the prescribed cancer risk and the target hazard quotient.

$$C_{target,ia} = MIN(C_{cancer}, C_{noncancer})$$

The target concentration, however, was preferentially selected for those compounds that had both an inhalation-based toxicity value and an oral-extrapolated value. The selected screening level was preferentially based on the non-extrapolated toxicity value chosen to calculate the acceptable ambient air concentration.<sup>2</sup>

For ease in application of the table, the indoor air concentrations are given in units of micrograms per cubic meter. The conversion from parts per billion by volume to micrograms per cubic meter is

$$C[ppmv] = C \left[ \frac{\mu g}{m^3} \right] \times 10^9 \left[ \frac{ppb}{atm} \right] \times 10^{-3} \left[ \frac{m^3}{L} \right] \times R \times \frac{T}{MW \times 10^6 [\mu g/g]}$$

where

- $R$  = gas constant (0.0821 L\*atm/mole\*K),
- $T$  = absolute temperature (298 K), and
- $MW$  = molecular weight (grams per mole)

<sup>2</sup> The target air concentration for trichloroethylene is the lone exception to this rule. The target concentration is based on a carcinogenic unit risk extrapolated from an upper bound oral cancer slope factor of  $4 \times 10^{-1} (mg/kg/day)^{-1}$  cited in NCEA's draft risk assessment for trichloroethylene (EPA, 2001). However, as noted in that document, available evidence from toxicological studies suggests similar carcinogenic effects from both the oral and inhalation routes of exposure. The existence of this evidence gives greater weight to the extrapolated unit risk, and given that the unit risk produces a lower target concentration than the non-extrapolated RfC, the unit risk-based value is adopted here as the target air concentration for trichloroethylene.

The calculated target air concentrations are listed in the tables along with a column indicating whether cancer or noncancer risks drive the target concentration. If the exposure scenario of concern is an adult resident living at the receptor location being most impacted, the forward-calculation of incremental risks begins with the estimated ambient air concentration (i.e.,  $C_{air}$  in micrograms per cubic meter). For carcinogenic contaminants, the risk level is calculated as

$$Risk = \frac{URF \times EF \times ED \times C_{air}}{AT_C \times 365 \text{ days/yr}}$$

where

- $Risk$  = incremental risk level, unitless (e.g.,  $1 \times 10^{-6}$ ),
- $C_{air}$  = annual average ambient air concentration for each carcinogen (micrograms per cubic meter),
- $AT_C$  = averaging time for carcinogens (years—70 yr),
- $EF$  = exposure frequency (days per year—350 days), and
- $ED$  = exposure duration (years—30 yr).

For noncarcinogenic contaminants, the hazard quotient is calculated as

$$HQ = \frac{EF \times ED \times \frac{1}{RfC} \times C_{air}}{AT_{NC} \times 365 \text{ days/yr}}$$

where

- $HQ$  = Hazard quotient, unitless (e.g., 1.0) and
- $AT_{NC}$  = Averaging time for noncarcinogens (year—30 yr)

Table 7 illustrates the results of using the above equations and discussions. The last column in Table 7 represents the total ambient air concentration in micrograms per cubic meter. This value is derived by multiplying the emission flux values from LandGEM by the ambient air concentration from the dispersion model (SCREEN3) when run at a unity emission rate (1 g/s). These values would be compared to the appropriate risk derived concentrations as seen in the previous three columns to determine if a particular COPC is above or below an acceptable air concentration and whether further actions or investigations may be needed. Again, Table 7 is presented for illustrative purposes only and is not intended to represent the results or conclusions drawn from a detailed risk assessment.



## Section 7. Findings and Conclusions

This case study documents how the guidance can be used to evaluate landfill gas emissions. It illustrates the usefulness of both the information and the procedures presented in the Guidance for Evaluating Landfill Gas Emissions from Closed or Abandoned Facilities. By applying the investigative techniques and recommended practices, the research team was able to:

- 1 Determine where the landfill gases are escaping into the atmosphere ,
- 2 Identify the chemicals of potential concern,
- 3 Quantify the speciated LFG emission rates ,
- 4 Identify the most likely to be affected at off-site location(s), and
- 5 Characterize ambient air concentrations.

This case study report provided data and information that were used by the remedial project manager to:

- 1 Assess the health risk associated with the emissions from the landfill,
- 2 Determine if additional site investigation effort is needed,
- 3 Evaluate the level of effort associated with the existing LFG monitoring program,
- 4 Determine if the previously proposed remedial design needed to be altered,
- 5 Evaluate the need for institution controls and future land use policy decisions, and
- 6 Decide if the risks and hazards associated with the landfill gas needed to be controlled with LFG control technology.

Specific to the Bush valley site the following lessons were learned:

- The conventional field screening, discrete sampling using Summa canisters, commercial laboratory analysis using T015 analytical methods, and emission and dis-

position modeling procedures provided the information needed to assess the risks and hazards associated with the LFG emissions. The turn around time for the commercial laboratory was measured in weeks. The data reduction and modeling efforts require 2-3 man days of effort, so health risks could not be quantified on a real time basis. Readily available equipment and ordinary environmental technician skills are required to obtain quality results.

- This effort identified previously unrecognized leaks in the FML, which had been installed for less than 5 years. This effort demonstrated the needed to periodically investigate the integrity of landfill liners.
- This effort confirmed previous findings that indicated LFG has migrated offsite in a direction towards occupied homes via below ground sand layers. Since this illustrative study effort was not designed to fully characterize the aerial extent of the LFG migration, a LFG plume chase was not undertaken. It was recognized the additional offsite LFG monitoring systems and potentially indoor air sampling would have been initiated in accordance with Guidance Document, if implementation of final remedy would be substantially delayed. It was recognized that the remedial design was nearly complete and plans to replace the passive vents collection system with an enclosed oxidizer, were already approved, no further site investigation effort was undertaken.
- Using the research data, the predicted trichloroethylene ambient air concentrations are above that which would create an unacceptable risk at the  $1 \times 10^{-6}$  level but below that which would acceptable at a  $1 \times 10^{-5}$  level.
- This project demonstrated that the LFG monitoring system needs to be permanently installed and maintained. Several of the temporary monitoring probes showed evidence of ambient air in-leakage.





**Appendix A**  
**Site Activity Photographs**



Bush Valley Landfill Entrance Sign



Warning Sign on the Bush Valley Landfill Entry Fence



Entrance View of the Bush Valley Landfill



View of the Bush Valley Landfill



Perimeter Gas Monitoring Probe



Encased Valve to a Perimeter Gas Monitoring Probe



Passive Vent on the Top of the Bush Valley Landfill



Sampling Valve Installed on a Passive Vent



Landfill Gas Screening of a Perimeter Gas Monitoring Probe



Landfill Gas Screening of a Perimeter Gas Monitoring Probe



Landfill Gas Screening at a Passive Vent



Landfill Gas Screening at a Passive Vent





Landfill Gas Screening at a Passive Vent



Landfill Gas Sampling at a Perimeter Gas Monitoring Probe



Landfill Gas Sampling and Duplicate Sampling at a Perimeter Gas Monitoring Probe



Landfill Gas Sampling with Duplicate Sampling and Ambient Air Sampling at a Passive Vent



Landfill Gas Sampling and Ambient Air Sampling at a Passive Vent



Landfill Gas Sampling at a Temporary Gas Monitoring Probe

**Appendix B**  
**Wilcoxon Statistical Analysis**

### Wilcoxon Two-Sample, Rank-Sum Test

In order to properly characterize and establish a sampling method for each landfill, it is necessary to identify those areas that are nearly homogeneous in composition. This is determined following the screening procedures. Through application of statistical methods on the screening data, it is possible to divide the landfill into nearly homogeneous areas. For the purpose of this guidance, it was decided to use a method referred to as the Wilcoxon two-sample, rank-sum test, or simply the rank-sum test. This is a statistical method used to determine if two independent sample populations are statistically similar (i.e., they have the same mean and median). For this application, statistically similar populations refer to areas within the landfill that are nearly homogeneous.

The first step is to assign the screening data that was collected to two populations (e.g., north landfill and south landfill) as

$$n = n_1 + n_2$$

where

- $n$  = entire screening data set,
- $n_1$  = population of size  $n_1$ ,
- $n_2$  = population of size  $n_2$ , and
- $n_1 \leq n_2$ .

Once the all data has been assigned to one or the other populations, all the data must be placed in ascending order regardless of which population it was assigned and assigned

a rank from 1 to  $n$ . In case of ties, all tied values should be assigned a ranking that is the mean of the tied rankings. For example, if two values are tied for the second lowest value, they both would be assigned a ranking of 2.5, which is the mean of the second and third ranking spots. After all values have been ranked, the ranks associated with the values from the smaller population,  $n_1$ , are added and the sum denoted as  $T'$ . Once  $T'$  is derived, it is compared with the values in Table X to decide on a given level of significance. Table X can be used for a given combination of  $n_1$  and  $n_2$  up to a total population size ( $n$ ) of 20. If  $T'_{\alpha} \leq T' \leq T'_{1-\alpha}$ , then the two populations can be considered statistically similar and therefore one homogeneous area.

For a larger data set, the following statistical test must be used.

$$Z = \frac{T' - \frac{n_1(n_1 + n_2 + 1)}{2}}{\sqrt{\frac{n_1 n_2 (n_1 + n_2 + 1)}{12}}}$$

This value of  $Z$  is then compared to a specific level of significance on a  $t$  distribution shown in Table IV, where  $df$  is the total population size ( $n$ ). If  $|Z| \geq Z_{\alpha/2}$ , then the two populations can not be considered statistically similar and are therefore two nonhomogeneous areas.

Continue this process until all areas of the landfill have been divided into distinct homogeneous areas.

TABLE X DISTRIBUTION OF THE RANK SUM  $T'$

The values of  $T'_\alpha$ ,  $T'_{1-\alpha}$ , and  $\alpha$  are such that, if the  $n_1$  and  $n_2$  observations are chosen at random from the same population, the chance that the rank sum  $T'$  of the  $n_1$  observations in the smaller sample is equal to or less than  $T'_\alpha$  is  $\alpha$  and the chance that  $T'$  is equal to or greater than  $T'_{1-\alpha}$  is  $\alpha$ . The sample sizes are shown in parentheses ( $n_1, n_2$ )

| $T'_\alpha$ | $T'_{1-\alpha}$ | $\alpha$ | $T'_\alpha$ | $T'_{1-\alpha}$ | $\alpha$ | $T'_\alpha$ | $T'_{1-\alpha}$ | $\alpha$ | $T'_\alpha$ | $T'_{1-\alpha}$ | $\alpha$ |
|-------------|-----------------|----------|-------------|-----------------|----------|-------------|-----------------|----------|-------------|-----------------|----------|
|             | (1,9)           |          |             | (3,8)           |          |             | (4,8) (Cont.)   |          |             | (5,7) (Cont.)   |          |
| 1           | 10              | .100     | 6           | 30              | .006     | 12          | 40              | .008     | 19          | 46              | .015     |
|             | (1,10)          |          | 7           | 29              | .012     | 13          | 39              | .014     | 20          | 45              | .024     |
| 1           | 11              | .091     | 8           | 28              | .024     | 14          | 38              | .024     | 21          | 44              | .037     |
|             | (2,3)           |          | 9           | 27              | .042     | 15          | 37              | .036     | 22          | 43              | .053     |
| 3           | 9               | .100     | 10          | 26              | .067     | 16          | 36              | .055     | 23          | 42              | .074     |
|             | (2,4)           |          | 11          | 25              | .097     | 17          | 35              | .077     |             | (5,8)           |          |
| 3           | 11              | .067     |             | (3,9)           |          |             | (4,9)           |          | 15          | 55              | .001     |
|             | (2,5)           |          | 6           | 33              | .005     | 10          | 46              | .001     | 16          | 54              | .002     |
| 3           | 13              | .047     | 7           | 32              | .009     | 11          | 45              | .003     | 17          | 53              | .003     |
| 4           | 12              | .095     | 8           | 31              | .018     | 12          | 44              | .006     | 18          | 52              | .005     |
|             | (2,6)           |          | 9           | 30              | .032     | 13          | 43              | .010     | 19          | 51              | .009     |
| 3           | 15              | .036     | 10          | 29              | .050     | 14          | 42              | .017     | 20          | 50              | .015     |
| 4           | 14              | .071     | 11          | 28              | .073     | 15          | 41              | .025     | 21          | 49              | .023     |
|             | (2,7)           |          |             | (3,10)          |          | 16          | 40              | .038     | 22          | 48              | .033     |
| 3           | 17              | .028     | 6           | 36              | .003     | 17          | 39              | .053     | 23          | 47              | .047     |
| 4           | 16              | .056     | 7           | 35              | .007     | 18          | 38              | .074     | 24          | 46              | .064     |
|             | (2,8)           |          | 8           | 34              | .014     | 19          | 37              | .099     | 25          | 45              | .085     |
| 3           | 19              | .022     | 9           | 33              | .024     |             | (4,10)          |          |             | (5,9)           |          |
| 4           | 18              | .044     | 10          | 32              | .038     | 10          | 50              | .001     | 15          | 60              | .000     |
| 5           | 17              | .089     | 11          | 31              | .056     | 11          | 49              | .002     | 16          | 59              | .001     |
|             | (2,9)           |          | 12          | 30              | .080     | 12          | 48              | .004     | 17          | 58              | .002     |
| 3           | 21              | .018     |             | (4,4)           |          | 13          | 47              | .007     | 18          | 57              | .003     |
| 4           | 20              | .036     | 10          | 26              | .014     | 14          | 46              | .012     | 19          | 56              | .006     |
| 5           | 19              | .073     | 11          | 25              | .029     | 15          | 45              | .018     | 20          | 55              | .009     |
|             | (2,10)          |          | 12          | 24              | .057     | 16          | 44              | .026     | 21          | 54              | .014     |
| 3           | 23              | .015     | 13          | 23              | .100     | 17          | 43              | .038     | 22          | 53              | .021     |
| 4           | 22              | .030     |             | (4,5)           |          | 18          | 42              | .053     | 23          | 52              | .030     |
| 5           | 21              | .061     | 10          | 30              | .008     | 19          | 41              | .071     | 24          | 51              | .041     |
| 6           | 20              | .091     | 11          | 29              | .016     | 20          | 40              | .094     | 25          | 50              | .056     |
|             | (3,3)           |          | 12          | 28              | .032     |             | (5,5)           |          | 26          | 49              | .073     |
| 6           | 15              | .050     | 13          | 27              | .056     | 15          | 40              | .004     | 27          | 48              | .095     |
| 7           | 14              | .100     | 14          | 26              | .095     | 16          | 39              | .008     |             | (5,10)          |          |
|             | (3,4)           |          |             | (4,6)           |          | 17          | 38              | .016     | 15          | 65              | .000     |
| 6           | 18              | .028     | 10          | 34              | .005     | 18          | 37              | .028     | 16          | 64              | .001     |
| 7           | 17              | .057     | 11          | 33              | .010     | 19          | 36              | .048     | 17          | 63              | .001     |
|             | (3,5)           |          | 12          | 32              | .019     | 20          | 35              | .075     | 18          | 62              | .002     |
| 6           | 21              | .018     | 13          | 31              | .033     |             | (5,6)           |          | 19          | 61              | .004     |
| 7           | 20              | .036     | 14          | 30              | .057     | 15          | 45              | .002     | 20          | 60              | .006     |
| 8           | 19              | .071     | 15          | 29              | .086     | 16          | 44              | .004     | 21          | 59              | .010     |
|             | (3,6)           |          |             | (4,7)           |          | 17          | 43              | .009     | 22          | 58              | .014     |
| 6           | 24              | .012     | 10          | 38              | .003     | 18          | 42              | .015     | 23          | 57              | .020     |
| 7           | 23              | .024     | 11          | 37              | .006     | 19          | 41              | .026     | 24          | 56              | .028     |
| 8           | 22              | .048     | 12          | 36              | .012     | 20          | 40              | .041     | 25          | 55              | .038     |
| 9           | 21              | .083     | 13          | 35              | .021     | 21          | 39              | .063     | 26          | 54              | .050     |
|             | (3,7)           |          | 14          | 34              | .036     | 22          | 38              | .089     | 27          | 53              | .065     |
| 6           | 27              | .008     | 15          | 33              | .055     |             | (5,7)           |          | 28          | 52              | .082     |
| 7           | 26              | .017     | 16          | 32              | .082     | 15          | 50              | .001     |             | (6,6)           |          |
| 8           | 25              | .033     |             | (4,8)           |          | 16          | 49              | .003     | 21          | 57              | .001     |
| 9           | 24              | .058     | 10          | 42              | .002     | 17          | 48              | .005     | 22          | 56              | .002     |
| 10          | 23              | .092     | 11          | 41              | .004     | 18          | 47              | .009     | 23          | 55              | .004     |

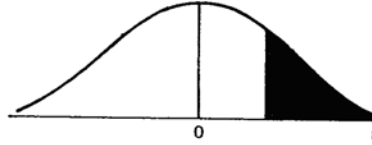
DISTRIBUTION OF THE RANK SUM  $T'$  (continued)

| $T'_\alpha$   | $T'_{1-\alpha}$ | $\alpha$ | $T'_\alpha$   | $T'_{1-\alpha}$ | $\alpha$ | $T'_\alpha$   | $T'_{1-\alpha}$ | $\alpha$ | $T'_\alpha$   | $T'_{1-\alpha}$ | $\alpha$ |
|---------------|-----------------|----------|---------------|-----------------|----------|---------------|-----------------|----------|---------------|-----------------|----------|
| (6,6) (Cont.) |                 |          | (6,9) (Cont.) |                 |          | (7,8) (Cont.) |                 |          | (8,8) (Cont.) |                 |          |
| 24            | 54              | .008     | 35            | 61              | .072     | 41            | 71              | .047     | 37            | 99              | .000     |
| 25            | 53              | .013     | 36            | 60              | .091     | 42            | 70              | .060     | 38            | 98              | .000     |
| 26            | 52              | .021     | (6,10)        |                 |          | 43            | 69              | .076     | 39            | 97              | .001     |
| 27            | 51              | .032     | 21            | 81              | .000     | 44            | 68              | .095     | 40            | 96              | .001     |
| 28            | 50              | .047     | 22            | 80              | .000     | 45            | 67              | .116     | 41            | 95              | .001     |
| 29            | 49              | .066     | 23            | 79              | .000     | (7,9)         |                 |          | 42            | 94              | .002     |
| 30            | 48              | .090     | 24            | 78              | .001     | 28            | 91              | .000     | 43            | 93              | .003     |
| (6,7)         |                 |          | 25            | 77              | .001     | 29            | 90              | .000     | 44            | 92              | .005     |
| 21            | 63              | .001     | 26            | 76              | .002     | 30            | 89              | .000     | 45            | 91              | .007     |
| 22            | 62              | .001     | 27            | 75              | .004     | 31            | 88              | .001     | 46            | 90              | .010     |
| 23            | 61              | .002     | 28            | 74              | .005     | 32            | 87              | .001     | 47            | 89              | .014     |
| 24            | 60              | .004     | 29            | 73              | .008     | 33            | 86              | .002     | 48            | 88              | .019     |
| 25            | 59              | .007     | 30            | 72              | .011     | 34            | 85              | .003     | 49            | 87              | .025     |
| 26            | 58              | .011     | 31            | 71              | .016     | 35            | 84              | .004     | 50            | 86              | .032     |
| 27            | 57              | .017     | 32            | 70              | .021     | 36            | 83              | .006     | 51            | 85              | .041     |
| 28            | 56              | .026     | 33            | 69              | .028     | 37            | 82              | .008     | 52            | 84              | .052     |
| 29            | 55              | .037     | 34            | 68              | .036     | 38            | 81              | .011     | 53            | 83              | .065     |
| 30            | 54              | .051     | 35            | 67              | .047     | 39            | 80              | .016     | 54            | 82              | .080     |
| 31            | 53              | .069     | 36            | 66              | .059     | 40            | 79              | .021     | 55            | 81              | .097     |
| 32            | 52              | .090     | 37            | 65              | .074     | 41            | 78              | .027     | (8,9)         |                 |          |
| (6,8)         |                 |          | 38            | 64              | .090     | 42            | 77              | .036     | 36            | 108             | .000     |
| 21            | 69              | .000     | (7,7)         |                 |          | 43            | 76              | .045     | 40            | 104             | .000     |
| 22            | 68              | .001     | 28            | 77              | .000     | 44            | 75              | .057     | 41            | 103             | .001     |
| 23            | 67              | .001     | 29            | 76              | .001     | 45            | 74              | .071     | 42            | 102             | .001     |
| 24            | 66              | .002     | 30            | 75              | .001     | 46            | 73              | .087     | 43            | 101             | .002     |
| 25            | 65              | .004     | 31            | 74              | .002     | (7,10)        |                 |          | 44            | 100             | .003     |
| 26            | 64              | .006     | 32            | 73              | .003     | 28            | 98              | .000     | 45            | 99              | .004     |
| 27            | 63              | .010     | 33            | 72              | .006     | 29            | 97              | .000     | 46            | 98              | .006     |
| 28            | 62              | .015     | 34            | 71              | .009     | 30            | 96              | .000     | 47            | 97              | .008     |
| 29            | 61              | .021     | 35            | 70              | .013     | 31            | 95              | .000     | 48            | 96              | .010     |
| 30            | 60              | .030     | 36            | 69              | .019     | 32            | 94              | .001     | 49            | 95              | .014     |
| 31            | 59              | .041     | 37            | 68              | .027     | 33            | 93              | .001     | 50            | 94              | .018     |
| 32            | 58              | .054     | 38            | 67              | .036     | 34            | 92              | .001     | 51            | 93              | .023     |
| 33            | 57              | .071     | 39            | 66              | .049     | 35            | 91              | .002     | 52            | 92              | .030     |
| 34            | 56              | .091     | 40            | 65              | .064     | 36            | 90              | .003     | 53            | 91              | .037     |
| (6,9)         |                 |          | 41            | 64              | .082     | 37            | 89              | .005     | 54            | 90              | .046     |
| 21            | 75              | .000     | (7,8)         |                 |          | 38            | 88              | .007     | 55            | 89              | .057     |
| 22            | 74              | .000     | 28            | 84              | .000     | 39            | 87              | .009     | 56            | 88              | .069     |
| 23            | 73              | .001     | 29            | 83              | .000     | 40            | 86              | .012     | 57            | 87              | .084     |
| 24            | 72              | .001     | 30            | 82              | .001     | 41            | 85              | .017     | (8,10)        |                 |          |
| 25            | 71              | .002     | 31            | 81              | .001     | 42            | 84              | .022     | 36            | 116             | .000     |
| 26            | 70              | .004     | 32            | 80              | .002     | 43            | 83              | .028     | 41            | 111             | .000     |
| 27            | 69              | .006     | 33            | 79              | .003     | 44            | 82              | .035     | 42            | 110             | .001     |
| 28            | 68              | .009     | 34            | 78              | .005     | 45            | 81              | .044     | 43            | 109             | .001     |
| 29            | 67              | .013     | 35            | 77              | .007     | 46            | 80              | .054     | 44            | 108             | .002     |
| 30            | 66              | .018     | 36            | 76              | .010     | 47            | 79              | .067     | 45            | 107             | .002     |
| 31            | 65              | .025     | 37            | 75              | .014     | 48            | 78              | .081     | 46            | 106             | .003     |
| 32            | 64              | .033     | 38            | 74              | .020     | 49            | 77              | .097     | 47            | 105             | .004     |
| 33            | 63              | .044     | 39            | 73              | .027     | (8,8)         |                 |          | 48            | 104             | .006     |
| 34            | 62              | .057     | 40            | 72              | .036     | 36            | 100             | .000     | 49            | 103             | .008     |

DISTRIBUTION OF THE RANK SUM  $T'$  (continued)

| $T'_\alpha$    | $T'_{1-\alpha}$ | $\alpha$ | $T'_\alpha$   | $T'_{1-\alpha}$ | $\alpha$ | $T'_\alpha$    | $T'_{1-\alpha}$ | $\alpha$ | $T'_\alpha$     | $T'_{1-\alpha}$ | $\alpha$ |
|----------------|-----------------|----------|---------------|-----------------|----------|----------------|-----------------|----------|-----------------|-----------------|----------|
| (8,10) (Cont.) |                 |          | (9,9) (Cont.) |                 |          | (9,10) (Cont.) |                 |          | (10,10) (Cont.) |                 |          |
| 50             | 102             | .010     | 58            | 113             | .007     | 58             | 122             | .004     | 69              | 141             | .003     |
| 51             | 101             | .013     | 59            | 112             | .009     | 59             | 121             | .005     | 70              | 140             | .003     |
| 52             | 100             | .017     | 60            | 111             | .012     | 60             | 120             | .007     | 71              | 139             | .004     |
| 53             | 99              | .022     | 61            | 110             | .016     | 61             | 119             | .009     | 72              | 138             | .006     |
| 54             | 98              | .027     | 62            | 109             | .020     | 62             | 118             | .011     | 73              | 137             | .007     |
| 55             | 97              | .034     | 63            | 108             | .025     | 63             | 117             | .014     | 74              | 136             | .009     |
| 56             | 96              | .042     | 64            | 107             | .031     | 64             | 116             | .017     | 75              | 135             | .012     |
| 57             | 95              | .051     | 65            | 106             | .039     | 65             | 115             | .022     | 76              | 134             | .014     |
| 58             | 94              | .061     | 66            | 105             | .047     | 66             | 114             | .027     | 77              | 133             | .018     |
| 59             | 93              | .073     | 67            | 104             | .057     | 67             | 113             | .033     | 78              | 132             | .022     |
| 60             | 92              | .086     | 68            | 103             | .068     | 68             | 112             | .039     | 79              | 131             | .026     |
|                | (9,9)           |          | 69            | 102             | .081     | 69             | 111             | .047     | 80              | 130             | .032     |
| 45             | 126             | .000     | 70            | 101             | .095     | 70             | 110             | .056     | 81              | 129             | .038     |
| 50             | 121             | .000     | (9,10)        |                 |          | 71             | 109             | .067     | 82              | 128             | .045     |
| 51             | 120             | .001     | 45            | 135             | .000     | 72             | 108             | .078     | 83              | 127             | .053     |
| 52             | 119             | .001     | 52            | 128             | .000     | 73             | 107             | .091     | 84              | 126             | .062     |
| 53             | 118             | .001     | 53            | 127             | .001     | (10,10)        |                 |          | 85              | 125             | .072     |
| 54             | 117             | .002     | 54            | 126             | .001     | 65             | 145             | .001     | 86              | 124             | .083     |
| 55             | 116             | .003     | 55            | 125             | .001     | 66             | 144             | .001     | 87              | 123             | .095     |
| 56             | 115             | .004     | 56            | 124             | .002     | 67             | 143             | .001     |                 |                 |          |
| 57             | 114             | .005     | 57            | 123             | .003     | 68             | 142             | .002     |                 |                 |          |



TABLE IV  $t$  DISTRIBUTION

| <i>df</i> | .100  | .050  | .025   | .010   | .005   | <i>df</i> |
|-----------|-------|-------|--------|--------|--------|-----------|
| 1         | 3.078 | 6.314 | 12.706 | 31.821 | 63.657 | 1         |
| 2         | 1.886 | 2.920 | 4.303  | 6.965  | 9.925  | 2         |
| 3         | 1.638 | 2.353 | 3.182  | 4.541  | 5.841  | 3         |
| 4         | 1.533 | 2.132 | 2.776  | 3.747  | 4.604  | 4         |
| 5         | 1.476 | 2.015 | 2.571  | 3.365  | 4.032  | 5         |
| 6         | 1.440 | 1.943 | 2.447  | 3.143  | 3.707  | 6         |
| 7         | 1.415 | 1.895 | 2.365  | 2.998  | 3.499  | 7         |
| 8         | 1.397 | 1.860 | 2.306  | 2.896  | 3.355  | 8         |
| 9         | 1.383 | 1.833 | 2.262  | 2.821  | 3.250  | 9         |
| 10        | 1.372 | 1.812 | 2.228  | 2.764  | 3.169  | 10        |
| 11        | 1.363 | 1.796 | 2.201  | 2.718  | 3.106  | 11        |
| 12        | 1.356 | 1.782 | 2.179  | 2.681  | 3.055  | 12        |
| 13        | 1.350 | 1.771 | 2.160  | 2.650  | 3.012  | 13        |
| 14        | 1.345 | 1.761 | 2.145  | 2.624  | 2.977  | 14        |
| 15        | 1.341 | 1.753 | 2.131  | 2.602  | 2.947  | 15        |
| 16        | 1.337 | 1.746 | 2.120  | 2.583  | 2.921  | 16        |
| 17        | 1.333 | 1.740 | 2.110  | 2.567  | 2.898  | 17        |
| 18        | 1.330 | 1.734 | 2.101  | 2.552  | 2.878  | 18        |
| 19        | 1.328 | 1.729 | 2.093  | 2.539  | 2.861  | 19        |
| 20        | 1.325 | 1.725 | 2.086  | 2.528  | 2.845  | 20        |
| 21        | 1.323 | 1.721 | 2.080  | 2.518  | 2.831  | 21        |
| 22        | 1.321 | 1.717 | 2.074  | 2.508  | 2.819  | 22        |
| 23        | 1.319 | 1.714 | 2.069  | 2.500  | 2.807  | 23        |
| 24        | 1.318 | 1.711 | 2.064  | 2.492  | 2.797  | 24        |
| 25        | 1.316 | 1.708 | 2.060  | 2.485  | 2.787  | 25        |
| 26        | 1.315 | 1.706 | 2.056  | 2.479  | 2.779  | 26        |
| 27        | 1.314 | 1.703 | 2.052  | 2.473  | 2.771  | 27        |
| 28        | 1.313 | 1.701 | 2.048  | 2.467  | 2.763  | 28        |
| 29        | 1.311 | 1.699 | 2.045  | 2.462  | 2.756  | 29        |
| inf.      | 1.282 | 1.645 | 1.960  | 2.326  | 2.576  | inf.      |

Bush Valley Landfill Site  
 26–27 August 2003  
 Wilcoxon Rank Sum Analysis (Run 1)

|                                     |          |
|-------------------------------------|----------|
| Population 1 size ( $n_1$ )         | 50       |
| Population 2 size ( $n_2$ )         | 52       |
| Total population size ( $n$ )       | 102      |
| Sum of Ranks ( $W_{rs}$ )           | 2896.5   |
| Large Sample Statistic ( $Z_{rs}$ ) | 2.152204 |
| Confidence Interval                 | 5.0%     |
| $Z_{1-\alpha}$                      | 1.645    |
| Accept or Reject $H_0$ ?            | REJECT   |

Bush Valley Landfill Site  
 26–27 August 2003  
 Wilcoxon Rank Sum Analysis, Run 1

| Grid No. | UTM Coordinates of Grid Node |          | Methane Conc. | Methane Conc. for Rank | Assign Pop. Set | Prelim Ranking | No. Ties<br>23 | Final Ranking | Pop. 1<br>$W_{rs}$<br>2896.5 |
|----------|------------------------------|----------|---------------|------------------------|-----------------|----------------|----------------|---------------|------------------------------|
|          | Easting                      | Northing |               |                        |                 |                |                |               |                              |
| 1        | 18391264                     | 4369160  | 1.29          | 1.29                   | 2               | 5              | 2              | 5.5           |                              |
| 2        | 18391275                     | 4369193  | 1.29          | 1.29                   | 2               | 5              | 2              | 5.5           |                              |
| 3        | 18391270                     | 4369221  | 1.05          | 1.05                   | 2               | 3              | 1              | 3             |                              |
| 4        | 18391258                     | 4369252  | 1.58          | 1.58                   | 2               | 16             | 1              | 16            |                              |
| 6        | 18391296                     | 4369251  | 1.22          | 1.22                   | 2               | 4              | 1              | 4             |                              |
| 7        | 18391311                     | 4369216  | 3.33          | 3.33                   | 2               | 76             | 1              | 76            |                              |
| 8        | 18391314                     | 4369185  | 1.4           | 1.4                    | 2               | 11             | 1              | 11            |                              |
| 9        | 18391313                     | 4369140  | 1.32          | 1.32                   | 2               | 8              | 1              | 8             |                              |
| 10       | 18391327                     | 4369141  | 1.37          | 1.37                   | 2               | 9              | 1              | 9             |                              |
| 11       | 18391330                     | 4369191  | 1.31          | 1.31                   | 2               | 7              | 1              | 7             |                              |
| 12       | 18391329                     | 4369221  | 1.65          | 1.65                   | 2               | 18             | 1              | 18            |                              |
| GVW1     | 18391302                     | 4369234  | 67.7          | 67.7                   | 2               | 102            | 1              | 102           |                              |
| 13       | 18391325                     | 4369248  | 3.11          | 3.11                   | 2               | 73             | 1              | 73            |                              |
| 16       | 18391353                     | 4369267  | 20.2          | 20.2                   | 2               | 91             | 1              | 91            |                              |
| 17       | 18391357                     | 4369250  | 2.08          | 2.08                   | 2               | 40             | 3              | 41            |                              |
| 18       | 18391355                     | 4369220  | 1.44          | 1.44                   | 2               | 12             | 1              | 12            |                              |
| 19       | 18391359                     | 4369189  | 1.7           | 1.7                    | 2               | 22             | 1              | 22            |                              |
| 20       | 18391354                     | 4369160  | 0.85          | 0.85                   | 2               | 1              | 1              | 1             |                              |
| 21       | 18391357                     | 4369141  | 0.9           | 0.9                    | 2               | 2              | 1              | 2             |                              |
| 22       | 18391384                     | 4369133  | 2.08          | 2.08                   | 2               | 40             | 3              | 41            |                              |
| 23       | 18391385                     | 4369154  | 5.5           | 5.5                    | 2               | 85             | 1              | 85            |                              |
| 24       | 18391391                     | 4369189  | 1.66          | 1.66                   | 2               | 19             | 1              | 19            |                              |
| 25       | 18391386                     | 4369214  | 1.39          | 1.39                   | 2               | 10             | 1              | 10            |                              |
| 26       | 18391386                     | 4369252  | 1.71          | 1.71                   | 2               | 23             | 1              | 23            |                              |
| 27       | 18391383                     | 4369280  | 34            | 34                     | 2               | 93             | 1              | 93            |                              |

continued

Bush Valley Landfill Site  
 26–27 August 2003  
 Wilsoxon Rank Sum Analysis, Run 1 (continued)

| Grid No. | UTM Coordinates of Grid Node |          | Methane Conc. | Methane Conc. for Rank | Assign Pop. Set | Prelim Ranking | No. Ties<br>23 | Final Ranking | Pop. 1<br>W <sub>rs</sub><br>2896.5 |
|----------|------------------------------|----------|---------------|------------------------|-----------------|----------------|----------------|---------------|-------------------------------------|
|          | Easting                      | Northing |               |                        |                 |                |                |               |                                     |
| 31       | 18391411                     | 4369330  | 55.25         | 55.25                  | 2               | 97             | 1              | 97            |                                     |
| 32       | 18391421                     | 4369310  | 52.27         | 52.27                  | 2               | 96             | 1              | 96            |                                     |
| 33       | 18391419                     | 4369278  | 2.27          | 2.27                   | 2               | 51             | 1              | 51            |                                     |
| 34       | 18391416                     | 4369251  | 1.54          | 1.54                   | 2               | 15             | 1              | 15            |                                     |
| GVW2     | 18391388                     | 4369226  | 65.8          | 65.8                   | 2               | 100            | 1              | 100           |                                     |
| 35       | 18391415                     | 4369219  | 1.67          | 1.67                   | 2               | 20             | 2              | 20.5          |                                     |
| 36       | 18391417                     | 4369190  | 1.86          | 1.86                   | 2               | 30             | 2              | 30.5          |                                     |
| 37       | 18391416                     | 4369161  | 2.38          | 2.38                   | 2               | 56             | 1              | 56            |                                     |
| 38       | 18391413                     | 4369142  | 1.88          | 1.88                   | 2               | 32             | 2              | 32.5          |                                     |
| 39       | 18391447                     | 4369148  | 2.22          | 2.22                   | 2               | 48             | 1              | 48            |                                     |
| 40       | 18391447                     | 4369168  | 2.08          | 2.08                   | 2               | 40             | 3              | 41            |                                     |
| 41       | 18391442                     | 4369190  | 2.71          | 2.71                   | 2               | 66             | 1              | 66            |                                     |
| 42       | 18391445                     | 4369220  | 38.36         | 38.36                  | 2               | 95             | 1              | 95            |                                     |
| 43       | 18391444                     | 4369251  | 2.01          | 2.01                   | 2               | 37             | 1              | 37            |                                     |
| 44       | 18391446                     | 4369279  | 3.85          | 3.85                   | 2               | 79             | 1              | 79            |                                     |
| 45       | 18391443                     | 4369312  | 2.65          | 2.65                   | 2               | 63             | 1              | 63            |                                     |
| 46       | 18391442                     | 4369341  | 3.98          | 3.98                   | 2               | 80             | 1              | 80            |                                     |
| 47       | 18391446                     | 4369352  | 3.13          | 3.13                   | 2               | 74             | 1              | 74            |                                     |
| 50       | 18391476                     | 4369373  | 4.12          | 4.12                   | 2               | 81             | 1              | 81            |                                     |
| 51       | 18391476                     | 4369341  | 1.79          | 1.79                   | 2               | 25             | 2              | 25.5          |                                     |
| 52       | 18391477                     | 4369310  | 1.98          | 1.98                   | 2               | 36             | 1              | 36            |                                     |
| 53       | 18391476                     | 4369279  | 2.57          | 2.57                   | 2               | 62             | 1              | 62            |                                     |
| GVW3     | 18391443                     | 4369261  | 65.2          | 65.2                   | 2               | 99             | 1              | 99            |                                     |
| 54       | 18391477                     | 4369249  | 1.91          | 1.91                   | 2               | 34             | 1              | 34            |                                     |
| 55       | 18391475                     | 4369219  | 3.34          | 3.34                   | 2               | 77             | 1              | 77            |                                     |
| 56       | 18391475                     | 4369189  | 1.76          | 1.76                   | 2               | 24             | 1              | 24            |                                     |
| 57       | 18391475                     | 4369161  | 2.41          | 2.41                   | 2               | 58             | 2              | 58.5          |                                     |
| 58       | 18391512                     | 4369164  | 2.81          | 2.81                   | 1               | 68             | 1              | 68            | 68                                  |
| 59       | 18391507                     | 4369190  | 1.84          | 1.84                   | 1               | 28             | 2              | 28.5          | 28.5                                |
| 60       | 18391504                     | 4369223  | 2.03          | 2.03                   | 1               | 38             | 1              | 38            | 38                                  |
| 61       | 18391506                     | 4369250  | 2.09          | 2.09                   | 1               | 43             | 1              | 43            | 43                                  |
| 62       | 18391510                     | 4369281  | 37.31         | 37.31                  | 1               | 94             | 1              | 94            | 94                                  |
| 63       | 18391504                     | 4369311  | 1.79          | 1.79                   | 1               | 25             | 2              | 25.5          | 25.5                                |
| 64       | 18391507                     | 4369341  | 7.11          | 7.11                   | 1               | 88             | 1              | 88            | 88                                  |
| 65       | 18391506                     | 4369371  | 5.54          | 5.54                   | 1               | 86             | 1              | 86            | 86                                  |
| 66       | 18391508                     | 4369390  | 6.56          | 6.56                   | 1               | 87             | 1              | 87            | 87                                  |
| 68       | 18391539                     | 4369412  | 5.05          | 5.05                   | 1               | 83             | 1              | 83            | 83                                  |
| 69       | 18391542                     | 4369398  | 2.16          | 2.16                   | 1               | 46             | 2              | 46.5          | 46.5                                |
| 70       | 18391532                     | 4369371  | 2.26          | 2.26                   | 1               | 49             | 2              | 49.5          | 49.5                                |
| 71       | 18391535                     | 4369340  | 3.01          | 3.01                   | 1               | 71             | 1              | 71            | 71                                  |
| 72       | 18391539                     | 4369309  | 2.75          | 2.75                   | 1               | 67             | 1              | 67            | 67                                  |
| GVW4     | 18391507                     | 4369293  | 67.2          | 67.2                   | 1               | 101            | 1              | 101           | 101                                 |

continued

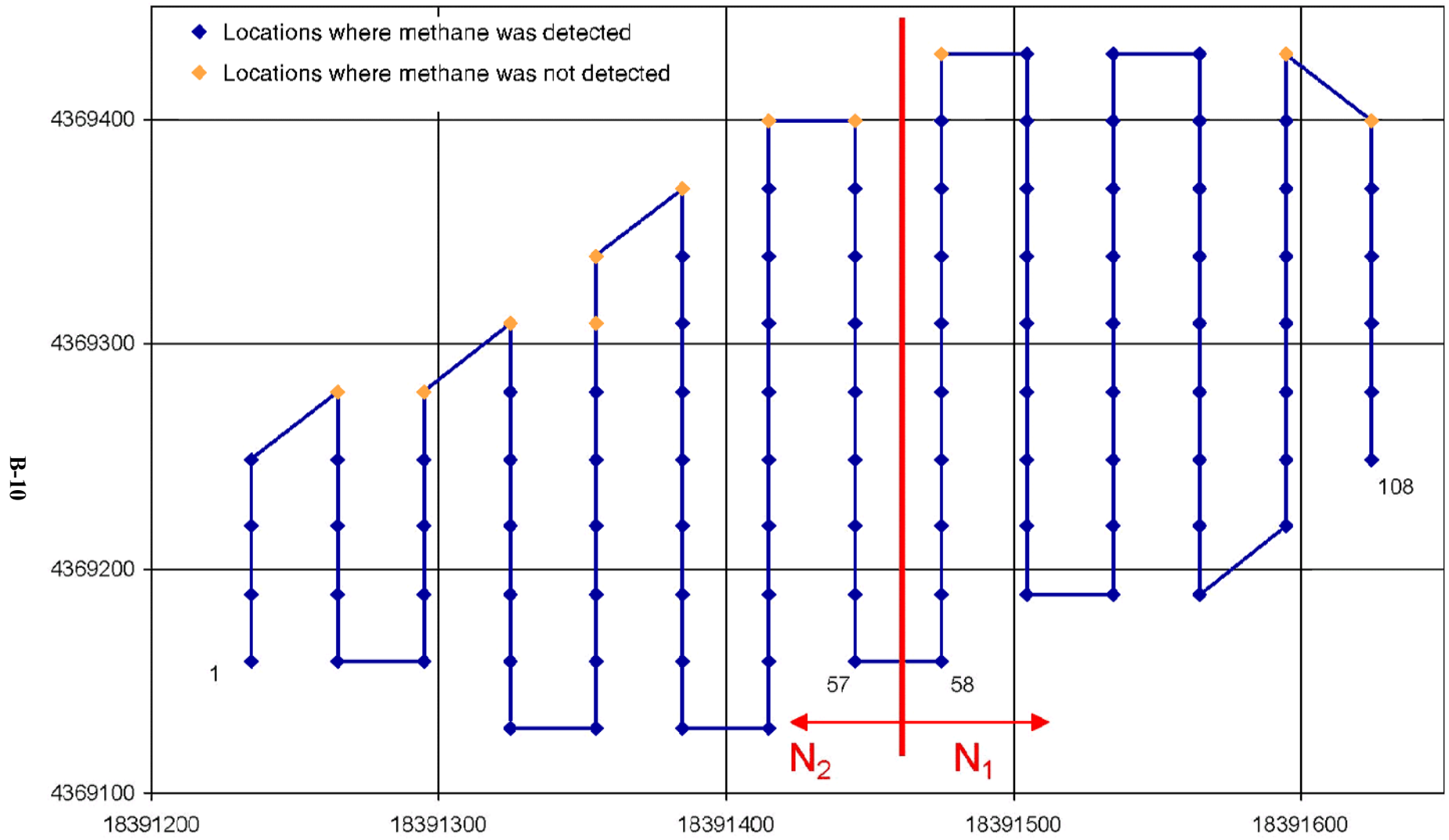
**Bush Valley, MD**

Bush Valley Landfill Site

26–27 August 2003

Wilsoxon Rank Sum Analysis, Run 1 (concluded)

| Grid No. | UTM Coordinates of Grid Node |          | Methane Conc. | Methane Conc. for Rank | Assign Pop. Set | Prelim Ranking | No. Ties 23 | Final Ranking | Pop. 1 $W_{rs}$ 2896.5 |
|----------|------------------------------|----------|---------------|------------------------|-----------------|----------------|-------------|---------------|------------------------|
|          | Easting                      | Northing |               |                        |                 |                |             |               |                        |
| 73       | 18391539                     | 2794369  | 2.26          | 2.26                   | 1               | 49             | 2           | 49.5          | 49.5                   |
| 74       | 18391535                     | 4369252  | 23.43         | 23.43                  | 1               | 92             | 1           | 92            | 92                     |
| 75       | 18391539                     | 4369220  | 3.49          | 3.49                   | 1               | 78             | 1           | 78            | 78                     |
| 76       | 18391536                     | 4369200  | 2.44          | 2.44                   | 1               | 60             | 1           | 60            | 60                     |
| 77       | 18391564                     | 4369206  | 3.08          | 3.08                   | 1               | 72             | 1           | 72            | 72                     |
| 78       | 18391566                     | 4369208  | 1.86          | 1.86                   | 1               | 30             | 2           | 30.5          | 30.5                   |
| 79       | 18391560                     | 4369252  | 2.83          | 2.83                   | 1               | 69             | 1           | 69            | 69                     |
| 80       | 18391565                     | 4369280  | 2.29          | 2.29                   | 1               | 52             | 2           | 52.5          | 52.5                   |
| 81       | 18391566                     | 4369312  | 4.31          | 4.31                   | 1               | 82             | 1           | 82            | 82                     |
| 82       | 18391563                     | 4369340  | 1.51          | 1.51                   | 1               | 14             | 1           | 14            | 14                     |
| GVW5     | 18391541                     | 4369343  | 62.9          | 62.9                   | 1               | 98             | 1           | 98            | 98                     |
| 83       | 18391564                     | 4369371  | 2.67          | 2.67                   | 1               | 64             | 1           | 64            | 64                     |
| 84       | 18391568                     | 4369400  | 1.84          | 1.84                   | 1               | 28             | 2           | 28.5          | 28.5                   |
| 85       | 18391566                     | 4369426  | 1.45          | 1.45                   | 1               | 13             | 1           | 13            | 13                     |
| 86       | 18391598                     | 4369420  | 1.67          | 1.67                   | 1               | 20             | 2           | 20.5          | 20.5                   |
| 87       | 18391595                     | 4369398  | 1.81          | 1.81                   | 1               | 27             | 1           | 27            | 27                     |
| 88       | 18391590                     | 4369372  | 1.88          | 1.88                   | 1               | 32             | 2           | 32.5          | 32.5                   |
| 89       | 18391586                     | 4369339  | 2.16          | 2.16                   | 1               | 46             | 2           | 46.5          | 46.5                   |
| 90       | 18391599                     | 4369310  | 2.55          | 2.55                   | 1               | 61             | 1           | 61            | 61                     |
| 91       | 18391597                     | 4369281  | 8.35          | 8.35                   | 1               | 90             | 1           | 90            | 90                     |
| 92       | 18391597                     | 4369249  | 2.4           | 2.4                    | 1               | 57             | 1           | 57            | 57                     |
| 93       | 18391596                     | 4369221  | 1.63          | 1.63                   | 1               | 17             | 1           | 17            | 17                     |
| 94       | 18391593                     | 4369217  | 2.41          | 2.41                   | 1               | 58             | 2           | 58.5          | 58.5                   |
| 95       | 18391626                     | 4369225  | 3.31          | 3.31                   | 1               | 75             | 1           | 75            | 75                     |
| 96       | 18391622                     | 4369250  | 2.29          | 2.29                   | 1               | 52             | 2           | 52.5          | 52.5                   |
| 97       | 18391620                     | 4369278  | 7.29          | 7.29                   | 1               | 89             | 1           | 89            | 89                     |
| 98       | 18391627                     | 4369311  | 5.2           | 5.2                    | 1               | 84             | 1           | 84            | 84                     |
| 99       | 18391628                     | 4369341  | 2.13          | 2.13                   | 1               | 44             | 1           | 44            | 44                     |
| 100      | 18391624                     | 4369370  | 1.95          | 1.95                   | 1               | 35             | 1           | 35            | 35                     |
| 101      | 18391627                     | 4369400  | 2.69          | 2.69                   | 1               | 65             | 1           | 65            | 65                     |
| 104      | 18391652                     | 4369370  | 2.88          | 2.88                   | 1               | 70             | 1           | 70            | 70                     |
| 105      | 18391650                     | 4369339  | 2.06          | 2.06                   | 1               | 39             | 1           | 39            | 39                     |
| 106      | 18391656                     | 4369308  | 2.32          | 2.32                   | 1               | 54             | 1           | 54            | 54                     |
| 107      | 18391658                     | 4369281  | 2.15          | 2.15                   | 1               | 45             | 1           | 45            | 45                     |
| 108      | 18391654                     | 4369252  | 2.34          | 2.34                   | 1               | 55             | 1           | 55            | 55                     |



Bush Valley Screening Sampling Locations for Wilcoxon Run 1 Populations

Bush Valley Landfill Site  
26–27 August 2003  
Wilcoxon Rank Sum Analysis (Run 2)

|                                     |          |
|-------------------------------------|----------|
| Population 1 size ( $n_1$ )         | 13       |
| Population 2 size ( $n_2$ )         | 39       |
| Total population size ( $n$ )       | 52       |
| Sum of Ranks ( $W_{rs}$ )           | 498      |
| Large Sample Statistic ( $Z_{rs}$ ) | 3.244169 |
| Confidence Interval                 | 5.0%     |
| $Z_{1-\alpha}$                      | 1.645    |
| Accept or Reject $H_0$ ?            | REJECT   |

Bush Valley Landfill Site  
26–27 August 2003  
Wilcoxon Rank Sum Analysis, Run 2

| Grid No. | UTM Coordinates of Grid Node |          | Methane Conc. | Methane Conc. for Rank | Assign Pop. Set | Prelim Ranking | No. Ties<br>5 | Final Ranking | Pop. 1<br>$W_{rs}$<br>498.0 |
|----------|------------------------------|----------|---------------|------------------------|-----------------|----------------|---------------|---------------|-----------------------------|
|          | Easting                      | Northing |               |                        |                 |                |               |               |                             |
| 1        | 18391264                     | 4369160  | 1.29          | 1.29                   | 2               | 5              | 2             | 5.5           |                             |
| 2        | 18391275                     | 4369193  | 1.29          | 1.29                   | 2               | 5              | 2             | 5.5           |                             |
| 3        | 18391270                     | 4369221  | 1.05          | 1.05                   | 2               | 3              | 1             | 3             |                             |
| 4        | 18391258                     | 4369252  | 1.58          | 1.58                   | 2               | 14             | 1             | 14            |                             |
| 6        | 18391296                     | 4369251  | 1.22          | 1.22                   | 2               | 4              | 1             | 4             |                             |
| 7        | 18391311                     | 4369216  | 3.33          | 3.33                   | 2               | 39             | 1             | 39            |                             |
| 8        | 18391314                     | 4369185  | 1.4           | 1.4                    | 2               | 11             | 1             | 11            |                             |
| 9        | 18391313                     | 4369140  | 1.32          | 1.32                   | 2               | 8              | 1             | 8             |                             |
| 10       | 18391327                     | 4369141  | 1.37          | 1.37                   | 2               | 9              | 1             | 9             |                             |
| 11       | 18391330                     | 4369191  | 1.31          | 1.31                   | 2               | 7              | 1             | 7             |                             |
| 12       | 18391329                     | 4369221  | 1.65          | 1.65                   | 2               | 15             | 1             | 15            |                             |
| GVW1     | 18391302                     | 4369234  | 67.7          | 67.7                   | 2               | 52             | 1             | 52            |                             |
| 13       | 18391325                     | 4369248  | 3.11          | 3.11                   | 2               | 37             | 1             | 37            |                             |
| 16       | 18391353                     | 4369267  | 20.2          | 20.2                   | 1               | 45             | 1             | 45            | 45                          |
| 17       | 18391357                     | 4369250  | 2.08          | 2.08                   | 2               | 27             | 3             | 28            |                             |
| 18       | 18391355                     | 4369220  | 1.44          | 1.44                   | 2               | 12             | 1             | 12            |                             |
| 19       | 18391359                     | 4369189  | 1.7           | 1.7                    | 2               | 18             | 1             | 18            |                             |
| 20       | 18391354                     | 4369160  | 0.85          | 0.85                   | 2               | 1              | 1             | 1             |                             |
| 21       | 18391357                     | 4369141  | 0.9           | 0.9                    | 2               | 2              | 1             | 2             |                             |
| 22       | 18391384                     | 4369133  | 2.08          | 2.08                   | 2               | 27             | 3             | 28            |                             |
| 23       | 18391385                     | 4369154  | 5.5           | 5.5                    | 2               | 44             | 1             | 44            |                             |
| 24       | 18391391                     | 4369189  | 1.66          | 1.66                   | 2               | 16             | 1             | 16            |                             |
| 25       | 18391386                     | 4369214  | 1.39          | 1.39                   | 2               | 10             | 1             | 10            |                             |
| 26       | 18391386                     | 4369252  | 1.71          | 1.71                   | 2               | 19             | 1             | 19            |                             |
| 27       | 18391383                     | 4369280  | 34            | 34                     | 1               | 46             | 1             | 46            | 46                          |

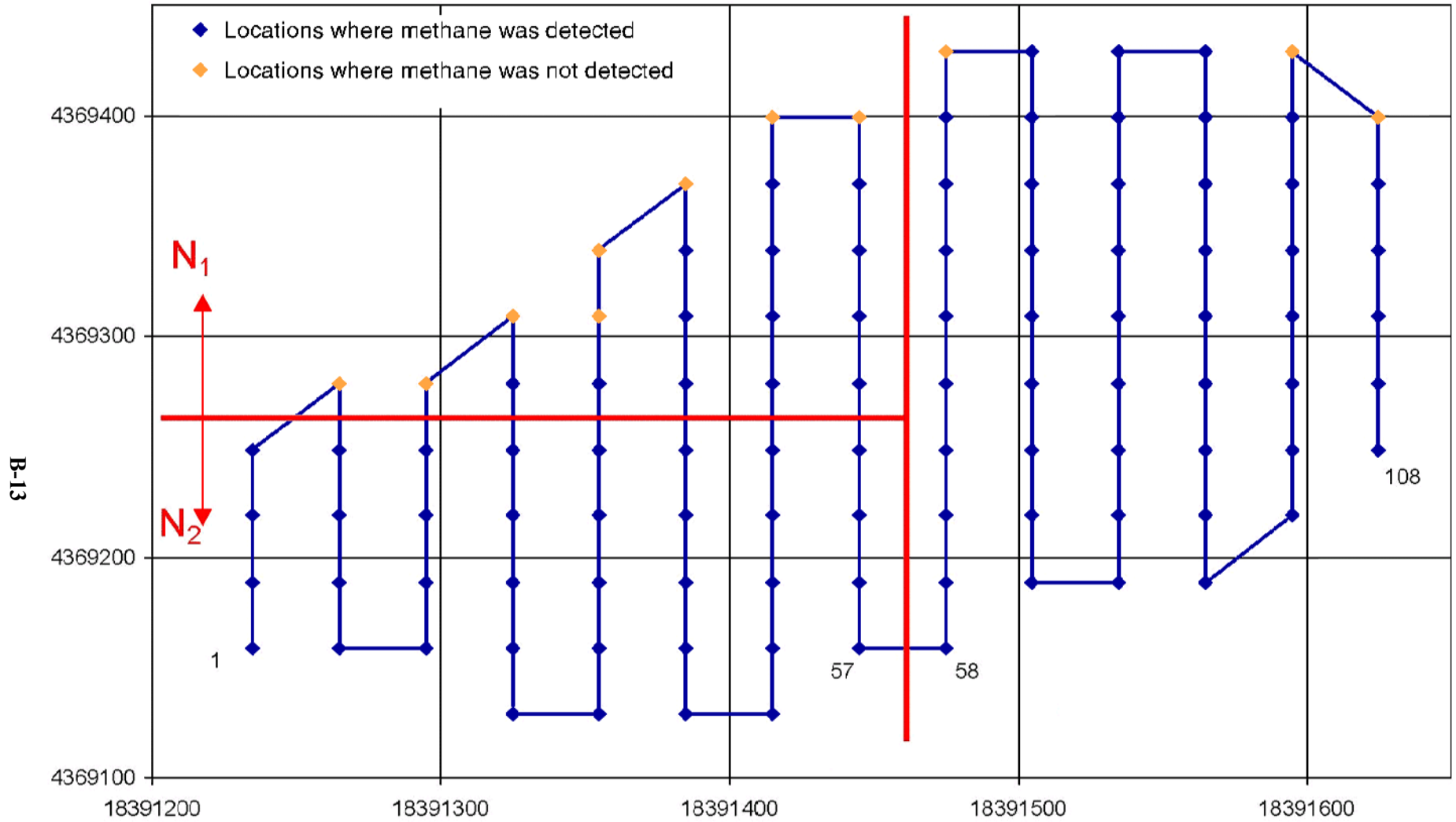
continued

Bush Valley Landfill Site

26–27 August 2003

Wilsoxon Rank Sum Analysis, Run 2 (concluded)

| Grid No. | UTM Coordinates of Grid Node |          | Methane Conc. | Methane Conc. for Rank | Assign Pop. Set | Prelim Ranking | No. Ties<br>23 | Final Ranking | Pop. 1<br>W <sub>s</sub><br>2896.5 |    |
|----------|------------------------------|----------|---------------|------------------------|-----------------|----------------|----------------|---------------|------------------------------------|----|
|          | Eastings                     | Northing |               |                        |                 |                |                |               |                                    |    |
|          | 31                           | 18391411 | 4369330       | 55.25                  | 55.25           | 1              | 49             | 1             | 49                                 | 49 |
|          | 32                           | 18391421 | 4369310       | 52.27                  | 52.27           | 1              | 48             | 1             | 48                                 | 48 |
|          | 33                           | 18391419 | 4369278       | 2.27                   | 2.27            | 1              | 31             | 1             | 31                                 | 31 |
|          | 34                           | 18391416 | 4369251       | 1.54                   | 1.54            | 2              | 13             | 1             | 13                                 |    |
| GVW2     | 18391388                     | 4369226  | 65.8          | 65.8                   | 2               | 51             | 1              | 51            |                                    |    |
|          | 35                           | 18391415 | 4369219       | 1.67                   | 1.67            | 2              | 17             | 1             | 17                                 |    |
|          | 36                           | 18391417 | 4369190       | 1.86                   | 1.86            | 2              | 22             | 1             | 22                                 |    |
|          | 37                           | 18391416 | 4369161       | 2.38                   | 2.38            | 2              | 32             | 1             | 32                                 |    |
|          | 38                           | 18391413 | 4369142       | 1.88                   | 1.88            | 2              | 23             | 1             | 23                                 |    |
|          | 39                           | 18391447 | 4369148       | 2.22                   | 2.22            | 2              | 30             | 1             | 30                                 |    |
|          | 40                           | 18391447 | 4369168       | 2.08                   | 2.08            | 2              | 27             | 3             | 28                                 |    |
|          | 41                           | 18391442 | 4369190       | 2.71                   | 2.71            | 2              | 36             | 1             | 36                                 |    |
|          | 42                           | 18391445 | 4369220       | 38.36                  | 38.36           | 2              | 47             | 1             | 47                                 |    |
|          | 43                           | 18391444 | 4369251       | 2.01                   | 2.01            | 2              | 26             | 1             | 26                                 |    |
|          | 44                           | 18391446 | 4369279       | 3.85                   | 3.85            | 1              | 41             | 1             | 41                                 | 41 |
|          | 45                           | 18391443 | 4369312       | 2.65                   | 2.65            | 1              | 35             | 1             | 35                                 | 35 |
|          | 46                           | 18391442 | 4369341       | 3.98                   | 3.98            | 1              | 42             | 1             | 42                                 | 42 |
|          | 47                           | 18391446 | 4369352       | 3.13                   | 3.13            | 1              | 38             | 1             | 38                                 | 38 |
|          | 50                           | 18391476 | 4369373       | 4.12                   | 4.12            | 1              | 43             | 1             | 43                                 | 43 |
|          | 51                           | 18391476 | 4369341       | 1.79                   | 1.79            | 1              | 21             | 1             | 21                                 | 21 |
|          | 52                           | 18391477 | 4369310       | 1.98                   | 1.98            | 1              | 25             | 1             | 25                                 | 25 |
|          | 53                           | 18391476 | 4369279       | 2.57                   | 2.57            | 1              | 34             | 1             | 34                                 | 34 |
| GVW3     | 18391443                     | 4369261  | 65.2          | 65.2                   | 2               | 50             | 1              | 50            |                                    |    |
|          | 54                           | 18391477 | 4369249       | 1.91                   | 1.91            | 2              | 24             | 1             | 24                                 |    |
|          | 55                           | 18391475 | 4369219       | 3.34                   | 3.34            | 2              | 40             | 1             | 40                                 |    |
|          | 56                           | 18391475 | 4369189       | 1.76                   | 1.76            | 2              | 20             | 1             | 20                                 |    |
|          | 57                           | 18391475 | 4369161       | 2.41                   | 2.41            | 2              | 33             | 1             | 33                                 |    |



Bush Valley Screening Sampling Locations for Wilcoxon Run 2 Populations



Bush Valley Landfill Site  
26–27 August 2003  
Wilcoxon Rank Sum Analysis (Run 3)

|                                     |          |
|-------------------------------------|----------|
| Population 1 size ( $n_1$ )         | 16       |
| Population 2 size ( $n_2$ )         | 34       |
| Total population size ( $n$ )       | 50       |
| Sum of Ranks ( $W_{rs}$ )           | 392      |
| Large Sample Statistic ( $Z_{rs}$ ) | -0.33279 |
| Confidence Interval                 | 5.0%     |
| $Z_{1-\alpha}$                      | 1.645    |
| Accept or Reject $H_0$ ?            | ACCEPT   |

Bush Valley Landfill Site  
26–27 August 2003  
Wilcoxon Rank Sum Analysis, Run 3

| Grid No. | UTM Coordinates of Grid Node |          | Methane Conc. | Methane Conc. for Rank | Assign Pop. Set | Prelim Ranking | No. Ties<br>8 | Final Ranking | Pop. 1<br>$W_{rs}$<br>392.0 |
|----------|------------------------------|----------|---------------|------------------------|-----------------|----------------|---------------|---------------|-----------------------------|
|          | Easting                      | Northing |               |                        |                 |                |               |               |                             |
| 58       | 18391512                     | 4369164  | 2.81          | 2.81                   | 1               | 332            | 1             | 32            | 32                          |
| 59       | 18391507                     | 4369190  | 1.84          | 1.84                   | 1               | 7              | 2             | 7.5           | 7.5                         |
| 60       | 18391504                     | 4369223  | 2.03          | 2.03                   | 1               | 12             | 1             | 12            | 12                          |
| 61       | 18391506                     | 4369250  | 2.09          | 2.09                   | 1               | 14             | 1             | 14            | 14                          |
| 62       | 18391510                     | 4369281  | 37.31         | 37.31                  | 2               | 48             | 1             | 48            |                             |
| 63       | 18391504                     | 4369311  | 1.79          | 1.79                   | 2               | 5              | 1             | 5             |                             |
| 64       | 18391507                     | 4369341  | 7.11          | 7.11                   | 2               | 44             | 1             | 44            |                             |
| 65       | 18391506                     | 4369371  | 5.54          | 5.54                   | 2               | 42             | 1             | 42            |                             |
| 66       | 18391508                     | 4369390  | 6.56          | 6.56                   | 2               | 43             | 1             | 43            |                             |
| 68       | 18391539                     | 4369412  | 5.05          | 5.05                   | 2               | 40             | 1             | 40            |                             |
| 69       | 18391542                     | 4369398  | 2.16          | 2.16                   | 2               | 17             | 2             | 17.5          |                             |
| 70       | 18391532                     | 4369371  | 2.26          | 2.26                   | 2               | 19             | 2             | 19.5          |                             |
| 71       | 18391535                     | 4369340  | 3.01          | 3.01                   | 2               | 35             | 1             | 35            |                             |
| 72       | 18391539                     | 4369309  | 2.75          | 2.75                   | 2               | 31             | 1             | 31            |                             |
| GVW4     | 18391507                     | 4369293  | 67.2          | 67.2                   | 2               | 50             | 1             | 50            |                             |
| 73       | 18391539                     | 2794369  | 2.26          | 2.26                   | 2               | 19             | 2             | 19.5          |                             |
| 74       | 18391535                     | 4369252  | 23.43         | 23.43                  | 1               | 47             | 1             | 47            | 47                          |
| 75       | 18391539                     | 4369220  | 3.49          | 3.49                   | 1               | 38             | 1             | 38            | 38                          |
| 76       | 18391536                     | 4369200  | 2.44          | 2.44                   | 1               | 27             | 1             | 27            | 27                          |
| 77       | 18391564                     | 4369206  | 3.08          | 3.08                   | 1               | 36             | 1             | 36            | 36                          |
| 78       | 18391566                     | 4369208  | 1.86          | 1.86                   | 1               | 9              | 1             | 9             | 9                           |
| 79       | 18391560                     | 4369252  | 2.83          | 2.83                   | 1               | 33             | 1             | 33            | 33                          |
| 80       | 18391565                     | 4369280  | 2.29          | 2.29                   | 2               | 21             | 2             | 21.5          |                             |
| 81       | 18391566                     | 4369312  | 4.31          | 4.31                   | 2               | 39             | 1             | 39            |                             |
| 82       | 18391563                     | 4369340  | 1.51          | 1.51                   | 2               | 2              | 1             | 2             |                             |

continued

**Bush Valley, MD**

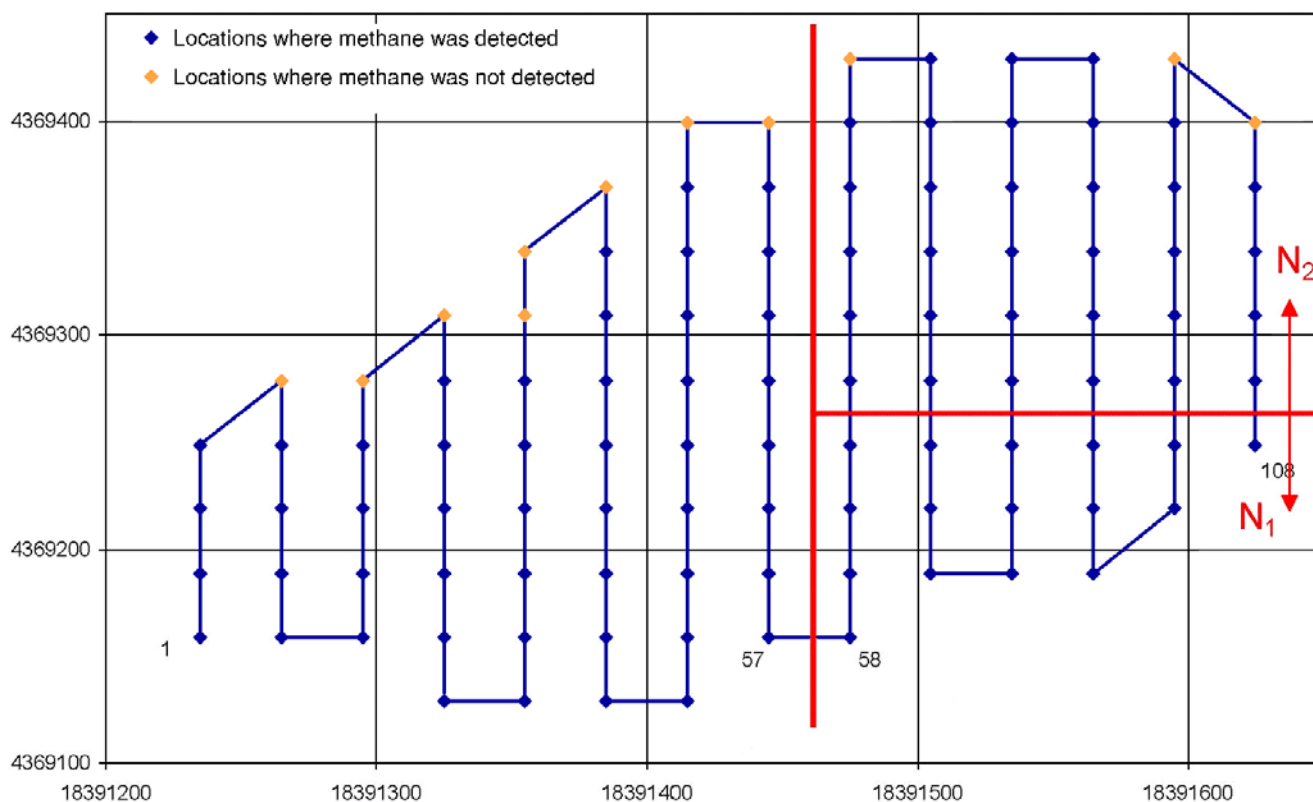
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Bush Valley Landfill Site

26–27 August 2003

Wilcoxon Rank Sum Analysis, Run 3 (concluded)

| Grid No. | UTM Coordinates of Grid Node |          | Methane Conc. | Methane Conc. for Rank | Assign Pop. Set | Prelim Ranking | No. Ties | Final Ranking | Pop. 1<br>W <sub>s</sub><br>392.0 |
|----------|------------------------------|----------|---------------|------------------------|-----------------|----------------|----------|---------------|-----------------------------------|
|          | Easting                      | Northing |               |                        |                 |                |          |               |                                   |
| GVW5     | 18391541                     | 4369343  | 62.9          | 62.9                   | 2               | 49             | 1        | 49            |                                   |
| 83       | 18391564                     | 4369371  | 2.67          | 2.67                   | 2               | 29             | 1        | 29            |                                   |
| 84       | 18391568                     | 4369400  | 1.84          | 1.84                   | 2               | 7              | 2        | 7.5           |                                   |
| 85       | 18391566                     | 4369426  | 1.45          | 1.45                   | 2               | 1              | 1        | 1             |                                   |
| 86       | 18391598                     | 4369420  | 1.67          | 1.67                   | 2               | 4              | 1        | 4             |                                   |
| 87       | 18391595                     | 4369398  | 1.81          | 1.81                   | 2               | 6              | 1        | 6             |                                   |
| 88       | 18391590                     | 4369372  | 1.88          | 1.88                   | 2               | 10             | 1        | 10            |                                   |
| 89       | 18391586                     | 4369339  | 2.16          | 2.16                   | 2               | 17             | 2        | 17.5          |                                   |
| 90       | 18391599                     | 4369310  | 2.55          | 2.55                   | 2               | 28             | 1        | 28            |                                   |
| 91       | 18391597                     | 4369281  | 8.35          | 8.35                   | 2               | 46             | 1        | 46            |                                   |
| 92       | 18391597                     | 4369249  | 2.4           | 2.4                    | 1               | 25             | 1        | 25            | 25                                |
| 93       | 18391596                     | 4369221  | 1.63          | 1.63                   | 1               | 3              | 1        | 3             | 3                                 |
| 94       | 18391593                     | 4369217  | 2.41          | 2.41                   | 1               | 26             | 1        | 26            | 26                                |
| 95       | 18391626                     | 4369225  | 3.31          | 3.31                   | 1               | 37             | 1        | 37            | 37                                |
| 96       | 18391622                     | 4369250  | 2.29          | 2.29                   | 1               | 21             | 2        | 21.5          | 21.5                              |
| 97       | 18391620                     | 4369278  | 7.29          | 7.29                   | 2               | 45             | 1        | 45            |                                   |
| 98       | 18391627                     | 4369311  | 5.2           | 5.2                    | 2               | 41             | 1        | 41            |                                   |
| 99       | 18391628                     | 4369341  | 2.13          | 2.13                   | 2               | 15             | 1        | 15            |                                   |
| 100      | 18391624                     | 4369370  | 1.95          | 1.95                   | 2               | 11             | 1        | 11            |                                   |
| 101      | 18391627                     | 4369400  | 2.69          | 2.69                   | 2               | 30             | 1        | 30            |                                   |
| 104      | 18391652                     | 4369370  | 2.88          | 2.88                   | 2               | 34             | 1        | 34            |                                   |
| 105      | 18391650                     | 4369339  | 2.06          | 2.06                   | 2               | 13             | 1        | 13            |                                   |
| 106      | 18391656                     | 4369308  | 2.32          | 2.32                   | 2               | 23             | 1        | 23            |                                   |
| 107      | 18391658                     | 4369281  | 2.15          | 2.15                   |                 | 16             | 1        | 16            |                                   |
| 108      | 18391654                     | 4369252  | 2.34          | 2.34                   | 1               | 24             | 1        | 24            | 24                                |



Bush Valley Screening Sampling Locations for Wilcoxon Run 3 Populations

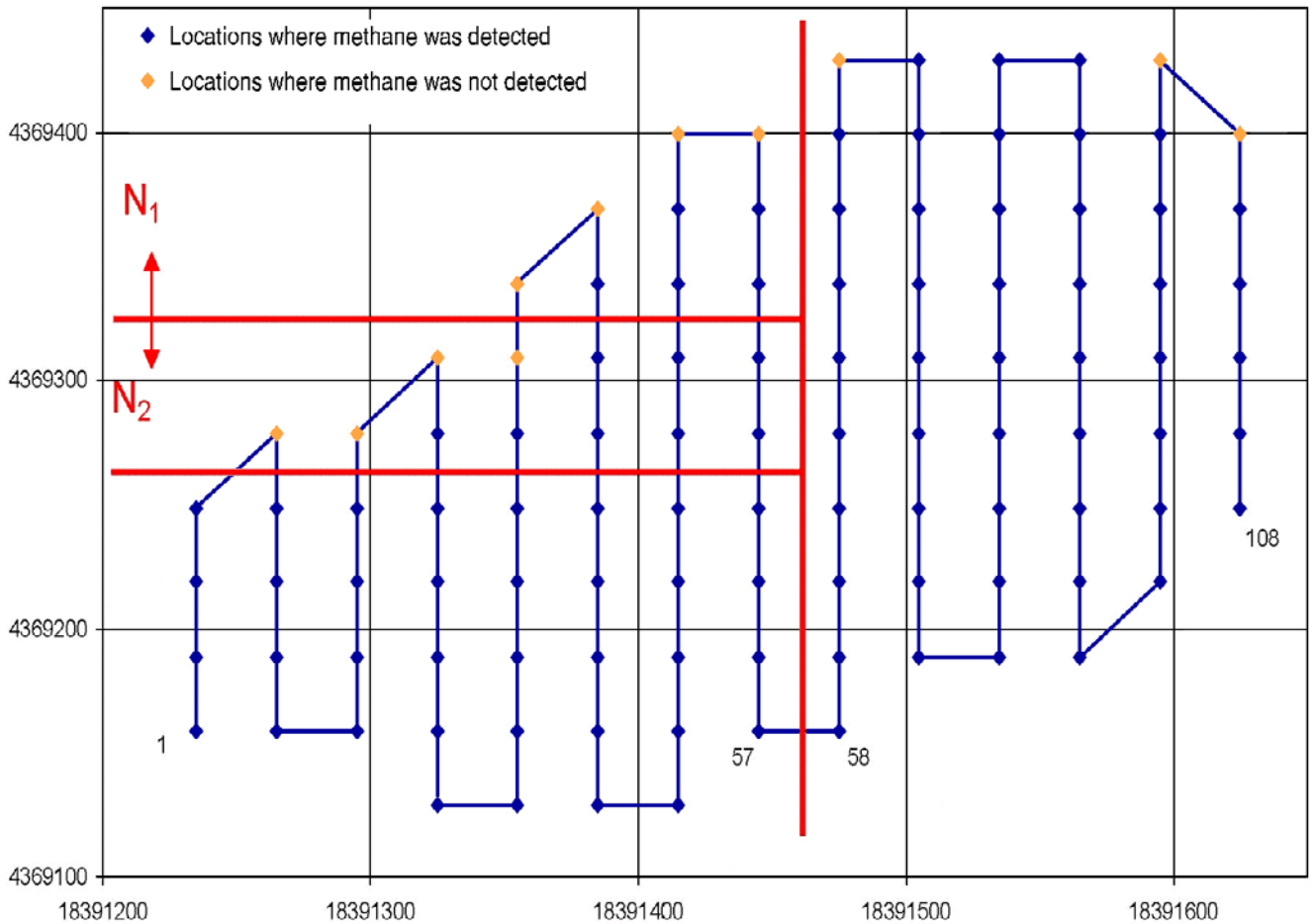
Bush Valley Landfill Site  
 26–27 August 2003  
 Wilcoxon Rank Sum Analysis (Run 4)

|                                     |                  |
|-------------------------------------|------------------|
| Population 1 size ( $n_1$ )         | 5                |
| Population 2 size ( $n_2$ )         | 8                |
| Total population size ( $n$ )       | 13               |
| Sum of Ranks ( $W_{rs}$ )           | 37               |
| Large Sample Statistic ( $Z_{rs}$ ) | Refer to Table X |
| Confidence Interval                 | 5.0%             |
| $Z_{1-\alpha}$                      | Refer to Table X |
| Accept or Reject $H_0$ ?            | ACCEPT           |

**Bush Valley, MD**

Bush Valley Landfill Site  
 26–27 August 2003  
 Wilcoxon Rank Sum Analysis, Run 4

| Grid No. | UTM Coordinates of Grid Node |          | Methane Conc. | Methane Conc. for Rank | Assign Pop. Set | Prelim Ranking | No. Ties 0 | Final Ranking | Pop. 1 $W_{rs}$ 37.0 |
|----------|------------------------------|----------|---------------|------------------------|-----------------|----------------|------------|---------------|----------------------|
|          | Easting                      | Northing |               |                        |                 |                |            |               |                      |
| 16       | 18391353                     | 4369267  | 20.2          | 20.2                   | 2               | 10             | 1          | 10            |                      |
| 27       | 18391383                     | 4369280  | 34            | 34                     | 2               | 11             | 1          | 11            |                      |
| 31       | 18391411                     | 4369330  | 55.25         | 55.25                  | 1               | 13             | 1          | 13            | 13                   |
| 32       | 18391421                     | 4369310  | 52.27         | 52.27                  | 2               | 12             | 1          | 12            |                      |
| 33       | 18391419                     | 4369278  | 2.27          | 2.27                   | 2               | 3              | 1          | 3             |                      |
| 44       | 18391446                     | 4369279  | 3.85          | 3.85                   | 2               | 7              | 1          | 7             |                      |
| 45       | 18391443                     | 4369312  | 2.65          | 2.65                   | 2               | 5              | 1          | 5             |                      |
| 46       | 18391442                     | 4369341  | 3.98          | 3.98                   | 1               | 8              | 1          | 8             | 8                    |
| 47       | 18391446                     | 4369352  | 3.13          | 3.13                   | 1               | 6              | 1          | 6             | 6                    |
| 50       | 18391476                     | 4369373  | 4.12          | 4.12                   | 1               | 9              | 1          | 9             | 9                    |
| 51       | 18391476                     | 4369341  | 1.79          | 1.79                   | 1               | 1              | 1          | 1             | 1                    |
| 52       | 18391477                     | 4369310  | 1.98          | 1.98                   | 2               | 2              | 1          | 2             |                      |
| 53       | 18391476                     | 4369279  | 2.57          | 2.57                   | 2               | 4              | 1          | 4             |                      |



Bush Valley Screening Sampling Locations for Wilcoxon Run 4 Populations

Bush Valley Landfill Site  
26–27 August 2003  
Wilcoxon Rank Sum Analysis (Run 5)

|                                     |          |
|-------------------------------------|----------|
| Population 1 size ( $n_1$ )         | 16       |
| Population 2 size ( $n_2$ )         | 23       |
| Total population size ( $n$ )       | 39       |
| Sum of Ranks ( $W_{rs}$ )           | 429      |
| Large Sample Statistic ( $Z_{rs}$ ) | 3.112957 |
| Confidence Interval                 | 5.0%     |
| $Z_{1-\alpha}$                      | 1.645    |
| Accept or Reject $H_0$ ?            | REJECT   |

Bush Valley Landfill Site  
26–27 August 2003  
Wilcoxon Rank Sum Analysis, Run 5

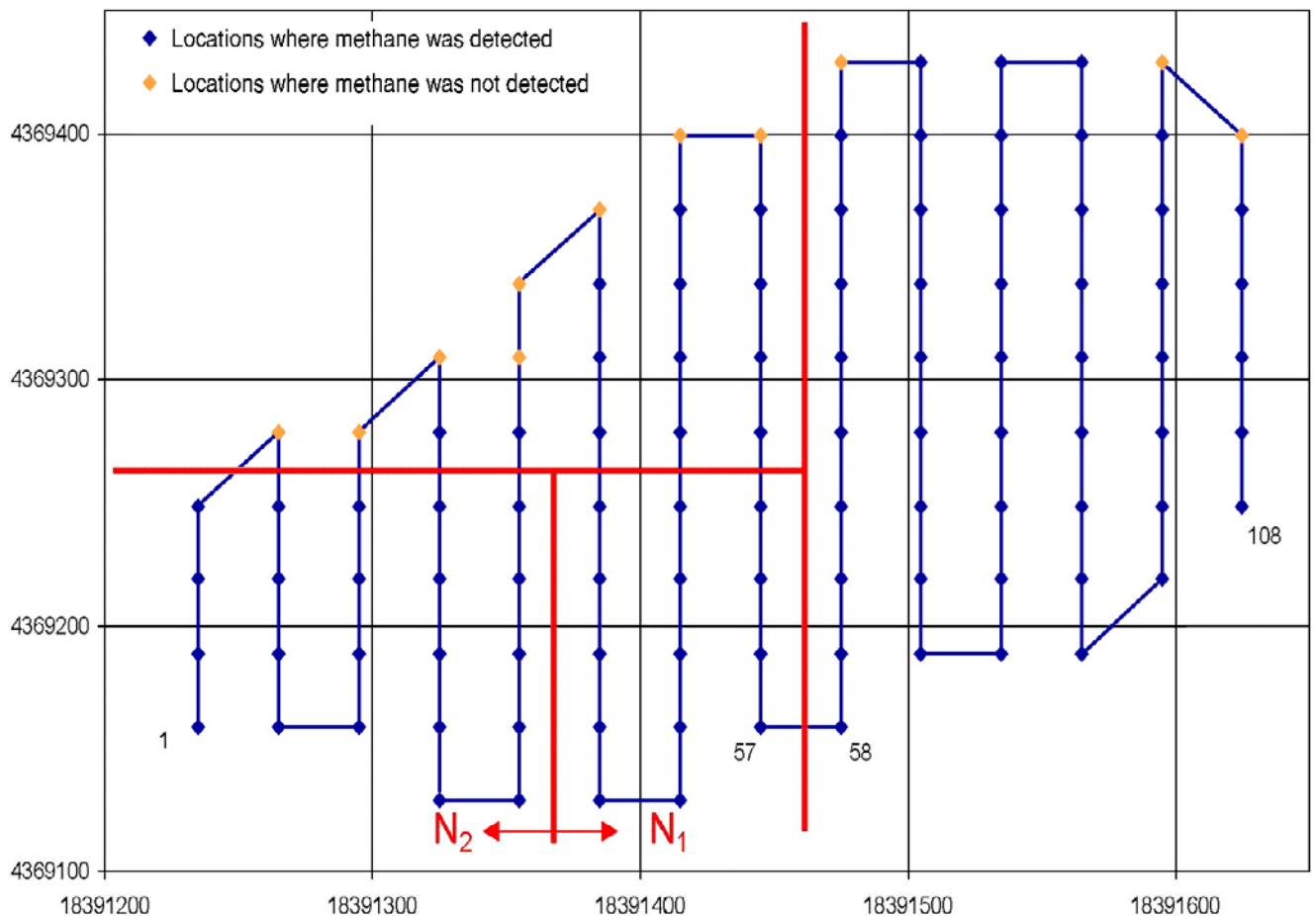
| Grid No. | UTM Coordinates of Grid Node |          | Methane Conc. | Methane Conc. for Rank | Assign Pop. Set | Prelim Ranking | No. Ties<br>5 | Final Ranking | Pop. 1<br>$W_{rs}$<br>429.0 |
|----------|------------------------------|----------|---------------|------------------------|-----------------|----------------|---------------|---------------|-----------------------------|
|          | Easting                      | Northing |               |                        |                 |                |               |               |                             |
| 1        | 18391264                     | 4369160  | 1.29          | 1.29                   | 2               | 5              | 2             | 5.5           |                             |
| 2        | 18391275                     | 4369193  | 1.29          | 1.29                   | 2               | 5              | 2             | 5.5           |                             |
| 3        | 18391270                     | 4369221  | 1.05          | 1.05                   | 2               | 3              | 1             | 3             |                             |
| 4        | 18391258                     | 4369252  | 1.58          | 1.58                   | 2               | 14             | 1             | 14            |                             |
| 6        | 18391296                     | 4369251  | 1.22          | 1.22                   | 2               | 4              | 1             | 4             |                             |
| 7        | 18391311                     | 4369216  | 3.33          | 3.33                   | 2               | 33             | 1             | 33            |                             |
| 8        | 18391314                     | 4369185  | 1.4           | 1.4                    | 2               | 11             | 1             | 11            |                             |
| 9        | 18391313                     | 4369140  | 1.32          | 1.32                   | 2               | 8              | 1             | 8             |                             |
| 10       | 18391327                     | 4369141  | 1.37          | 1.37                   | 2               | 9              | 1             | 9             |                             |
| 11       | 18391330                     | 4369191  | 1.31          | 1.31                   | 2               | 7              | 1             | 7             |                             |
| 12       | 18391329                     | 4369221  | 1.65          | 1.65                   | 2               | 15             | 1             | 15            |                             |
| GVW1     | 18391302                     | 4369234  | 67.7          | 67.7                   | 2               | 39             | 1             | 39            |                             |
| 13       | 18391325                     | 4369248  | 3.11          | 3.11                   | 2               | 32             | 1             | 32            |                             |
| 17       | 18391357                     | 4369250  | 2.08          | 2.08                   | 2               | 25             | 3             | 26            |                             |
| 18       | 18391355                     | 4369220  | 1.44          | 1.44                   | 2               | 12             | 1             | 12            |                             |
| 19       | 18391359                     | 4369189  | 1.7           | 1.7                    | 2               | 18             | 1             | 18            |                             |
| 20       | 18391354                     | 4369160  | 0.85          | 0.85                   | 2               | 1              | 1             | 1             |                             |
| 21       | 18391357                     | 4369141  | 0.9           | 0.9                    | 2               | 2              | 1             | 2             |                             |
| 22       | 18391384                     | 4369133  | 2.08          | 2.08                   | 2               | 25             | 3             | 26            |                             |
| 23       | 18391385                     | 4369154  | 5.5           | 5.5                    | 2               | 35             | 1             | 35            |                             |
| 24       | 18391391                     | 4369189  | 1.66          | 1.66                   | 2               | 16             | 1             | 16            |                             |
| 25       | 18391386                     | 4369214  | 1.39          | 1.39                   | 2               | 10             | 1             | 10            |                             |
| 26       | 18391386                     | 4369252  | 1.71          | 1.71                   | 2               | 19             | 1             | 19            |                             |
| 34       | 18391416                     | 4369251  | 1.54          | 1.54                   | 1               | 13             | 1             | 13            | 13                          |
| GVW2     | 18391388                     | 4369226  | 65.8          | 65.8                   | 1               | 38             | 1             | 38            | 38                          |

continued

**Bush Valley, MD**

Bush Valley Landfill Site  
 26–27 August 2003  
 Wilcoxon Rank Sum Analysis, Run 5 (concluded)

| Grid No. | UTM Coordinates of Grid Node |          | Methane Conc. | Methane Conc. for Rank | Assign Pop. Set | Prelim Ranking | No. Ties 5 | Final Ranking | Pop. 1 $W_s$ 429.0 |
|----------|------------------------------|----------|---------------|------------------------|-----------------|----------------|------------|---------------|--------------------|
|          | Easting                      | Northing |               |                        |                 |                |            |               |                    |
| 35       | 18391415                     | 4369219  | 1.67          | 1.67                   | 1               | 17             | 1          | 17            | 17                 |
| 36       | 18391417                     | 4369190  | 1.86          | 1.86                   | 1               | 21             | 1          | 21            | 21                 |
| 37       | 18391416                     | 4369161  | 2.38          | 2.38                   | 1               | 29             | 1          | 29            | 29                 |
| 38       | 18391413                     | 4369142  | 1.88          | 1.88                   | 1               | 22             | 1          | 22            | 22                 |
| 39       | 18391447                     | 4369148  | 2.22          | 2.22                   | 1               | 28             | 1          | 28            | 28                 |
| 40       | 18391447                     | 4369168  | 2.08          | 2.08                   | 1               | 25             | 3          | 26            | 26                 |
| 41       | 18391442                     | 4369190  | 2.71          | 2.71                   | 1               | 31             | 1          | 31            | 31                 |
| 42       | 18391445                     | 4369220  | 38.36         | 38.36                  | 1               | 36             | 1          | 36            | 36                 |
| 43       | 18391444                     | 4369251  | 2.01          | 2.01                   | 1               | 24             | 1          | 24            | 24                 |
| GVW3     | 18391443                     | 4369261  | 65.2          | 65.2                   | 1               | 37             | 1          | 37            | 37                 |
| 54       | 18391477                     | 4369249  | 1.91          | 1.91                   | 1               | 23             | 1          | 23            | 23                 |
| 55       | 18391475                     | 4369219  | 3.34          | 3.34                   | 1               | 34             | 1          | 34            | 34                 |
| 56       | 18391475                     | 4369189  | 1.76          | 1.76                   | 1               | 20             | 1          | 20            | 20                 |
| 57       | 18391475                     | 4369161  | 2.41          | 2.41                   | 1               | 30             | 1          | 30            | 30                 |



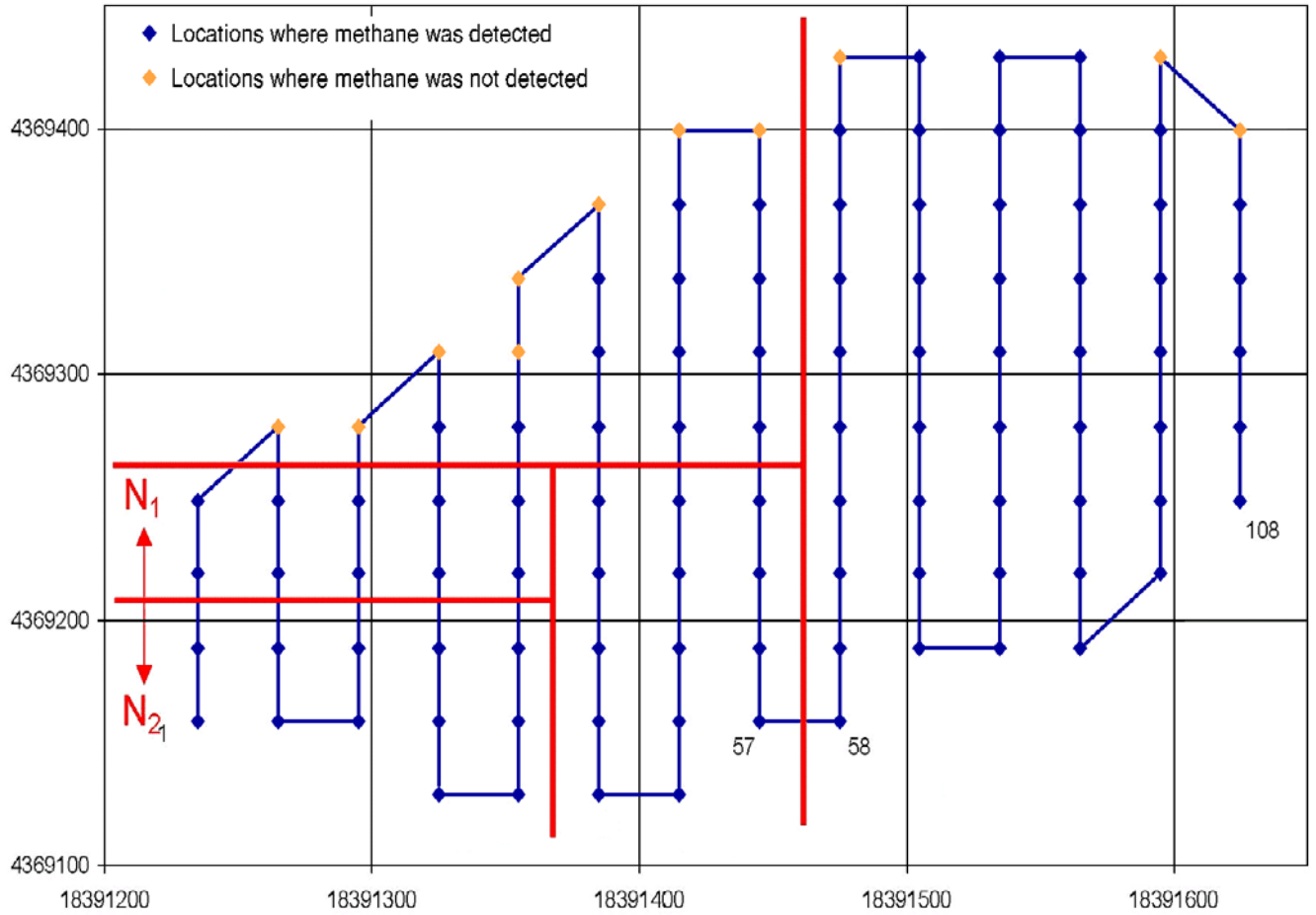
Bush Valley Screening Sampling Locations for Wilcoxon Run 5 Populations

Bush Valley Landfill Site  
26–27 August 2003  
Wilcoxon Rank Sum Analysis (Run 6)

|                                     |         |
|-------------------------------------|---------|
| Population 1 size ( $n_1$ )         | 11      |
| Population 2 size ( $n_2$ )         | 12      |
| Total population size ( $n$ )       | 23      |
| Sum of Ranks ( $W_{rs}$ )           | 155.5   |
| Large Sample Statistic ( $Z_{rs}$ ) | 1.44704 |
| Confidence Interval                 | 5.0%    |
| $Z_{1-\alpha}$                      | 1.714   |
| Accept or Reject $H_0$ ?            | ACCEPT  |

Bush Valley Landfill Site  
26–27 August 2003  
Wilcoxon Rank Sum Analysis, Run 6

| Grid No. | UTM Coordinates of Grid Node |          | Methane Conc. | Methane Conc. for Rank | Assign Pop. Set | Prelim Ranking | No. Ties<br>4 | Final Ranking | Pop. 1<br>$W_{rs}$<br>155.5 |
|----------|------------------------------|----------|---------------|------------------------|-----------------|----------------|---------------|---------------|-----------------------------|
|          | Easting                      | Northing |               |                        |                 |                |               |               |                             |
| 1        | 18391264                     | 4369160  | 1.29          | 1.29                   | 2               | 5              | 2             | 5.5           |                             |
| 2        | 18391275                     | 4369193  | 1.29          | 1.29                   | 2               | 5              | 2             | 5.5           |                             |
| 3        | 18391270                     | 4369221  | 1.05          | 1.05                   | 1               | 3              | 1             | 3             | 3                           |
| 4        | 18391258                     | 4369252  | 1.58          | 1.58                   | 1               | 13             | 1             | 13            | 13                          |
| 6        | 18391296                     | 4369251  | 1.22          | 1.22                   | 1               | 4              | 1             | 4             | 4                           |
| 7        | 18391311                     | 4369216  | 3.33          | 3.33                   | 1               | 21             | 1             | 21            | 21                          |
| 8        | 18391314                     | 4369185  | 1.4           | 1.4                    | 2               | 11             | 1             | 11            |                             |
| 9        | 18391313                     | 4369140  | 1.32          | 1.32                   | 2               | 8              | 1             | 8             |                             |
| 10       | 18391327                     | 4369141  | 1.37          | 1.37                   | 2               | 9              | 1             | 9             |                             |
| 11       | 18391330                     | 4369191  | 1.31          | 1.31                   | 2               | 7              | 1             | 7             |                             |
| 12       | 18391329                     | 4369221  | 1.65          | 1.65                   | 1               | 14             | 1             | 14            | 14                          |
| GVW1     | 18391302                     | 4369234  | 67.7          | 67.7                   | 1               | 23             | 1             | 23            | 23                          |
| 13       | 18391325                     | 4369248  | 3.11          | 3.11                   | 1               | 20             | 1             | 20            | 20                          |
| 17       | 18391357                     | 4369250  | 2.08          | 2.08                   | 1               | 18             | 2             | 18.5          | 18.5                        |
| 18       | 18391355                     | 4369220  | 1.44          | 1.44                   | 1               | 12             | 1             | 12            | 12                          |
| 19       | 18391359                     | 4369189  | 1.7           | 1.7                    | 2               | 16             | 1             | 16            |                             |
| 20       | 18391354                     | 4369160  | 0.85          | 0.85                   | 2               | 1              | 1             | 1             |                             |
| 21       | 18391357                     | 4369141  | 0.9           | 0.9                    | 2               | 2              | 1             | 2             |                             |
| 22       | 18391384                     | 4369133  | 2.08          | 2.08                   | 2               | 18             | 2             | 18.5          |                             |
| 23       | 18391385                     | 4369154  | 5.5           | 5.5                    | 2               | 22             | 1             | 22            |                             |
| 24       | 18391391                     | 4369189  | 1.66          | 1.66                   | 2               | 15             | 1             | 15            |                             |
| 25       | 18391386                     | 4369214  | 1.39          | 1.39                   | 1               | 10             | 1             | 10            | 10                          |
| 26       | 18391386                     | 4369252  | 1.71          | 1.71                   | 1               | 17             | 1             | 17            | 17                          |



Bush Valley Screening Sampling Locations for Wilcoxon Run 6 Populations

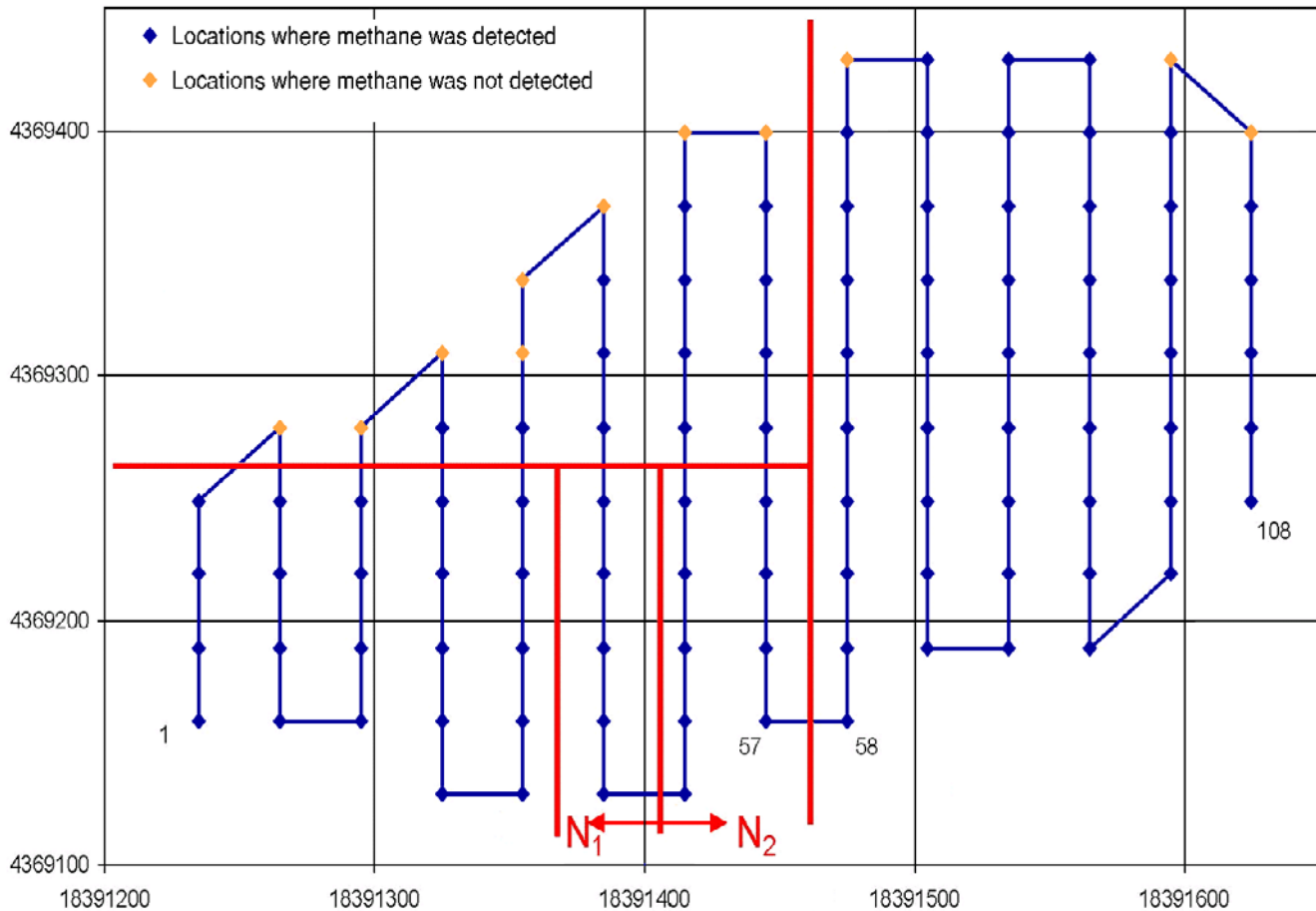
Bush Valley Landfill Site  
 26–27 August 2003  
 Wilcoxon Rank Sum Analysis (Run 7)

|                                     |                  |
|-------------------------------------|------------------|
| Population 1 size ( $n_1$ )         | 6                |
| Population 2 size ( $n_2$ )         | 10               |
| Total population size ( $n$ )       | 16               |
| Sum of Ranks ( $W_{rs}$ )           | 38               |
| Large Sample Statistic ( $Z_{rs}$ ) | Refer to Table X |
| Confidence Interval                 | 5.0%             |
| $Z_{1-\alpha}$                      | Refer to Table X |
| Accept or Reject $H_0$ ?            | ACCEPT           |



Bush Valley Landfill Site  
 26–27 August 2003  
 Wilcoxon Rank Sum Analysis, Run 7

| Grid No. | UTM Coordinates of Grid Node |          | Methane Conc. | Methane Conc. for Rank | Assign Pop. Set | Prelim Ranking | No. Ties 0 | Final Ranking | Pop. 1 $W_r$ 38.0 |
|----------|------------------------------|----------|---------------|------------------------|-----------------|----------------|------------|---------------|-------------------|
|          | Easting                      | Northing |               |                        |                 |                |            |               |                   |
| 34       | 18391416                     | 4369251  | 1.54          | 1.54                   | 1               | 1              | 1          | 1             | 1                 |
| GVW2     | 18391388                     | 4369226  | 65.8          | 65.8                   | 1               | 16             | 1          | 1             | 16                |
| 35       | 18391415                     | 4369219  | 1.67          | 1.67                   | 1               | 2              | 1          | 2             | 2                 |
| 36       | 18391417                     | 4369190  | 1.86          | 1.86                   | 1               | 4              | 1          | 4             | 4                 |
| 37       | 18391416                     | 4369161  | 2.38          | 2.38                   | 1               | 10             | 1          | 10            | 10                |
| 38       | 18391413                     | 4369142  | 1.88          | 1.88                   | 1               | 5              | 1          | 5             | 5                 |
| 39       | 18391447                     | 4369148  | 2.22          | 2.22                   | 2               | 9              | 1          | 9             |                   |
| 40       | 18391447                     | 4369168  | 2.08          | 2.08                   | 2               | 8              | 1          | 8             |                   |
| 41       | 18391442                     | 4369190  | 2.71          | 2.71                   | 2               | 12             | 1          | 12            |                   |
| 42       | 18391445                     | 4369220  | 38.36         | 38.36                  | 2               | 14             | 1          | 14            |                   |
| 43       | 18391444                     | 4369251  | 2.01          | 2.01                   | 2               | 7              | 1          | 7             |                   |
| GVW3     | 18391443                     | 4369261  | 65.2          | 65.2                   | 2               | 15             | 1          | 15            |                   |
| 54       | 18391477                     | 4369249  | 1.91          | 1.91                   | 2               | 6              | 1          | 6             |                   |
| 55       | 18391475                     | 4369219  | 3.34          | 3.34                   | 2               | 13             | 1          | 13            |                   |
| 56       | 18391475                     | 4369189  | 1.76          | 1.76                   | 2               | 3              | 1          | 3             |                   |
| 57       | 18391475                     | 4369161  | 2.41          | 2.41                   | 2               | 11             | 1          | 11            |                   |



Bush Valley Screening Sampling Locations for Wilcoxon Run 7 Populations

**Appendix C**  
**Laboratory Results**

**Table 1.** Summary of Volatile Organic Compound Laboratory Analysis Results.

Bush Valley Landfill, Harford County, MD  
November 2003

| Sample Number                    | 15731          | 15732    | 15733  | 15734  | 15735  | 15736  | 15737  | 15738  |
|----------------------------------|----------------|----------|--------|--------|--------|--------|--------|--------|
| Sample Location                  | GVW1           | GVW1 Dup | GVW2   | GVW3   | GVW4   | GVW5   | GMP7   | TMP7   |
| Substance                        | (ppbv)         | (ppbv)   | (ppbv) | (ppbv) | (ppbv) | (ppbv) | (ppbv) | (ppbv) |
| 1,1-Dichloroethane               | U <sup>a</sup> | U        | 12     | U      | U      | 68     | 70     | 570    |
| 1,1-Dichloroethene               | U              | U        | U      | U      | U      | U      | 18     | 39     |
| 1,2-Dichlorobenzene              | 73             | 72       | U      | U      | U      | U      | U      | U      |
| 1,2-Dichloroethane               | 94             | 96       | U      | U      | U      | 68     | 3.7    | 220    |
| cis-1,2-Dichloroethene           | 61             | 62       | 36     | U      | 41     | 120    | 1000   | 440    |
| trans-1,2-Dichloroethene         | U              | U        | U      | U      | U      | U      | 27     | 170    |
| 1,2-Dichloropropane              | U              | U        | U      | U      | U      | U      | U      | U      |
| 1,4-Dichlorobenzene              | 180            | 170      | 25     | 290    | 320    | 140    | U      | 90     |
| 1,1,1-Trichloroethane            | U              | U        | U      | U      | U      | U      | U      | 30     |
| 1,2,4-Trimethylbenzene           | 640            | 620      | 1000   | 1100   | 920    | 710    | U      | U      |
| 1,3,5-Trimethylbenzene           | 270            | 270      | 300    | 470    | 400    | 290    | U      | U      |
| 2-Butanone (Methyl Ethyl Ketone) | 1200           | 1200     | 460    | 210    | 570    | 870    | 720    | 190    |
| 2-Propanol                       | 280            | 220      | U      | U      | U      | U      | U      | 29     |
| 4-Ethyltoluene                   | 590            | 580      | 1000   | 1000   | 920    | 730    | U      | U      |
| Acetone                          | 750            | 680      | 49     | U      | U      | 230    | 71     | U      |
| Benzene                          | 410            | 400      | 420    | 310    | 720    | 670    | 47     | 190    |
| Carbon tetrachloride             | U              | U        | U      | U      | U      | U      | U      | U      |
| Chlorobenzene                    | 410            | 410      | 170    | 210    | 190    | 250    | U      | 310    |
| Chloroethane                     | 120            | 110      | 290    | 160    | 160    | 97     | 95     | 260    |
| Chloroform                       | U              | U        | U      | U      | U      | U      | U      | U      |
| Cyclohexane                      | 1100           | 1100     | 470    | 430    | 720    | 980    | 360    | 950    |
| Ethylbenzene                     | 4400           | 4400     | 1500   | 6500   | 7500   | 4200   | U      | U      |
| Freon 11                         | 74             | 74       | U      | U      | 120    | U      | U      | 100    |
| Freon 12                         | 400            | 410      | 110    | 120    | 660    | 430    | 1000   | 1500   |
| Freon 113                        | U              | U        | 80     | U      | 87     | 44     | U      | U      |
| Freon 114                        | 270            | 260      | 60     | 140    | 130    | 95     | 180    | 600    |
| Heptane                          | 4200           | 4200     | 1100   | 2300   | 2300   | 2900   | U      | U      |
| Hexane                           | 9400           | 9400     | 1400   | 1100   | 1600   | 1900   | 460    | 2600   |
| Methylene chloride               | 59             | 53       | U      | U      | U      | 76     | 8.8    | 490    |
| Styrene                          | 140            | 130      | U      | U      | U      | 240    | U      | U      |
| Tetrachloroethene                | 57             | 56       | U      | U      | U      | 92     | 84     | 1200   |
| Tetrahydrofuran                  | 930            | 920      | 640    | 720    | 1500   | 1500   | 370    | U      |
| Toluene                          | 3400           | 3300     | 78     | 550    | 4000   | 13,000 | U      | 9.2    |
| Trichloroethene                  | 69             | 62       | U      | U      | U      | 78     | 350    | 1400   |
| Vinyl chloride                   | 120            | 110      | 47     | 220    | 550    | 3200   | 320    | 610    |
| m,p-Xylene                       | 10,000         | 10,000   | 1600   | 8000   | 5900   | 9600   | U      | 22     |
| o-Xylene                         | 1300           | 1300     | 390    | 2400   | 1700   | 2900   | U      | 40     |

<sup>a</sup> U = not detected

continued

**Table 1.** Summary of Volatile Organic Compound Laboratory Analysis Results (continued).

Bush Valley Landfill, Harford County, MD  
November 2003

| Sample Number                    | 15739  | 15740  | 15741          | 15742             | 15743  | 15744     | 15745  | 15746  |
|----------------------------------|--------|--------|----------------|-------------------|--------|-----------|--------|--------|
| Sample Location                  | TMP1   | TMP2   | TMP3           | TMP4              | TMP5   | TMP5 Dup. | TMP6   | TMP8   |
| Substance                        | (ppbv) | (ppbv) | (ppbv)         | (ppbv)            | (ppbv) | (ppbv)    | (ppbv) | (ppbv) |
| 1,1-Dichloroethane               | 470    | 24     | 7.5            | 360               | 110    | 150       | 290    | 530    |
| 1,1-Dichloroethene               | 32     | 2.4    | U <sup>a</sup> | 44                | 12     | 15        | 28     | 35     |
| 1,2-Dichlorobenzene              | U      | 21     | 1.3            | 7.8               | U      | U         | U      | U      |
| 1,2-Dichloroethane               | 270    | 5.2    | 7.6            | 100               | 25     | U         | U      | 280    |
| cis-1,2-Dichloroethene           | 300    | 20     | 59             | 720               | 260    | 350       | 750    | 310    |
| trans-1,2-Dichloroethene         | 150    | 9.3    | 5.4            | 130               | 48     | 61        | 120    | 150    |
| 1,2-Dichloropropane              | U      | 2.3    | 3.3            | 73                | 32     | 42        | 71     | 45     |
| 1,4-Dichlorobenzene              | 25     | 16     | 12             | 90                | 35     | 68        | 58     | 27     |
| 1,1,1-Trichloroethane            | U      | 7.5    | U              | 51                | U      | U         | U      | U      |
| 1,2,4-Trimethylbenzene           | U      | 2.2    | 1.8            | 12                | U      | U         | U      | 22     |
| 1,3,5-Trimethylbenzene           | U      | 1.1    | 1.6            | 15                | U      | U         | U      | 11     |
| 2-Butanone (Methyl Ethyl Ketone) | U      | U      | U              | 90                | U      | 16        | 470    | 950    |
| 2-Propanol                       | U      | U      | U              | U                 | U      | U         | U      | U      |
| 4-Ethyltoluene                   | U      | U      | U              | U                 | U      | U         | U      | U      |
| Acetone                          | U      | 63     | 51             | U                 | 200    | 180       | 81     | 78     |
| Benzene                          | 220    | 23     | 38             | 600               | 220    | 310       | 450    | 400    |
| Carbon tetrachloride             | U      | U      | U              | U                 | U      | U         | U      | U      |
| Chlorobenzene                    | 150    | 16     | 12             | 230               | 80     | 110       | 180    | 130    |
| Chloroethane                     | 180    | 14     | 10             | 490               | 140    | 110       | U      | 150    |
| Chloroform                       | U      | U      | U              | U                 | U      | U         | U      | U      |
| Cyclohexane                      | 590    | 69     | 33             | 1700              | 530    | 730       | 1500   | 430    |
| Ethylbenzene                     | 19     | 1.5    | 5.6            | 18                | U      | U         | 21     | 31     |
| Freon 11                         | 79     | 5.4    | U              | 130               | 19     | 9.4       | 34     | 34     |
| Freon 12                         | 1600   | 76     | 43             | 2200              | 480    | 870       | 1600   | 1700   |
| Freon 113                        | U      | U      | U              | U                 | U      | U         | U      | U      |
| Freon 114                        | 490    | 12     | 4.9            | 680               | 270    | 400       | 940    | 580    |
| Heptane                          | U      | 82     | 78             | 3800 <sup>b</sup> | 260    | 350       | 1900   | U      |
| Hexane                           | 1500   | 130    | 55             | 3700 <sup>b</sup> | 1000   | 1300      | 2500   | 870    |
| Methylene chloride               | 1300   | 23     | 5.0            | 180               | 48     | 63        | 98     | 2200   |
| Styrene                          | U      | U      | U              | U                 | U      | U         | U      | U      |
| Tetrachloroethene                | 1100   | 42     | 24             | 720               | 310    | 440       | 920    | 1300   |
| Tetrahydrofuran                  | U      | U      | U              | U                 | U      | U         | U      | U      |
| Toluene                          | 31     | 2.5    | 15             | 79                | 10     | 15        | 53     | 120    |
| Trichloroethene                  | 1000   | 58     | 29             | 720               | 260    | 380       | 750    | 1000   |
| Vinyl chloride                   | 530    | 18     | 22             | 480               | 320    | 300       | 660    | 430    |
| m,p-Xylene                       | 83     | 9.1    | 18             | 110               | U      | 5.0       | 93     | 300    |
| o-Xylene                         | 43     | 4.8    | 4.7            | 98                | 27     | 37        | 15     | 130    |

<sup>a</sup> U = not detected

<sup>b</sup> Estimated because the concentration exceeded the calibration range

continued

**Table 1.** Summary of Volatile Organic Compound Laboratory Analysis Results (continued).

Bush Valley Landfill, Harford County, MD  
November 2003

| Sample Number                    | 15747  | 15748          | 15749           | 15750           | 15751           | 15752           | 15753                | 15754           |
|----------------------------------|--------|----------------|-----------------|-----------------|-----------------|-----------------|----------------------|-----------------|
| Sample Location                  | GMP8   | GMP9           | GVW1<br>Ambient | GVW2<br>Ambient | GVW3<br>Ambient | GVW4<br>Ambient | GVW4<br>Ambient Dup. | GVW5<br>Ambient |
| Substance                        | (ppbv) | (ppbv)         | (ppbv)          | (ppbv)          | (ppbv)          | (ppbv)          | (ppbv)               | (ppbv)          |
| 1,1-Dichloroethane               | 33     | U <sup>a</sup> | U               | U               | U               | U               | U                    | U               |
| 1,1-Dichloroethene               | U      | U              | U               | U               | U               | U               | U                    | U               |
| 1,2-Dichlorobenzene              | U      | U              | U               | U               | U               | U               | U                    | U               |
| 1,2-Dichloroethane               | 49     | U              | U               | U               | U               | U               | U                    | U               |
| cis-1,2-Dichloroethene           | 380    | 26             | U               | U               | U               | U               | U                    | U               |
| trans-1,2-Dichloroethene         | U      | U              | U               | U               | U               | U               | U                    | U               |
| 1,2-Dichloropropane              | U      | U              | U               | U               | U               | U               | U                    | U               |
| 1,4-Dichlorobenzene              | 17     | U              | U               | U               | U               | U               | U                    | U               |
| 1,1,1-Trichloroethane            | U      | U              | U               | U               | U               | U               | U                    | U               |
| 1,2,4-Trimethylbenzene           | U      | U              | U               | U               | U               | U               | U                    | U               |
| 1,3,5-Trimethylbenzene           | U      | U              | U               | U               | U               | U               | U                    | 11              |
| 2-Butanone (Methyl Ethyl Ketone) | U      | 5600           | U               | 19              | U               | 4.3             | U                    | U               |
| 2-Propanol                       | U      | U              | U               | U               | U               | U               | U                    | U               |
| 4-Ethyltoluene                   | U      | U              | U               | U               | U               | U               | U                    | U               |
| Acetone                          | U      | 110            | 150             | 160             | 170             | 100             | 48                   | 45              |
| Benzene                          | 68     | U              | U               | U               | U               | U               | U                    | U               |
| Carbon tetrachloride             | U      | U              | U               | U               | U               | U               | U                    | U               |
| Chlorobenzene                    | U      | U              | U               | U               | U               | U               | U                    | U               |
| Chloroethane                     | 190    | 26             | 10              | U               | U               | U               | U                    | U               |
| Chloroform                       | U      | U              | U               | U               | U               | U               | U                    | U               |
| Cyclohexane                      | 210    | U              | U               | U               | U               | U               | U                    | U               |
| Ethylbenzene                     | U      | U              | U               | U               | U               | U               | U                    | U               |
| Freon 11                         | U      | U              | U               | U               | U               | U               | U                    | U               |
| Freon 12                         | 3400   | 250            | U               | U               | U               | U               | U                    | U               |
| Freon 113                        | U      | U              | U               | U               | U               | U               | U                    | U               |
| Freon 114                        | 520    | 340            | U               | U               | U               | U               | U                    | U               |
| Heptane                          | 130    | U              | U               | U               | U               | U               | U                    | U               |
| Hexane                           | 990    | U              | U               | U               | U               | U               | U                    | U               |
| Methylene chloride               | U      | U              | 3.1             | 2.2             | 1.6             | 1.1             | 1.2                  | U               |
| Styrene                          | U      | U              | U               | U               | U               | U               | U                    | U               |
| Tetrachloroethene                | U      | U              | U               | U               | U               | U               | U                    | U               |
| Tetrahydrofuran                  | 1100   | 4300           | U               | 13              | U               | U               | U                    | U               |
| Toluene                          | 23     | U              | U               | 5.6             | U               | U               | U                    | U               |
| Trichloroethene                  | 100    | 30             | U               | U               | U               | U               | U                    | U               |
| Vinyl chloride                   | 1100   | 72             | U               | U               | U               | U               | U                    | U               |
| m,p-Xylene                       | U      | U              | U               | U               | U               | U               | U                    | U               |
| o-Xylene                         | U      | U              | U               | U               | U               | U               | U                    | U               |

<sup>a</sup> U = not detected

continued

**Table 1.** Summary of Volatile Organic Compound Laboratory Analysis Results (concluded).

Bush Valley Landfill, Harford County, MD  
November 2003

| Sample Number                    | 15755  | 15756     | 15757  | 15758  | 15759  | 15760  | 15761  | 15762          |
|----------------------------------|--------|-----------|--------|--------|--------|--------|--------|----------------|
| Sample Location                  | GMP6   | GMP6 Dup. | GMP5   | GMP4   | GMP3   | GMP2   | GMP1   | Trip Blank     |
| Substance                        | (ppbv) | (ppbv)    | (ppbv) | (ppbv) | (ppbv) | (ppbv) | (ppbv) | (ppbv)         |
| 1,1-Dichloroethane               | 170    | 170       | 250    | 310    | 270    | 860    | 8.4    | U <sup>a</sup> |
| 1,1-Dichloroethene               | 16     | 15        | 23     | U      | 12     | 27     | U      | U              |
| 1,2-Dichlorobenzene              | U      | U         | U      | U      | U      | U      | U      | U              |
| 1,2-Dichloroethane               | U      | U         | U      | U      | U      | U      | U      | U              |
| cis-1,2-Dichloroethene           | 170    | 170       | 520    | 1200   | 730    | 2200   | U      | U              |
| trans-1,2-Dichloroethene         | 39     | 37        | 80     | 150    | 140    | 180    | U      | U              |
| 1,2-Dichloropropane              | 12     | 11        | 44     | 150    | 110    | 450    | 14     | U              |
| 1,4-Dichlorobenzene              | 6.3    | 5.8       | 96     | 64     | 170    | 200    | 58     | U              |
| 1,1,1-Trichloroethane            | U      | U         | 78     | U      | U      | 93     | U      | U              |
| 1,2,4-Trimethylbenzene           | U      | U         | U      | 52     | U      | 50     | U      | U              |
| 1,3,5-Trimethylbenzene           | U      | U         | U      | 57     | U      | 48     | U      | 11             |
| 2-Butanone (Methyl Ethyl Ketone) | 1500   | 1400      | 130    | 530    | U      | 890    | 580    | U              |
| 2-Propanol                       | U      | U         | U      | U      | U      | U      | U      | U              |
| 4-Ethyltoluene                   | U      | U         | U      | U      | U      | U      | U      | U              |
| Acetone                          | 620    | 170       | U      | U      | U      | U      | U      | 9.4            |
| Benzene                          | 19     | 21        | 410    | 940    | 950    | 2500   | 57     | U              |
| Carbon tetrachloride             | U      | U         | U      | U      | U      | U      | U      | U              |
| Chlorobenzene                    | U      | U         | 120    | 180    | 310    | U      | 51     | U              |
| Chloroethane                     | U      | 44        | 230    | 280    | 600    | 430    | 18     | U              |
| Chloroform                       | U      | U         | U      | U      | U      | U      | U      | U              |
| Cyclohexane                      | 210    | 210       | 820    | 2900   | 2100   | 2100   | 130    | U              |
| Ethylbenzene                     | U      | U         | 21     | 560    | U      | 67     | U      | U              |
| Freon 11                         | U      | U         | 100    | U      | U      | 230    | U      | U              |
| Freon 12                         | 750    | 770       | 2800   | 2100   | 1400   | 2000   | 120    | U              |
| Freon 113                        | U      | U         | U      | U      | U      | U      | U      | U              |
| Freon 114                        | 240    | 250       | 280    | 580    | 1100   | 860    | 54     | U              |
| Heptane                          | U      | U         | 1800   | 6700   | 2600   | 5100   | 62     | U              |
| Hexane                           | 470    | 450       | 1700   | 3300   | 3800   | 3300   | 160    | U              |
| Methylene chloride               | 220    | 210       | 78     | U      | 130    | 200    | U      | U              |
| Styrene                          | U      | U         | U      | U      | U      | U      | 3.9    | U              |
| Tetrachloroethene                | 740    | 710       | 460    | 800    | 680    | 310    | U      | U              |
| Tetrahydrofuran                  | 500    | 480       | U      | U      | 130    | U      | 150    | U              |
| Toluene                          | U      | U         | 30     | 130    | U      | 180    | U      | U              |
| Trichloroethene                  | 420    | 420       | 520    | 840    | 670    | 270    | U      | U              |
| Vinyl chloride                   | 150    | 140       | 350    | 930    | 880    | 1400   | 5.6    | U              |
| m,p-Xylene                       | U      | U         | 29     | 480    | U      | 450    | U      | U              |
| o-Xylene                         | U      | U         | 33     | 66     | U      | 180    | U      | U              |

<sup>a</sup> U = not detected

**Table 2.** Summary of Fixed Gas and NMOC Laboratory Analysis Results.

Bush Valley Landfill, Harford County, MD  
November 2003

| Sample Number                         | 15731 | 15732     | 15733 | 15734 | 15735 | 15736 | 15737 | 15738 |
|---------------------------------------|-------|-----------|-------|-------|-------|-------|-------|-------|
| Sample Location                       | GVW1  | GVW1 Dup. | GVW2  | GVW3  | GVW4  | GVW5  | GMP7  | TMP7  |
| <b>Substance</b>                      |       |           |       |       |       |       |       |       |
| Oxygen (%)                            | 0.42  | 0.30      | 0.46  | 0.24  | 0.30  | 0.37  | 1.0   | 0.24  |
| Nitrogen (%)                          | 1.2   | 0.88      | 1.5   | 0.70  | 0.88  | 1.0   | 34    | 1.7   |
| Methane (%)                           | 63    | 64        | 64    | 62    | 64    | 62    | 36    | 64    |
| Carbon Dioxide (%)                    | 36    | 37        | 36    | 36    | 37    | 40    | 27    | 37    |
| NMOC <sup>a</sup> (ppmC) <sup>b</sup> | 2100  | 2200      | 1500  | 2000  | 2200  | 2200  | 860   | 1600  |

| Sample Number      | 15739 | 15740          | 15741 | 15742 | 15743 | 15744     | 15745 | 15746 |
|--------------------|-------|----------------|-------|-------|-------|-----------|-------|-------|
| Sample Location    | TMP1  | TMP2           | TMP3  | TMP4  | TMP5  | TMP5 Dup. | TMP6  | TMP8  |
| <b>Substance</b>   |       |                |       |       |       |           |       |       |
| Oxygen (%)         | 3.6   | 22             | 22    | 0.27  | 14    | 13        | 0.19  | 0.47  |
| Nitrogen (%)       | 12    | 72             | 74    | 1.2   | 44    | 41        | 0.72  | 7.9   |
| Methane (%)        | 54    | 4.2            | 2.4   | 64    | 27    | 29        | 64    | 60    |
| Carbon Dioxide (%) | 31    | 2.2            | 1.5   | 39    | 16    | 17        | 36    | 33    |
| NMOC (ppmC)        | 1400  | U <sup>c</sup> | U     | 1800  | 710   | 780       | 1700  | 1300  |

| Sample Number      | 15747 | 15748 | 15749           | 15750           | 15751           | 15752           | 15753                | 15754           |
|--------------------|-------|-------|-----------------|-----------------|-----------------|-----------------|----------------------|-----------------|
| Sample Location    | GMP8  | GMP9  | GVW1<br>Ambient | GVW2<br>Ambient | GVW3<br>Ambient | GVW4<br>Ambient | GVW4 Dup.<br>Ambient | GVW5<br>Ambient |
| <b>Substance</b>   |       |       |                 |                 |                 |                 |                      |                 |
| Oxygen (%)         | 0.21  | 1.5   | 23              | 23              | 23              | 23              | 23                   | 23              |
| Nitrogen (%)       | 1.7   | 49    | 75              | 77              | 77              | 76              | 75                   | 76              |
| Methane (%)        | 68    | 34    | U               | U               | U               | U               | U                    | U               |
| Carbon Dioxide (%) | 32    | 15    | U               | U               | U               | U               | U                    | U               |
| NMOC (ppmC)        | 1400  | 690   | U               | U               | U               | U               | U                    | U               |

| Sample Number      | 15755 | 15756     | 15757 | 15758 | 15759 | 15760 | 15761 | 15762      |
|--------------------|-------|-----------|-------|-------|-------|-------|-------|------------|
| Sample Location    | GMP6  | GMP6 Dup. | GMP5  | GMP4  | GMP3  | GMP2  | GMP1  | Trip Blank |
| <b>Substance</b>   |       |           |       |       |       |       |       |            |
| Oxygen (%)         | 12    | 12        | 11    | 1.2   | 0.25  | U     | 9.6   | U          |
| Nitrogen (%)       | 50    | 50        | 37    | 8.4   | 0.80  | 0.55  | 53    | 0.25       |
| Methane (%)        | 22    | 22        | 33    | 57    | 63    | 62    | 17    | U          |
| Carbon Dioxide (%) | 14    | 15        | 21    | 38    | 38    | 38    | 19    | U          |
| NMOC (ppmC)        | 580   | 580       | 1000  | 1900  | 2000  | 1900  | 600   | U          |

<sup>a</sup> NMOC = nonmethane organic compounds (reported as methane)

<sup>b</sup> ppmvC = parts per million by volume carbon

<sup>c</sup> U = not detected

## Appendix D LandGEM Model Runs



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Table D-1. Emission Rate of Methane from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA1.PRM

```

=====
                        Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume

=====
                        Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974   Current Year : 2004   Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
          Current Year to Closure Year : 0.00 Mg/year

=====
                        Model Results
=====
Year      Refuse In Place (Mg)      Methane Emission Rate
                                (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      1.719E+02      2.577E+05
1976      6.063E+04      3.354E+02      5.028E+05
1977      9.094E+04      4.909E+02      7.359E+05
1978      1.213E+05      6.389E+02      9.577E+05
1979      1.516E+05      7.796E+02      1.169E+06
1980      1.819E+05      9.135E+02      1.369E+06
1981      2.122E+05      1.041E+03      1.560E+06
1982      2.425E+05      1.162E+03      1.742E+06
1983      2.728E+05      1.277E+03      1.914E+06
1984      3.031E+05      1.387E+03      2.079E+06
1985      3.031E+05      1.319E+03      1.977E+06
1986      3.031E+05      1.255E+03      1.881E+06
1987      3.031E+05      1.194E+03      1.789E+06
1988      3.031E+05      1.135E+03      1.702E+06
1989      3.031E+05      1.080E+03      1.619E+06
1990      3.031E+05      1.027E+03      1.540E+06
1991      3.031E+05      9.773E+02      1.465E+06
1992      3.031E+05      9.296E+02      1.393E+06
1993      3.031E+05      8.843E+02      1.325E+06
1994      3.031E+05      8.412E+02      1.261E+06
1995      3.031E+05      8.001E+02      1.199E+06
1996      3.031E+05      7.611E+02      1.141E+06
1997      3.031E+05      7.240E+02      1.085E+06
1998      3.031E+05      6.887E+02      1.032E+06
1999      3.031E+05      6.551E+02      9.819E+05
2000      3.031E+05      6.231E+02      9.340E+05
2001      3.031E+05      5.927E+02      8.885E+05
2002      3.031E+05      5.638E+02      8.451E+05
2003      3.031E+05      5.363E+02      8.039E+05
2004      3.031E+05      5.102E+02      7.647E+05
2005      3.031E+05      4.853E+02      7.274E+05
2006      3.031E+05      4.616E+02      6.919E+05
2007      3.031E+05      4.391E+02      6.582E+05
2008      3.031E+05      4.177E+02      6.261E+05
2009      3.031E+05      3.973E+02      5.956E+05
2010      3.031E+05      3.780E+02      5.665E+05
2011      3.031E+05      3.595E+02      5.389E+05
2012      3.031E+05      3.420E+02      5.126E+05
2013      3.031E+05      3.253E+02      4.876E+05
2014      3.031E+05      3.094E+02      4.638E+05
2015      3.031E+05      2.944E+02      4.412E+05
2016      3.031E+05      2.800E+02      4.197E+05
2017      3.031E+05      2.663E+02      3.992E+05
2018      3.031E+05      2.533E+02      3.797E+05
2019      3.031E+05      2.410E+02      3.612E+05
2020      3.031E+05      2.292E+02      3.436E+05

```

continued

Table D-1. Emission Rate of Methane from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2021 | 3.031E+05            | 2.181E+02 | 3.269E+05    |
| 2022 | 3.031E+05            | 2.074E+02 | 3.109E+05    |
| 2023 | 3.031E+05            | 1.973E+02 | 2.957E+05    |
| 2024 | 3.031E+05            | 1.877E+02 | 2.813E+05    |
| 2025 | 3.031E+05            | 1.785E+02 | 2.676E+05    |
| 2026 | 3.031E+05            | 1.698E+02 | 2.546E+05    |
| 2027 | 3.031E+05            | 1.615E+02 | 2.421E+05    |
| 2028 | 3.031E+05            | 1.537E+02 | 2.303E+05    |
| 2029 | 3.031E+05            | 1.462E+02 | 2.191E+05    |
| 2030 | 3.031E+05            | 1.390E+02 | 2.084E+05    |
| 2031 | 3.031E+05            | 1.323E+02 | 1.982E+05    |
| 2032 | 3.031E+05            | 1.258E+02 | 1.886E+05    |
| 2033 | 3.031E+05            | 1.197E+02 | 1.794E+05    |
| 2034 | 3.031E+05            | 1.138E+02 | 1.706E+05    |
| 2035 | 3.031E+05            | 1.083E+02 | 1.623E+05    |
| 2036 | 3.031E+05            | 1.030E+02 | 1.544E+05    |
| 2037 | 3.031E+05            | 9.798E+01 | 1.469E+05    |
| 2038 | 3.031E+05            | 9.320E+01 | 1.397E+05    |
| 2039 | 3.031E+05            | 8.866E+01 | 1.329E+05    |
| 2040 | 3.031E+05            | 8.433E+01 | 1.264E+05    |
| 2041 | 3.031E+05            | 8.022E+01 | 1.202E+05    |
| 2042 | 3.031E+05            | 7.631E+01 | 1.144E+05    |
| 2043 | 3.031E+05            | 7.259E+01 | 1.088E+05    |
| 2044 | 3.031E+05            | 6.905E+01 | 1.035E+05    |
| 2045 | 3.031E+05            | 6.568E+01 | 9.845E+04    |
| 2046 | 3.031E+05            | 6.248E+01 | 9.365E+04    |
| 2047 | 3.031E+05            | 5.943E+01 | 8.908E+04    |
| 2048 | 3.031E+05            | 5.653E+01 | 8.473E+04    |
| 2049 | 3.031E+05            | 5.377E+01 | 8.060E+04    |
| 2050 | 3.031E+05            | 5.115E+01 | 7.667E+04    |
| 2051 | 3.031E+05            | 4.866E+01 | 7.293E+04    |
| 2052 | 3.031E+05            | 4.628E+01 | 6.937E+04    |
| 2053 | 3.031E+05            | 4.403E+01 | 6.599E+04    |
| 2054 | 3.031E+05            | 4.188E+01 | 6.277E+04    |
| 2055 | 3.031E+05            | 3.984E+01 | 5.971E+04    |
| 2056 | 3.031E+05            | 3.789E+01 | 5.680E+04    |
| 2057 | 3.031E+05            | 3.605E+01 | 5.403E+04    |
| 2058 | 3.031E+05            | 3.429E+01 | 5.139E+04    |
| 2059 | 3.031E+05            | 3.261E+01 | 4.889E+04    |
| 2060 | 3.031E+05            | 3.102E+01 | 4.650E+04    |
| 2061 | 3.031E+05            | 2.951E+01 | 4.423E+04    |
| 2062 | 3.031E+05            | 2.807E+01 | 4.208E+04    |
| 2063 | 3.031E+05            | 2.670E+01 | 4.003E+04    |
| 2064 | 3.031E+05            | 2.540E+01 | 3.807E+04    |
| 2065 | 3.031E+05            | 2.416E+01 | 3.622E+04    |
| 2066 | 3.031E+05            | 2.298E+01 | 3.445E+04    |
| 2067 | 3.031E+05            | 2.186E+01 | 3.277E+04    |
| 2068 | 3.031E+05            | 2.080E+01 | 3.117E+04    |
| 2069 | 3.031E+05            | 1.978E+01 | 2.965E+04    |
| 2070 | 3.031E+05            | 1.882E+01 | 2.821E+04    |
| 2071 | 3.031E+05            | 1.790E+01 | 2.683E+04    |
| 2072 | 3.031E+05            | 1.703E+01 | 2.552E+04    |
| 2073 | 3.031E+05            | 1.620E+01 | 2.428E+04    |
| 2074 | 3.031E+05            | 1.541E+01 | 2.309E+04    |
| 2075 | 3.031E+05            | 1.465E+01 | 2.197E+04    |
| 2076 | 3.031E+05            | 1.394E+01 | 2.090E+04    |
| 2077 | 3.031E+05            | 1.326E+01 | 1.988E+04    |
| 2078 | 3.031E+05            | 1.261E+01 | 1.891E+04    |
| 2079 | 3.031E+05            | 1.200E+01 | 1.798E+04    |
| 2080 | 3.031E+05            | 1.141E+01 | 1.711E+04    |
| 2081 | 3.031E+05            | 1.086E+01 | 1.627E+04    |
| 2082 | 3.031E+05            | 1.033E+01 | 1.548E+04    |
| 2083 | 3.031E+05            | 9.823E+00 | 1.472E+04    |
| 2084 | 3.031E+05            | 9.344E+00 | 1.401E+04    |
| 2085 | 3.031E+05            | 8.889E+00 | 1.332E+04    |
| 2086 | 3.031E+05            | 8.455E+00 | 1.267E+04    |
| 2087 | 3.031E+05            | 8.043E+00 | 1.206E+04    |
| 2088 | 3.031E+05            | 7.650E+00 | 1.147E+04    |
| 2089 | 3.031E+05            | 7.277E+00 | 1.091E+04    |
| 2090 | 3.031E+05            | 6.922E+00 | 1.038E+04    |

continued

Table D-1. Emission Rate of Methane from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2091 | 3.031E+05            | 6.585E+00 | 9.870E+03    |
| 2092 | 3.031E+05            | 6.264E+00 | 9.389E+03    |
| 2093 | 3.031E+05            | 5.958E+00 | 8.931E+03    |
| 2094 | 3.031E+05            | 5.668E+00 | 8.495E+03    |
| 2095 | 3.031E+05            | 5.391E+00 | 8.081E+03    |
| 2096 | 3.031E+05            | 5.128E+00 | 7.687E+03    |
| 2097 | 3.031E+05            | 4.878E+00 | 7.312E+03    |
| 2098 | 3.031E+05            | 4.640E+00 | 6.955E+03    |
| 2099 | 3.031E+05            | 4.414E+00 | 6.616E+03    |
| 2100 | 3.031E+05            | 4.199E+00 | 6.293E+03    |
| 2101 | 3.031E+05            | 3.994E+00 | 5.987E+03    |
| 2102 | 3.031E+05            | 3.799E+00 | 5.695E+03    |
| 2103 | 3.031E+05            | 3.614E+00 | 5.417E+03    |
| 2104 | 3.031E+05            | 3.438E+00 | 5.153E+03    |
| 2105 | 3.031E+05            | 3.270E+00 | 4.901E+03    |
| 2106 | 3.031E+05            | 3.110E+00 | 4.662E+03    |
| 2107 | 3.031E+05            | 2.959E+00 | 4.435E+03    |
| 2108 | 3.031E+05            | 2.814E+00 | 4.219E+03    |
| 2109 | 3.031E+05            | 2.677E+00 | 4.013E+03    |
| 2110 | 3.031E+05            | 2.547E+00 | 3.817E+03    |
| 2111 | 3.031E+05            | 2.422E+00 | 3.631E+03    |
| 2112 | 3.031E+05            | 2.304E+00 | 3.454E+03    |
| 2113 | 3.031E+05            | 2.192E+00 | 3.285E+03    |
| 2114 | 3.031E+05            | 2.085E+00 | 3.125E+03    |
| 2115 | 3.031E+05            | 1.983E+00 | 2.973E+03    |
| 2116 | 3.031E+05            | 1.887E+00 | 2.828E+03    |
| 2117 | 3.031E+05            | 1.795E+00 | 2.690E+03    |
| 2118 | 3.031E+05            | 1.707E+00 | 2.559E+03    |
| 2119 | 3.031E+05            | 1.624E+00 | 2.434E+03    |
| 2120 | 3.031E+05            | 1.545E+00 | 2.315E+03    |
| 2121 | 3.031E+05            | 1.469E+00 | 2.202E+03    |
| 2122 | 3.031E+05            | 1.398E+00 | 2.095E+03    |
| 2123 | 3.031E+05            | 1.329E+00 | 1.993E+03    |
| 2124 | 3.031E+05            | 1.265E+00 | 1.896E+03    |
| 2125 | 3.031E+05            | 1.203E+00 | 1.803E+03    |
| 2126 | 3.031E+05            | 1.144E+00 | 1.715E+03    |
| 2127 | 3.031E+05            | 1.088E+00 | 1.632E+03    |
| 2128 | 3.031E+05            | 1.035E+00 | 1.552E+03    |
| 2129 | 3.031E+05            | 9.849E-01 | 1.476E+03    |
| 2130 | 3.031E+05            | 9.369E-01 | 1.404E+03    |
| 2131 | 3.031E+05            | 8.912E-01 | 1.336E+03    |
| 2132 | 3.031E+05            | 8.477E-01 | 1.271E+03    |
| 2133 | 3.031E+05            | 8.064E-01 | 1.209E+03    |
| 2134 | 3.031E+05            | 7.670E-01 | 1.150E+03    |
| 2135 | 3.031E+05            | 7.296E-01 | 1.094E+03    |
| 2136 | 3.031E+05            | 6.940E-01 | 1.040E+03    |
| 2137 | 3.031E+05            | 6.602E-01 | 9.896E+02    |
| 2138 | 3.031E+05            | 6.280E-01 | 9.413E+02    |
| 2139 | 3.031E+05            | 5.974E-01 | 8.954E+02    |
| 2140 | 3.031E+05            | 5.682E-01 | 8.517E+02    |
| 2141 | 3.031E+05            | 5.405E-01 | 8.102E+02    |
| 2142 | 3.031E+05            | 5.142E-01 | 7.707E+02    |
| 2143 | 3.031E+05            | 4.891E-01 | 7.331E+02    |
| 2144 | 3.031E+05            | 4.652E-01 | 6.973E+02    |
| 2145 | 3.031E+05            | 4.425E-01 | 6.633E+02    |
| 2146 | 3.031E+05            | 4.210E-01 | 6.310E+02    |
| 2147 | 3.031E+05            | 4.004E-01 | 6.002E+02    |
| 2148 | 3.031E+05            | 3.809E-01 | 5.709E+02    |
| 2149 | 3.031E+05            | 3.623E-01 | 5.431E+02    |
| 2150 | 3.031E+05            | 3.446E-01 | 5.166E+02    |
| 2151 | 3.031E+05            | 3.278E-01 | 4.914E+02    |
| 2152 | 3.031E+05            | 3.119E-01 | 4.674E+02    |
| 2153 | 3.031E+05            | 2.966E-01 | 4.446E+02    |
| 2154 | 3.031E+05            | 2.822E-01 | 4.230E+02    |
| 2155 | 3.031E+05            | 2.684E-01 | 4.023E+02    |
| 2156 | 3.031E+05            | 2.553E-01 | 3.827E+02    |
| 2157 | 3.031E+05            | 2.429E-01 | 3.640E+02    |
| 2158 | 3.031E+05            | 2.310E-01 | 3.463E+02    |
| 2159 | 3.031E+05            | 2.198E-01 | 3.294E+02    |
| 2160 | 3.031E+05            | 2.090E-01 | 3.133E+02    |

continued

Table D-1. Emission Rate of Methane from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2161 | 3.031E+05            | 1.988E-01 | 2.981E+02    |
| 2162 | 3.031E+05            | 1.891E-01 | 2.835E+02    |
| 2163 | 3.031E+05            | 1.799E-01 | 2.697E+02    |
| 2164 | 3.031E+05            | 1.711E-01 | 2.565E+02    |
| 2165 | 3.031E+05            | 1.628E-01 | 2.440E+02    |
| 2166 | 3.031E+05            | 1.549E-01 | 2.321E+02    |
| 2167 | 3.031E+05            | 1.473E-01 | 2.208E+02    |
| 2168 | 3.031E+05            | 1.401E-01 | 2.100E+02    |
| 2169 | 3.031E+05            | 1.333E-01 | 1.998E+02    |
| 2170 | 3.031E+05            | 1.268E-01 | 1.900E+02    |
| 2171 | 3.031E+05            | 1.206E-01 | 1.808E+02    |
| 2172 | 3.031E+05            | 1.147E-01 | 1.720E+02    |
| 2173 | 3.031E+05            | 1.091E-01 | 1.636E+02    |
| 2174 | 3.031E+05            | 1.038E-01 | 1.556E+02    |
| 2175 | 3.031E+05            | 9.874E-02 | 1.480E+02    |
| 2176 | 3.031E+05            | 9.393E-02 | 1.408E+02    |
| 2177 | 3.031E+05            | 8.935E-02 | 1.339E+02    |
| 2178 | 3.031E+05            | 8.499E-02 | 1.274E+02    |
| 2179 | 3.031E+05            | 8.084E-02 | 1.212E+02    |
| 2180 | 3.031E+05            | 7.690E-02 | 1.153E+02    |
| 2181 | 3.031E+05            | 7.315E-02 | 1.096E+02    |
| 2182 | 3.031E+05            | 6.958E-02 | 1.043E+02    |
| 2183 | 3.031E+05            | 6.619E-02 | 9.921E+01    |
| 2184 | 3.031E+05            | 6.296E-02 | 9.437E+01    |
| 2185 | 3.031E+05            | 5.989E-02 | 8.977E+01    |
| 2186 | 3.031E+05            | 5.697E-02 | 8.539E+01    |
| 2187 | 3.031E+05            | 5.419E-02 | 8.123E+01    |
| 2188 | 3.031E+05            | 5.155E-02 | 7.727E+01    |
| 2189 | 3.031E+05            | 4.903E-02 | 7.350E+01    |
| 2190 | 3.031E+05            | 4.664E-02 | 6.991E+01    |
| 2191 | 3.031E+05            | 4.437E-02 | 6.650E+01    |
| 2192 | 3.031E+05            | 4.220E-02 | 6.326E+01    |
| 2193 | 3.031E+05            | 4.015E-02 | 6.018E+01    |
| 2194 | 3.031E+05            | 3.819E-02 | 5.724E+01    |
| 2195 | 3.031E+05            | 3.633E-02 | 5.445E+01    |
| 2196 | 3.031E+05            | 3.455E-02 | 5.179E+01    |
| 2197 | 3.031E+05            | 3.287E-02 | 4.927E+01    |
| 2198 | 3.031E+05            | 3.127E-02 | 4.686E+01    |
| 2199 | 3.031E+05            | 2.974E-02 | 4.458E+01    |
| 2200 | 3.031E+05            | 2.829E-02 | 4.241E+01    |
| 2201 | 3.031E+05            | 2.691E-02 | 4.034E+01    |
| 2202 | 3.031E+05            | 2.560E-02 | 3.837E+01    |
| 2203 | 3.031E+05            | 2.435E-02 | 3.650E+01    |

Table D-2. Emission Rate of Carbon Dioxide from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA1.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume

=====
                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974   Current Year : 2004   Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
    Current Year to Closure Year : 0.00 Mg/year

=====
                          Model Results
=====
Year      Refuse In Place (Mg)      Carbon Dioxide Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      2.653E+02      1.449E+05
1976      6.063E+04      5.177E+02      2.828E+05
1977      9.094E+04      7.577E+02      4.139E+05
1978      1.213E+05      9.861E+02      5.387E+05
1979      1.516E+05      1.203E+03      6.573E+05
1980      1.819E+05      1.410E+03      7.702E+05
1981      2.122E+05      1.606E+03      8.776E+05
1982      2.425E+05      1.793E+03      9.797E+05
1983      2.728E+05      1.971E+03      1.077E+06
1984      3.031E+05      2.140E+03      1.169E+06
1985      3.031E+05      2.036E+03      1.112E+06
1986      3.031E+05      1.937E+03      1.058E+06
1987      3.031E+05      1.842E+03      1.006E+06
1988      3.031E+05      1.752E+03      9.573E+05
1989      3.031E+05      1.667E+03      9.106E+05
1990      3.031E+05      1.586E+03      8.662E+05
1991      3.031E+05      1.508E+03      8.240E+05
1992      3.031E+05      1.435E+03      7.838E+05
1993      3.031E+05      1.365E+03      7.456E+05
1994      3.031E+05      1.298E+03      7.092E+05
1995      3.031E+05      1.235E+03      6.746E+05
1996      3.031E+05      1.175E+03      6.417E+05
1997      3.031E+05      1.117E+03      6.104E+05
1998      3.031E+05      1.063E+03      5.807E+05
1999      3.031E+05      1.011E+03      5.523E+05
2000      3.031E+05      9.617E+02      5.254E+05
2001      3.031E+05      9.148E+02      4.998E+05
2002      3.031E+05      8.702E+02      4.754E+05
2003      3.031E+05      8.278E+02      4.522E+05
2004      3.031E+05      7.874E+02      4.302E+05
2005      3.031E+05      7.490E+02      4.092E+05
2006      3.031E+05      7.125E+02      3.892E+05
2007      3.031E+05      6.777E+02      3.702E+05
2008      3.031E+05      6.447E+02      3.522E+05
2009      3.031E+05      6.132E+02      3.350E+05
2010      3.031E+05      5.833E+02      3.187E+05
2011      3.031E+05      5.549E+02      3.031E+05
2012      3.031E+05      5.278E+02      2.883E+05
2013      3.031E+05      5.021E+02      2.743E+05
2014      3.031E+05      4.776E+02      2.609E+05
2015      3.031E+05      4.543E+02      2.482E+05
2016      3.031E+05      4.321E+02      2.361E+05
2017      3.031E+05      4.111E+02      2.246E+05
2018      3.031E+05      3.910E+02      2.136E+05
2019      3.031E+05      3.719E+02      2.032E+05
2020      3.031E+05      3.538E+02      1.933E+05

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continued

Table D-2. Emission Rate of Carbon Dioxide from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2021 | 3.031E+05            | 3.365E+02 | 1.839E+05    |
| 2022 | 3.031E+05            | 3.201E+02 | 1.749E+05    |
| 2023 | 3.031E+05            | 3.045E+02 | 1.664E+05    |
| 2024 | 3.031E+05            | 2.897E+02 | 1.582E+05    |
| 2025 | 3.031E+05            | 2.755E+02 | 1.505E+05    |
| 2026 | 3.031E+05            | 2.621E+02 | 1.432E+05    |
| 2027 | 3.031E+05            | 2.493E+02 | 1.362E+05    |
| 2028 | 3.031E+05            | 2.372E+02 | 1.296E+05    |
| 2029 | 3.031E+05            | 2.256E+02 | 1.232E+05    |
| 2030 | 3.031E+05            | 2.146E+02 | 1.172E+05    |
| 2031 | 3.031E+05            | 2.041E+02 | 1.115E+05    |
| 2032 | 3.031E+05            | 1.942E+02 | 1.061E+05    |
| 2033 | 3.031E+05            | 1.847E+02 | 1.009E+05    |
| 2034 | 3.031E+05            | 1.757E+02 | 9.598E+04    |
| 2035 | 3.031E+05            | 1.671E+02 | 9.130E+04    |
| 2036 | 3.031E+05            | 1.590E+02 | 8.685E+04    |
| 2037 | 3.031E+05            | 1.512E+02 | 8.261E+04    |
| 2038 | 3.031E+05            | 1.438E+02 | 7.858E+04    |
| 2039 | 3.031E+05            | 1.368E+02 | 7.475E+04    |
| 2040 | 3.031E+05            | 1.302E+02 | 7.110E+04    |
| 2041 | 3.031E+05            | 1.238E+02 | 6.764E+04    |
| 2042 | 3.031E+05            | 1.178E+02 | 6.434E+04    |
| 2043 | 3.031E+05            | 1.120E+02 | 6.120E+04    |
| 2044 | 3.031E+05            | 1.066E+02 | 5.822E+04    |
| 2045 | 3.031E+05            | 1.014E+02 | 5.538E+04    |
| 2046 | 3.031E+05            | 9.642E+01 | 5.268E+04    |
| 2047 | 3.031E+05            | 9.172E+01 | 5.011E+04    |
| 2048 | 3.031E+05            | 8.725E+01 | 4.766E+04    |
| 2049 | 3.031E+05            | 8.299E+01 | 4.534E+04    |
| 2050 | 3.031E+05            | 7.894E+01 | 4.313E+04    |
| 2051 | 3.031E+05            | 7.509E+01 | 4.102E+04    |
| 2052 | 3.031E+05            | 7.143E+01 | 3.902E+04    |
| 2053 | 3.031E+05            | 6.795E+01 | 3.712E+04    |
| 2054 | 3.031E+05            | 6.463E+01 | 3.531E+04    |
| 2055 | 3.031E+05            | 6.148E+01 | 3.359E+04    |
| 2056 | 3.031E+05            | 5.848E+01 | 3.195E+04    |
| 2057 | 3.031E+05            | 5.563E+01 | 3.039E+04    |
| 2058 | 3.031E+05            | 5.292E+01 | 2.891E+04    |
| 2059 | 3.031E+05            | 5.034E+01 | 2.750E+04    |
| 2060 | 3.031E+05            | 4.788E+01 | 2.616E+04    |
| 2061 | 3.031E+05            | 4.555E+01 | 2.488E+04    |
| 2062 | 3.031E+05            | 4.333E+01 | 2.367E+04    |
| 2063 | 3.031E+05            | 4.121E+01 | 2.251E+04    |
| 2064 | 3.031E+05            | 3.920E+01 | 2.142E+04    |
| 2065 | 3.031E+05            | 3.729E+01 | 2.037E+04    |
| 2066 | 3.031E+05            | 3.547E+01 | 1.938E+04    |
| 2067 | 3.031E+05            | 3.374E+01 | 1.843E+04    |
| 2068 | 3.031E+05            | 3.210E+01 | 1.753E+04    |
| 2069 | 3.031E+05            | 3.053E+01 | 1.668E+04    |
| 2070 | 3.031E+05            | 2.904E+01 | 1.587E+04    |
| 2071 | 3.031E+05            | 2.763E+01 | 1.509E+04    |
| 2072 | 3.031E+05            | 2.628E+01 | 1.436E+04    |
| 2073 | 3.031E+05            | 2.500E+01 | 1.366E+04    |
| 2074 | 3.031E+05            | 2.378E+01 | 1.299E+04    |
| 2075 | 3.031E+05            | 2.262E+01 | 1.236E+04    |
| 2076 | 3.031E+05            | 2.151E+01 | 1.175E+04    |
| 2077 | 3.031E+05            | 2.047E+01 | 1.118E+04    |
| 2078 | 3.031E+05            | 1.947E+01 | 1.063E+04    |
| 2079 | 3.031E+05            | 1.852E+01 | 1.012E+04    |
| 2080 | 3.031E+05            | 1.761E+01 | 9.623E+03    |
| 2081 | 3.031E+05            | 1.676E+01 | 9.154E+03    |
| 2082 | 3.031E+05            | 1.594E+01 | 8.707E+03    |
| 2083 | 3.031E+05            | 1.516E+01 | 8.283E+03    |
| 2084 | 3.031E+05            | 1.442E+01 | 7.879E+03    |
| 2085 | 3.031E+05            | 1.372E+01 | 7.494E+03    |
| 2086 | 3.031E+05            | 1.305E+01 | 7.129E+03    |
| 2087 | 3.031E+05            | 1.241E+01 | 6.781E+03    |
| 2088 | 3.031E+05            | 1.181E+01 | 6.450E+03    |
| 2089 | 3.031E+05            | 1.123E+01 | 6.136E+03    |
| 2090 | 3.031E+05            | 1.068E+01 | 5.837E+03    |

continued



Table D-2. Emission Rate of Carbon Dioxide from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2091 | 3.031E+05            | 1.016E+01 | 5.552E+03    |
| 2092 | 3.031E+05            | 9.667E+00 | 5.281E+03    |
| 2093 | 3.031E+05            | 9.196E+00 | 5.024E+03    |
| 2094 | 3.031E+05            | 8.747E+00 | 4.779E+03    |
| 2095 | 3.031E+05            | 8.321E+00 | 4.546E+03    |
| 2096 | 3.031E+05            | 7.915E+00 | 4.324E+03    |
| 2097 | 3.031E+05            | 7.529E+00 | 4.113E+03    |
| 2098 | 3.031E+05            | 7.162E+00 | 3.912E+03    |
| 2099 | 3.031E+05            | 6.812E+00 | 3.722E+03    |
| 2100 | 3.031E+05            | 6.480E+00 | 3.540E+03    |
| 2101 | 3.031E+05            | 6.164E+00 | 3.367E+03    |
| 2102 | 3.031E+05            | 5.863E+00 | 3.203E+03    |
| 2103 | 3.031E+05            | 5.577E+00 | 3.047E+03    |
| 2104 | 3.031E+05            | 5.305E+00 | 2.898E+03    |
| 2105 | 3.031E+05            | 5.047E+00 | 2.757E+03    |
| 2106 | 3.031E+05            | 4.801E+00 | 2.623E+03    |
| 2107 | 3.031E+05            | 4.566E+00 | 2.495E+03    |
| 2108 | 3.031E+05            | 4.344E+00 | 2.373E+03    |
| 2109 | 3.031E+05            | 4.132E+00 | 2.257E+03    |
| 2110 | 3.031E+05            | 3.930E+00 | 2.147E+03    |
| 2111 | 3.031E+05            | 3.739E+00 | 2.042E+03    |
| 2112 | 3.031E+05            | 3.556E+00 | 1.943E+03    |
| 2113 | 3.031E+05            | 3.383E+00 | 1.848E+03    |
| 2114 | 3.031E+05            | 3.218E+00 | 1.758E+03    |
| 2115 | 3.031E+05            | 3.061E+00 | 1.672E+03    |
| 2116 | 3.031E+05            | 2.912E+00 | 1.591E+03    |
| 2117 | 3.031E+05            | 2.770E+00 | 1.513E+03    |
| 2118 | 3.031E+05            | 2.635E+00 | 1.439E+03    |
| 2119 | 3.031E+05            | 2.506E+00 | 1.369E+03    |
| 2120 | 3.031E+05            | 2.384E+00 | 1.302E+03    |
| 2121 | 3.031E+05            | 2.268E+00 | 1.239E+03    |
| 2122 | 3.031E+05            | 2.157E+00 | 1.178E+03    |
| 2123 | 3.031E+05            | 2.052E+00 | 1.121E+03    |
| 2124 | 3.031E+05            | 1.952E+00 | 1.066E+03    |
| 2125 | 3.031E+05            | 1.857E+00 | 1.014E+03    |
| 2126 | 3.031E+05            | 1.766E+00 | 9.648E+02    |
| 2127 | 3.031E+05            | 1.680E+00 | 9.177E+02    |
| 2128 | 3.031E+05            | 1.598E+00 | 8.730E+02    |
| 2129 | 3.031E+05            | 1.520E+00 | 8.304E+02    |
| 2130 | 3.031E+05            | 1.446E+00 | 7.899E+02    |
| 2131 | 3.031E+05            | 1.375E+00 | 7.514E+02    |
| 2132 | 3.031E+05            | 1.308E+00 | 7.147E+02    |
| 2133 | 3.031E+05            | 1.245E+00 | 6.799E+02    |
| 2134 | 3.031E+05            | 1.184E+00 | 6.467E+02    |
| 2135 | 3.031E+05            | 1.126E+00 | 6.152E+02    |
| 2136 | 3.031E+05            | 1.071E+00 | 5.852E+02    |
| 2137 | 3.031E+05            | 1.019E+00 | 5.566E+02    |
| 2138 | 3.031E+05            | 9.692E-01 | 5.295E+02    |
| 2139 | 3.031E+05            | 9.220E-01 | 5.037E+02    |
| 2140 | 3.031E+05            | 8.770E-01 | 4.791E+02    |
| 2141 | 3.031E+05            | 8.342E-01 | 4.557E+02    |
| 2142 | 3.031E+05            | 7.935E-01 | 4.335E+02    |
| 2143 | 3.031E+05            | 7.548E-01 | 4.124E+02    |
| 2144 | 3.031E+05            | 7.180E-01 | 3.923E+02    |
| 2145 | 3.031E+05            | 6.830E-01 | 3.731E+02    |
| 2146 | 3.031E+05            | 6.497E-01 | 3.549E+02    |
| 2147 | 3.031E+05            | 6.180E-01 | 3.376E+02    |
| 2148 | 3.031E+05            | 5.879E-01 | 3.211E+02    |
| 2149 | 3.031E+05            | 5.592E-01 | 3.055E+02    |
| 2150 | 3.031E+05            | 5.319E-01 | 2.906E+02    |
| 2151 | 3.031E+05            | 5.060E-01 | 2.764E+02    |
| 2152 | 3.031E+05            | 4.813E-01 | 2.629E+02    |
| 2153 | 3.031E+05            | 4.578E-01 | 2.501E+02    |
| 2154 | 3.031E+05            | 4.355E-01 | 2.379E+02    |
| 2155 | 3.031E+05            | 4.143E-01 | 2.263E+02    |
| 2156 | 3.031E+05            | 3.941E-01 | 2.153E+02    |
| 2157 | 3.031E+05            | 3.748E-01 | 2.048E+02    |
| 2158 | 3.031E+05            | 3.566E-01 | 1.948E+02    |
| 2159 | 3.031E+05            | 3.392E-01 | 1.853E+02    |
| 2160 | 3.031E+05            | 3.226E-01 | 1.763E+02    |

continued

Table D-2. Emission Rate of Carbon Dioxide from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2161 | 3.031E+05            | 3.069E-01 | 1.677E+02    |
| 2162 | 3.031E+05            | 2.919E-01 | 1.595E+02    |
| 2163 | 3.031E+05            | 2.777E-01 | 1.517E+02    |
| 2164 | 3.031E+05            | 2.641E-01 | 1.443E+02    |
| 2165 | 3.031E+05            | 2.513E-01 | 1.373E+02    |
| 2166 | 3.031E+05            | 2.390E-01 | 1.306E+02    |
| 2167 | 3.031E+05            | 2.274E-01 | 1.242E+02    |
| 2168 | 3.031E+05            | 2.163E-01 | 1.181E+02    |
| 2169 | 3.031E+05            | 2.057E-01 | 1.124E+02    |
| 2170 | 3.031E+05            | 1.957E-01 | 1.069E+02    |
| 2171 | 3.031E+05            | 1.861E-01 | 1.017E+02    |
| 2172 | 3.031E+05            | 1.771E-01 | 9.673E+01    |
| 2173 | 3.031E+05            | 1.684E-01 | 9.201E+01    |
| 2174 | 3.031E+05            | 1.602E-01 | 8.752E+01    |
| 2175 | 3.031E+05            | 1.524E-01 | 8.325E+01    |
| 2176 | 3.031E+05            | 1.450E-01 | 7.919E+01    |
| 2177 | 3.031E+05            | 1.379E-01 | 7.533E+01    |
| 2178 | 3.031E+05            | 1.312E-01 | 7.166E+01    |
| 2179 | 3.031E+05            | 1.248E-01 | 6.816E+01    |
| 2180 | 3.031E+05            | 1.187E-01 | 6.484E+01    |
| 2181 | 3.031E+05            | 1.129E-01 | 6.168E+01    |
| 2182 | 3.031E+05            | 1.074E-01 | 5.867E+01    |
| 2183 | 3.031E+05            | 1.022E-01 | 5.581E+01    |
| 2184 | 3.031E+05            | 9.717E-02 | 5.309E+01    |
| 2185 | 3.031E+05            | 9.243E-02 | 5.050E+01    |
| 2186 | 3.031E+05            | 8.793E-02 | 4.803E+01    |
| 2187 | 3.031E+05            | 8.364E-02 | 4.569E+01    |
| 2188 | 3.031E+05            | 7.956E-02 | 4.346E+01    |
| 2189 | 3.031E+05            | 7.568E-02 | 4.134E+01    |
| 2190 | 3.031E+05            | 7.199E-02 | 3.933E+01    |
| 2191 | 3.031E+05            | 6.848E-02 | 3.741E+01    |
| 2192 | 3.031E+05            | 6.514E-02 | 3.558E+01    |
| 2193 | 3.031E+05            | 6.196E-02 | 3.385E+01    |
| 2194 | 3.031E+05            | 5.894E-02 | 3.220E+01    |
| 2195 | 3.031E+05            | 5.606E-02 | 3.063E+01    |
| 2196 | 3.031E+05            | 5.333E-02 | 2.913E+01    |
| 2197 | 3.031E+05            | 5.073E-02 | 2.771E+01    |
| 2198 | 3.031E+05            | 4.825E-02 | 2.636E+01    |
| 2199 | 3.031E+05            | 4.590E-02 | 2.508E+01    |
| 2200 | 3.031E+05            | 4.366E-02 | 2.385E+01    |
| 2201 | 3.031E+05            | 4.153E-02 | 2.269E+01    |
| 2202 | 3.031E+05            | 3.951E-02 | 2.158E+01    |
| 2203 | 3.031E+05            | 3.758E-02 | 2.053E+01    |

Table D-3. Emission Rate of NMOCs from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA1.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974   Current Year : 2004   Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      NMOC Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      3.175E+00      8.857E+02
1976      6.063E+04      6.195E+00      1.728E+03
1977      9.094E+04      9.067E+00      2.530E+03
1978      1.213E+05      1.180E+01      3.292E+03
1979      1.516E+05      1.440E+01      4.017E+03
1980      1.819E+05      1.687E+01      4.707E+03
1981      2.122E+05      1.922E+01      5.363E+03
1982      2.425E+05      2.146E+01      5.987E+03
1983      2.728E+05      2.359E+01      6.581E+03
1984      3.031E+05      2.561E+01      7.146E+03
1985      3.031E+05      2.436E+01      6.797E+03
1986      3.031E+05      2.318E+01      6.466E+03
1987      3.031E+05      2.205E+01      6.150E+03
1988      3.031E+05      2.097E+01      5.850E+03
1989      3.031E+05      1.995E+01      5.565E+03
1990      3.031E+05      1.897E+01      5.294E+03
1991      3.031E+05      1.805E+01      5.035E+03
1992      3.031E+05      1.717E+01      4.790E+03
1993      3.031E+05      1.633E+01      4.556E+03
1994      3.031E+05      1.554E+01      4.334E+03
1995      3.031E+05      1.478E+01      4.123E+03
1996      3.031E+05      1.406E+01      3.922E+03
1997      3.031E+05      1.337E+01      3.730E+03
1998      3.031E+05      1.272E+01      3.548E+03
1999      3.031E+05      1.210E+01      3.375E+03
2000      3.031E+05      1.151E+01      3.211E+03
2001      3.031E+05      1.095E+01      3.054E+03
2002      3.031E+05      1.041E+01      2.905E+03
2003      3.031E+05      9.906E+00      2.764E+03
2004      3.031E+05      9.423E+00      2.629E+03
2005      3.031E+05      8.963E+00      2.501E+03
2006      3.031E+05      8.526E+00      2.379E+03
2007      3.031E+05      8.110E+00      2.263E+03
2008      3.031E+05      7.715E+00      2.152E+03
2009      3.031E+05      7.338E+00      2.047E+03
2010      3.031E+05      6.980E+00      1.947E+03
2011      3.031E+05      6.640E+00      1.852E+03
2012      3.031E+05      6.316E+00      1.762E+03
2013      3.031E+05      6.008E+00      1.676E+03
2014      3.031E+05      5.715E+00      1.594E+03
2015      3.031E+05      5.436E+00      1.517E+03
2016      3.031E+05      5.171E+00      1.443E+03
2017      3.031E+05      4.919E+00      1.372E+03
2018      3.031E+05      4.679E+00      1.305E+03
2019      3.031E+05      4.451E+00      1.242E+03
2020      3.031E+05      4.234E+00      1.181E+03
=====

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continued

Table D-3. Emission Rate of NMOCs from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2021 | 3.031E+05            | 4.027E+00 | 1.124E+03    |
| 2022 | 3.031E+05            | 3.831E+00 | 1.069E+03    |
| 2023 | 3.031E+05            | 3.644E+00 | 1.017E+03    |
| 2024 | 3.031E+05            | 3.466E+00 | 9.671E+02    |
| 2025 | 3.031E+05            | 3.297E+00 | 9.199E+02    |
| 2026 | 3.031E+05            | 3.137E+00 | 8.750E+02    |
| 2027 | 3.031E+05            | 2.984E+00 | 8.324E+02    |
| 2028 | 3.031E+05            | 2.838E+00 | 7.918E+02    |
| 2029 | 3.031E+05            | 2.700E+00 | 7.531E+02    |
| 2030 | 3.031E+05            | 2.568E+00 | 7.164E+02    |
| 2031 | 3.031E+05            | 2.443E+00 | 6.815E+02    |
| 2032 | 3.031E+05            | 2.324E+00 | 6.482E+02    |
| 2033 | 3.031E+05            | 2.210E+00 | 6.166E+02    |
| 2034 | 3.031E+05            | 2.102E+00 | 5.865E+02    |
| 2035 | 3.031E+05            | 2.000E+00 | 5.579E+02    |
| 2036 | 3.031E+05            | 1.902E+00 | 5.307E+02    |
| 2037 | 3.031E+05            | 1.810E+00 | 5.048E+02    |
| 2038 | 3.031E+05            | 1.721E+00 | 4.802E+02    |
| 2039 | 3.031E+05            | 1.637E+00 | 4.568E+02    |
| 2040 | 3.031E+05            | 1.558E+00 | 4.345E+02    |
| 2041 | 3.031E+05            | 1.482E+00 | 4.133E+02    |
| 2042 | 3.031E+05            | 1.409E+00 | 3.932E+02    |
| 2043 | 3.031E+05            | 1.341E+00 | 3.740E+02    |
| 2044 | 3.031E+05            | 1.275E+00 | 3.558E+02    |
| 2045 | 3.031E+05            | 1.213E+00 | 3.384E+02    |
| 2046 | 3.031E+05            | 1.154E+00 | 3.219E+02    |
| 2047 | 3.031E+05            | 1.098E+00 | 3.062E+02    |
| 2048 | 3.031E+05            | 1.044E+00 | 2.913E+02    |
| 2049 | 3.031E+05            | 9.931E-01 | 2.771E+02    |
| 2050 | 3.031E+05            | 9.447E-01 | 2.636E+02    |
| 2051 | 3.031E+05            | 8.986E-01 | 2.507E+02    |
| 2052 | 3.031E+05            | 8.548E-01 | 2.385E+02    |
| 2053 | 3.031E+05            | 8.131E-01 | 2.268E+02    |
| 2054 | 3.031E+05            | 7.735E-01 | 2.158E+02    |
| 2055 | 3.031E+05            | 7.357E-01 | 2.053E+02    |
| 2056 | 3.031E+05            | 6.999E-01 | 1.952E+02    |
| 2057 | 3.031E+05            | 6.657E-01 | 1.857E+02    |
| 2058 | 3.031E+05            | 6.333E-01 | 1.767E+02    |
| 2059 | 3.031E+05            | 6.024E-01 | 1.680E+02    |
| 2060 | 3.031E+05            | 5.730E-01 | 1.599E+02    |
| 2061 | 3.031E+05            | 5.450E-01 | 1.521E+02    |
| 2062 | 3.031E+05            | 5.185E-01 | 1.446E+02    |
| 2063 | 3.031E+05            | 4.932E-01 | 1.376E+02    |
| 2064 | 3.031E+05            | 4.691E-01 | 1.309E+02    |
| 2065 | 3.031E+05            | 4.462E-01 | 1.245E+02    |
| 2066 | 3.031E+05            | 4.245E-01 | 1.184E+02    |
| 2067 | 3.031E+05            | 4.038E-01 | 1.126E+02    |
| 2068 | 3.031E+05            | 3.841E-01 | 1.072E+02    |
| 2069 | 3.031E+05            | 3.654E-01 | 1.019E+02    |
| 2070 | 3.031E+05            | 3.475E-01 | 9.696E+01    |
| 2071 | 3.031E+05            | 3.306E-01 | 9.223E+01    |
| 2072 | 3.031E+05            | 3.145E-01 | 8.773E+01    |
| 2073 | 3.031E+05            | 2.991E-01 | 8.345E+01    |
| 2074 | 3.031E+05            | 2.845E-01 | 7.938E+01    |
| 2075 | 3.031E+05            | 2.707E-01 | 7.551E+01    |
| 2076 | 3.031E+05            | 2.575E-01 | 7.183E+01    |
| 2077 | 3.031E+05            | 2.449E-01 | 6.832E+01    |
| 2078 | 3.031E+05            | 2.330E-01 | 6.499E+01    |
| 2079 | 3.031E+05            | 2.216E-01 | 6.182E+01    |
| 2080 | 3.031E+05            | 2.108E-01 | 5.881E+01    |
| 2081 | 3.031E+05            | 2.005E-01 | 5.594E+01    |
| 2082 | 3.031E+05            | 1.907E-01 | 5.321E+01    |
| 2083 | 3.031E+05            | 1.814E-01 | 5.062E+01    |
| 2084 | 3.031E+05            | 1.726E-01 | 4.815E+01    |
| 2085 | 3.031E+05            | 1.642E-01 | 4.580E+01    |
| 2086 | 3.031E+05            | 1.562E-01 | 4.357E+01    |
| 2087 | 3.031E+05            | 1.485E-01 | 4.144E+01    |
| 2088 | 3.031E+05            | 1.413E-01 | 3.942E+01    |
| 2089 | 3.031E+05            | 1.344E-01 | 3.750E+01    |
| 2090 | 3.031E+05            | 1.279E-01 | 3.567E+01    |

continued

Table D-3. Emission Rate of NMOCs from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2091 | 3.031E+05            | 1.216E-01 | 3.393E+01    |
| 2092 | 3.031E+05            | 1.157E-01 | 3.227E+01    |
| 2093 | 3.031E+05            | 1.100E-01 | 3.070E+01    |
| 2094 | 3.031E+05            | 1.047E-01 | 2.920E+01    |
| 2095 | 3.031E+05            | 9.957E-02 | 2.778E+01    |
| 2096 | 3.031E+05            | 9.471E-02 | 2.642E+01    |
| 2097 | 3.031E+05            | 9.010E-02 | 2.513E+01    |
| 2098 | 3.031E+05            | 8.570E-02 | 2.391E+01    |
| 2099 | 3.031E+05            | 8.152E-02 | 2.274E+01    |
| 2100 | 3.031E+05            | 7.755E-02 | 2.163E+01    |
| 2101 | 3.031E+05            | 7.376E-02 | 2.058E+01    |
| 2102 | 3.031E+05            | 7.017E-02 | 1.958E+01    |
| 2103 | 3.031E+05            | 6.674E-02 | 1.862E+01    |
| 2104 | 3.031E+05            | 6.349E-02 | 1.771E+01    |
| 2105 | 3.031E+05            | 6.039E-02 | 1.685E+01    |
| 2106 | 3.031E+05            | 5.745E-02 | 1.603E+01    |
| 2107 | 3.031E+05            | 5.465E-02 | 1.525E+01    |
| 2108 | 3.031E+05            | 5.198E-02 | 1.450E+01    |
| 2109 | 3.031E+05            | 4.945E-02 | 1.379E+01    |
| 2110 | 3.031E+05            | 4.703E-02 | 1.312E+01    |
| 2111 | 3.031E+05            | 4.474E-02 | 1.248E+01    |
| 2112 | 3.031E+05            | 4.256E-02 | 1.187E+01    |
| 2113 | 3.031E+05            | 4.048E-02 | 1.129E+01    |
| 2114 | 3.031E+05            | 3.851E-02 | 1.074E+01    |
| 2115 | 3.031E+05            | 3.663E-02 | 1.022E+01    |
| 2116 | 3.031E+05            | 3.484E-02 | 9.721E+00    |
| 2117 | 3.031E+05            | 3.314E-02 | 9.247E+00    |
| 2118 | 3.031E+05            | 3.153E-02 | 8.796E+00    |
| 2119 | 3.031E+05            | 2.999E-02 | 8.367E+00    |
| 2120 | 3.031E+05            | 2.853E-02 | 7.959E+00    |
| 2121 | 3.031E+05            | 2.714E-02 | 7.570E+00    |
| 2122 | 3.031E+05            | 2.581E-02 | 7.201E+00    |
| 2123 | 3.031E+05            | 2.455E-02 | 6.850E+00    |
| 2124 | 3.031E+05            | 2.336E-02 | 6.516E+00    |
| 2125 | 3.031E+05            | 2.222E-02 | 6.198E+00    |
| 2126 | 3.031E+05            | 2.113E-02 | 5.896E+00    |
| 2127 | 3.031E+05            | 2.010E-02 | 5.608E+00    |
| 2128 | 3.031E+05            | 1.912E-02 | 5.335E+00    |
| 2129 | 3.031E+05            | 1.819E-02 | 5.075E+00    |
| 2130 | 3.031E+05            | 1.730E-02 | 4.827E+00    |
| 2131 | 3.031E+05            | 1.646E-02 | 4.592E+00    |
| 2132 | 3.031E+05            | 1.566E-02 | 4.368E+00    |
| 2133 | 3.031E+05            | 1.489E-02 | 4.155E+00    |
| 2134 | 3.031E+05            | 1.417E-02 | 3.952E+00    |
| 2135 | 3.031E+05            | 1.348E-02 | 3.759E+00    |
| 2136 | 3.031E+05            | 1.282E-02 | 3.576E+00    |
| 2137 | 3.031E+05            | 1.219E-02 | 3.402E+00    |
| 2138 | 3.031E+05            | 1.160E-02 | 3.236E+00    |
| 2139 | 3.031E+05            | 1.103E-02 | 3.078E+00    |
| 2140 | 3.031E+05            | 1.049E-02 | 2.928E+00    |
| 2141 | 3.031E+05            | 9.983E-03 | 2.785E+00    |
| 2142 | 3.031E+05            | 9.496E-03 | 2.649E+00    |
| 2143 | 3.031E+05            | 9.033E-03 | 2.520E+00    |
| 2144 | 3.031E+05            | 8.592E-03 | 2.397E+00    |
| 2145 | 3.031E+05            | 8.173E-03 | 2.280E+00    |
| 2146 | 3.031E+05            | 7.775E-03 | 2.169E+00    |
| 2147 | 3.031E+05            | 7.395E-03 | 2.063E+00    |
| 2148 | 3.031E+05            | 7.035E-03 | 1.963E+00    |
| 2149 | 3.031E+05            | 6.692E-03 | 1.867E+00    |
| 2150 | 3.031E+05            | 6.365E-03 | 1.776E+00    |
| 2151 | 3.031E+05            | 6.055E-03 | 1.689E+00    |
| 2152 | 3.031E+05            | 5.760E-03 | 1.607E+00    |
| 2153 | 3.031E+05            | 5.479E-03 | 1.528E+00    |
| 2154 | 3.031E+05            | 5.211E-03 | 1.454E+00    |
| 2155 | 3.031E+05            | 4.957E-03 | 1.383E+00    |
| 2156 | 3.031E+05            | 4.716E-03 | 1.316E+00    |
| 2157 | 3.031E+05            | 4.486E-03 | 1.251E+00    |
| 2158 | 3.031E+05            | 4.267E-03 | 1.190E+00    |
| 2159 | 3.031E+05            | 4.059E-03 | 1.132E+00    |
| 2160 | 3.031E+05            | 3.861E-03 | 1.077E+00    |

continued

Table D-3. Emission Rate of NMOCs from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2161 | 3.031E+05            | 3.672E-03 | 1.025E+00    |
| 2162 | 3.031E+05            | 3.493E-03 | 9.746E-01    |
| 2163 | 3.031E+05            | 3.323E-03 | 9.271E-01    |
| 2164 | 3.031E+05            | 3.161E-03 | 8.818E-01    |
| 2165 | 3.031E+05            | 3.007E-03 | 8.388E-01    |
| 2166 | 3.031E+05            | 2.860E-03 | 7.979E-01    |
| 2167 | 3.031E+05            | 2.721E-03 | 7.590E-01    |
| 2168 | 3.031E+05            | 2.588E-03 | 7.220E-01    |
| 2169 | 3.031E+05            | 2.462E-03 | 6.868E-01    |
| 2170 | 3.031E+05            | 2.342E-03 | 6.533E-01    |
| 2171 | 3.031E+05            | 2.227E-03 | 6.214E-01    |
| 2172 | 3.031E+05            | 2.119E-03 | 5.911E-01    |
| 2173 | 3.031E+05            | 2.015E-03 | 5.623E-01    |
| 2174 | 3.031E+05            | 1.917E-03 | 5.349E-01    |
| 2175 | 3.031E+05            | 1.824E-03 | 5.088E-01    |
| 2176 | 3.031E+05            | 1.735E-03 | 4.840E-01    |
| 2177 | 3.031E+05            | 1.650E-03 | 4.604E-01    |
| 2178 | 3.031E+05            | 1.570E-03 | 4.379E-01    |
| 2179 | 3.031E+05            | 1.493E-03 | 4.166E-01    |
| 2180 | 3.031E+05            | 1.420E-03 | 3.962E-01    |
| 2181 | 3.031E+05            | 1.351E-03 | 3.769E-01    |
| 2182 | 3.031E+05            | 1.285E-03 | 3.585E-01    |
| 2183 | 3.031E+05            | 1.222E-03 | 3.410E-01    |
| 2184 | 3.031E+05            | 1.163E-03 | 3.244E-01    |
| 2185 | 3.031E+05            | 1.106E-03 | 3.086E-01    |
| 2186 | 3.031E+05            | 1.052E-03 | 2.935E-01    |
| 2187 | 3.031E+05            | 1.001E-03 | 2.792E-01    |
| 2188 | 3.031E+05            | 9.521E-04 | 2.656E-01    |
| 2189 | 3.031E+05            | 9.056E-04 | 2.527E-01    |
| 2190 | 3.031E+05            | 8.615E-04 | 2.403E-01    |
| 2191 | 3.031E+05            | 8.194E-04 | 2.286E-01    |
| 2192 | 3.031E+05            | 7.795E-04 | 2.175E-01    |
| 2193 | 3.031E+05            | 7.415E-04 | 2.069E-01    |
| 2194 | 3.031E+05            | 7.053E-04 | 1.968E-01    |
| 2195 | 3.031E+05            | 6.709E-04 | 1.872E-01    |
| 2196 | 3.031E+05            | 6.382E-04 | 1.780E-01    |
| 2197 | 3.031E+05            | 6.071E-04 | 1.694E-01    |
| 2198 | 3.031E+05            | 5.775E-04 | 1.611E-01    |
| 2199 | 3.031E+05            | 5.493E-04 | 1.532E-01    |
| 2200 | 3.031E+05            | 5.225E-04 | 1.458E-01    |
| 2201 | 3.031E+05            | 4.970E-04 | 1.387E-01    |
| 2202 | 3.031E+05            | 4.728E-04 | 1.319E-01    |
| 2203 | 3.031E+05            | 4.497E-04 | 1.255E-01    |

Table D-4. Emission Rate of 1,1,1-Trichloroethane from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA1.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : 1,1,1-Trichloroethane (HAP)
Molecular Wt = 133.41      Concentration =      0.090000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      1,1,1-Trichloroethane (HAP) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      2.011E-04      3.623E-02
1976      6.063E+04      3.923E-04      7.070E-02
1977      9.094E+04      5.742E-04      1.035E-01
1978      1.213E+05      7.473E-04      1.347E-01
1979      1.516E+05      9.119E-04      1.643E-01
1980      1.819E+05      1.068E-03      1.926E-01
1981      2.122E+05      1.217E-03      2.194E-01
1982      2.425E+05      1.359E-03      2.449E-01
1983      2.728E+05      1.494E-03      2.692E-01
1984      3.031E+05      1.622E-03      2.923E-01
1985      3.031E+05      1.543E-03      2.781E-01
1986      3.031E+05      1.468E-03      2.645E-01
1987      3.031E+05      1.396E-03      2.516E-01
1988      3.031E+05      1.328E-03      2.393E-01
1989      3.031E+05      1.263E-03      2.277E-01
1990      3.031E+05      1.202E-03      2.166E-01
1991      3.031E+05      1.143E-03      2.060E-01
1992      3.031E+05      1.087E-03      1.959E-01
1993      3.031E+05      1.034E-03      1.864E-01
1994      3.031E+05      9.838E-04      1.773E-01
1995      3.031E+05      9.358E-04      1.687E-01
1996      3.031E+05      8.902E-04      1.604E-01
1997      3.031E+05      8.468E-04      1.526E-01
1998      3.031E+05      8.055E-04      1.452E-01
1999      3.031E+05      7.662E-04      1.381E-01
2000      3.031E+05      7.288E-04      1.313E-01
2001      3.031E+05      6.933E-04      1.249E-01
2002      3.031E+05      6.595E-04      1.188E-01
2003      3.031E+05      6.273E-04      1.131E-01
2004      3.031E+05      5.967E-04      1.075E-01
2005      3.031E+05      5.676E-04      1.023E-01
2006      3.031E+05      5.399E-04      9.731E-02
2007      3.031E+05      5.136E-04      9.256E-02
2008      3.031E+05      4.886E-04      8.805E-02
2009      3.031E+05      4.647E-04      8.375E-02
2010      3.031E+05      4.421E-04      7.967E-02
2011      3.031E+05      4.205E-04      7.578E-02
2012      3.031E+05      4.000E-04      7.209E-02
2013      3.031E+05      3.805E-04      6.857E-02
2014      3.031E+05      3.619E-04      6.523E-02
2015      3.031E+05      3.443E-04      6.204E-02
2016      3.031E+05      3.275E-04      5.902E-02
2017      3.031E+05      3.115E-04      5.614E-02
2018      3.031E+05      2.963E-04      5.340E-02
=====

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continued

Table D-4. Emission Rate of 1,1,1-Trichloroethane from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 2.819E-04 | 5.080E-02    |
| 2020 | 3.031E+05            | 2.681E-04 | 4.832E-02    |
| 2021 | 3.031E+05            | 2.550E-04 | 4.596E-02    |
| 2022 | 3.031E+05            | 2.426E-04 | 4.372E-02    |
| 2023 | 3.031E+05            | 2.308E-04 | 4.159E-02    |
| 2024 | 3.031E+05            | 2.195E-04 | 3.956E-02    |
| 2025 | 3.031E+05            | 2.088E-04 | 3.763E-02    |
| 2026 | 3.031E+05            | 1.986E-04 | 3.580E-02    |
| 2027 | 3.031E+05            | 1.889E-04 | 3.405E-02    |
| 2028 | 3.031E+05            | 1.797E-04 | 3.239E-02    |
| 2029 | 3.031E+05            | 1.710E-04 | 3.081E-02    |
| 2030 | 3.031E+05            | 1.626E-04 | 2.931E-02    |
| 2031 | 3.031E+05            | 1.547E-04 | 2.788E-02    |
| 2032 | 3.031E+05            | 1.472E-04 | 2.652E-02    |
| 2033 | 3.031E+05            | 1.400E-04 | 2.523E-02    |
| 2034 | 3.031E+05            | 1.331E-04 | 2.400E-02    |
| 2035 | 3.031E+05            | 1.267E-04 | 2.282E-02    |
| 2036 | 3.031E+05            | 1.205E-04 | 2.171E-02    |
| 2037 | 3.031E+05            | 1.146E-04 | 2.065E-02    |
| 2038 | 3.031E+05            | 1.090E-04 | 1.965E-02    |
| 2039 | 3.031E+05            | 1.037E-04 | 1.869E-02    |
| 2040 | 3.031E+05            | 9.864E-05 | 1.778E-02    |
| 2041 | 3.031E+05            | 9.383E-05 | 1.691E-02    |
| 2042 | 3.031E+05            | 8.925E-05 | 1.608E-02    |
| 2043 | 3.031E+05            | 8.490E-05 | 1.530E-02    |
| 2044 | 3.031E+05            | 8.076E-05 | 1.455E-02    |
| 2045 | 3.031E+05            | 7.682E-05 | 1.384E-02    |
| 2046 | 3.031E+05            | 7.307E-05 | 1.317E-02    |
| 2047 | 3.031E+05            | 6.951E-05 | 1.253E-02    |
| 2048 | 3.031E+05            | 6.612E-05 | 1.192E-02    |
| 2049 | 3.031E+05            | 6.289E-05 | 1.133E-02    |
| 2050 | 3.031E+05            | 5.983E-05 | 1.078E-02    |
| 2051 | 3.031E+05            | 5.691E-05 | 1.026E-02    |
| 2052 | 3.031E+05            | 5.413E-05 | 9.756E-03    |
| 2053 | 3.031E+05            | 5.149E-05 | 9.280E-03    |
| 2054 | 3.031E+05            | 4.898E-05 | 8.827E-03    |
| 2055 | 3.031E+05            | 4.659E-05 | 8.397E-03    |
| 2056 | 3.031E+05            | 4.432E-05 | 7.987E-03    |
| 2057 | 3.031E+05            | 4.216E-05 | 7.598E-03    |
| 2058 | 3.031E+05            | 4.010E-05 | 7.227E-03    |
| 2059 | 3.031E+05            | 3.815E-05 | 6.875E-03    |
| 2060 | 3.031E+05            | 3.629E-05 | 6.539E-03    |
| 2061 | 3.031E+05            | 3.452E-05 | 6.221E-03    |
| 2062 | 3.031E+05            | 3.283E-05 | 5.917E-03    |
| 2063 | 3.031E+05            | 3.123E-05 | 5.629E-03    |
| 2064 | 3.031E+05            | 2.971E-05 | 5.354E-03    |
| 2065 | 3.031E+05            | 2.826E-05 | 5.093E-03    |
| 2066 | 3.031E+05            | 2.688E-05 | 4.845E-03    |
| 2067 | 3.031E+05            | 2.557E-05 | 4.608E-03    |
| 2068 | 3.031E+05            | 2.432E-05 | 4.384E-03    |
| 2069 | 3.031E+05            | 2.314E-05 | 4.170E-03    |
| 2070 | 3.031E+05            | 2.201E-05 | 3.966E-03    |
| 2071 | 3.031E+05            | 2.094E-05 | 3.773E-03    |
| 2072 | 3.031E+05            | 1.991E-05 | 3.589E-03    |
| 2073 | 3.031E+05            | 1.894E-05 | 3.414E-03    |
| 2074 | 3.031E+05            | 1.802E-05 | 3.247E-03    |
| 2075 | 3.031E+05            | 1.714E-05 | 3.089E-03    |
| 2076 | 3.031E+05            | 1.630E-05 | 2.938E-03    |
| 2077 | 3.031E+05            | 1.551E-05 | 2.795E-03    |
| 2078 | 3.031E+05            | 1.475E-05 | 2.659E-03    |
| 2079 | 3.031E+05            | 1.403E-05 | 2.529E-03    |
| 2080 | 3.031E+05            | 1.335E-05 | 2.406E-03    |
| 2081 | 3.031E+05            | 1.270E-05 | 2.288E-03    |
| 2082 | 3.031E+05            | 1.208E-05 | 2.177E-03    |
| 2083 | 3.031E+05            | 1.149E-05 | 2.071E-03    |
| 2084 | 3.031E+05            | 1.093E-05 | 1.970E-03    |
| 2085 | 3.031E+05            | 1.040E-05 | 1.874E-03    |
| 2086 | 3.031E+05            | 9.889E-06 | 1.782E-03    |
| 2087 | 3.031E+05            | 9.407E-06 | 1.695E-03    |
| 2088 | 3.031E+05            | 8.948E-06 | 1.613E-03    |

continued



Table D-4. Emission Rate of 1,1,1-Trichloroethane from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 8.512E-06 | 1.534E-03    |
| 2090 | 3.031E+05            | 8.097E-06 | 1.459E-03    |
| 2091 | 3.031E+05            | 7.702E-06 | 1.388E-03    |
| 2092 | 3.031E+05            | 7.326E-06 | 1.320E-03    |
| 2093 | 3.031E+05            | 6.969E-06 | 1.256E-03    |
| 2094 | 3.031E+05            | 6.629E-06 | 1.195E-03    |
| 2095 | 3.031E+05            | 6.306E-06 | 1.136E-03    |
| 2096 | 3.031E+05            | 5.998E-06 | 1.081E-03    |
| 2097 | 3.031E+05            | 5.706E-06 | 1.028E-03    |
| 2098 | 3.031E+05            | 5.427E-06 | 9.781E-04    |
| 2099 | 3.031E+05            | 5.163E-06 | 9.304E-04    |
| 2100 | 3.031E+05            | 4.911E-06 | 8.850E-04    |
| 2101 | 3.031E+05            | 4.671E-06 | 8.419E-04    |
| 2102 | 3.031E+05            | 4.444E-06 | 8.008E-04    |
| 2103 | 3.031E+05            | 4.227E-06 | 7.617E-04    |
| 2104 | 3.031E+05            | 4.021E-06 | 7.246E-04    |
| 2105 | 3.031E+05            | 3.825E-06 | 6.893E-04    |
| 2106 | 3.031E+05            | 3.638E-06 | 6.556E-04    |
| 2107 | 3.031E+05            | 3.461E-06 | 6.237E-04    |
| 2108 | 3.031E+05            | 3.292E-06 | 5.932E-04    |
| 2109 | 3.031E+05            | 3.131E-06 | 5.643E-04    |
| 2110 | 3.031E+05            | 2.979E-06 | 5.368E-04    |
| 2111 | 3.031E+05            | 2.833E-06 | 5.106E-04    |
| 2112 | 3.031E+05            | 2.695E-06 | 4.857E-04    |
| 2113 | 3.031E+05            | 2.564E-06 | 4.620E-04    |
| 2114 | 3.031E+05            | 2.439E-06 | 4.395E-04    |
| 2115 | 3.031E+05            | 2.320E-06 | 4.181E-04    |
| 2116 | 3.031E+05            | 2.207E-06 | 3.977E-04    |
| 2117 | 3.031E+05            | 2.099E-06 | 3.783E-04    |
| 2118 | 3.031E+05            | 1.997E-06 | 3.598E-04    |
| 2119 | 3.031E+05            | 1.899E-06 | 3.423E-04    |
| 2120 | 3.031E+05            | 1.807E-06 | 3.256E-04    |
| 2121 | 3.031E+05            | 1.719E-06 | 3.097E-04    |
| 2122 | 3.031E+05            | 1.635E-06 | 2.946E-04    |
| 2123 | 3.031E+05            | 1.555E-06 | 2.802E-04    |
| 2124 | 3.031E+05            | 1.479E-06 | 2.666E-04    |
| 2125 | 3.031E+05            | 1.407E-06 | 2.536E-04    |
| 2126 | 3.031E+05            | 1.338E-06 | 2.412E-04    |
| 2127 | 3.031E+05            | 1.273E-06 | 2.294E-04    |
| 2128 | 3.031E+05            | 1.211E-06 | 2.182E-04    |
| 2129 | 3.031E+05            | 1.152E-06 | 2.076E-04    |
| 2130 | 3.031E+05            | 1.096E-06 | 1.975E-04    |
| 2131 | 3.031E+05            | 1.042E-06 | 1.878E-04    |
| 2132 | 3.031E+05            | 9.915E-07 | 1.787E-04    |
| 2133 | 3.031E+05            | 9.431E-07 | 1.700E-04    |
| 2134 | 3.031E+05            | 8.971E-07 | 1.617E-04    |
| 2135 | 3.031E+05            | 8.534E-07 | 1.538E-04    |
| 2136 | 3.031E+05            | 8.118E-07 | 1.463E-04    |
| 2137 | 3.031E+05            | 7.722E-07 | 1.392E-04    |
| 2138 | 3.031E+05            | 7.345E-07 | 1.324E-04    |
| 2139 | 3.031E+05            | 6.987E-07 | 1.259E-04    |
| 2140 | 3.031E+05            | 6.646E-07 | 1.198E-04    |
| 2141 | 3.031E+05            | 6.322E-07 | 1.139E-04    |
| 2142 | 3.031E+05            | 6.014E-07 | 1.084E-04    |
| 2143 | 3.031E+05            | 5.720E-07 | 1.031E-04    |
| 2144 | 3.031E+05            | 5.441E-07 | 9.806E-05    |
| 2145 | 3.031E+05            | 5.176E-07 | 9.328E-05    |
| 2146 | 3.031E+05            | 4.924E-07 | 8.873E-05    |
| 2147 | 3.031E+05            | 4.683E-07 | 8.440E-05    |
| 2148 | 3.031E+05            | 4.455E-07 | 8.029E-05    |
| 2149 | 3.031E+05            | 4.238E-07 | 7.637E-05    |
| 2150 | 3.031E+05            | 4.031E-07 | 7.265E-05    |
| 2151 | 3.031E+05            | 3.834E-07 | 6.910E-05    |
| 2152 | 3.031E+05            | 3.647E-07 | 6.573E-05    |
| 2153 | 3.031E+05            | 3.470E-07 | 6.253E-05    |
| 2154 | 3.031E+05            | 3.300E-07 | 5.948E-05    |
| 2155 | 3.031E+05            | 3.139E-07 | 5.658E-05    |
| 2156 | 3.031E+05            | 2.986E-07 | 5.382E-05    |
| 2157 | 3.031E+05            | 2.841E-07 | 5.119E-05    |
| 2158 | 3.031E+05            | 2.702E-07 | 4.870E-05    |

continued

Table D-4. Emission Rate of 1,1,1-Trichloroethane from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 2.570E-07 | 4.632E-05    |
| 2160 | 3.031E+05            | 2.445E-07 | 4.406E-05    |
| 2161 | 3.031E+05            | 2.326E-07 | 4.191E-05    |
| 2162 | 3.031E+05            | 2.212E-07 | 3.987E-05    |
| 2163 | 3.031E+05            | 2.104E-07 | 3.792E-05    |
| 2164 | 3.031E+05            | 2.002E-07 | 3.608E-05    |
| 2165 | 3.031E+05            | 1.904E-07 | 3.432E-05    |
| 2166 | 3.031E+05            | 1.811E-07 | 3.264E-05    |
| 2167 | 3.031E+05            | 1.723E-07 | 3.105E-05    |
| 2168 | 3.031E+05            | 1.639E-07 | 2.954E-05    |
| 2169 | 3.031E+05            | 1.559E-07 | 2.810E-05    |
| 2170 | 3.031E+05            | 1.483E-07 | 2.673E-05    |
| 2171 | 3.031E+05            | 1.411E-07 | 2.542E-05    |
| 2172 | 3.031E+05            | 1.342E-07 | 2.418E-05    |
| 2173 | 3.031E+05            | 1.276E-07 | 2.300E-05    |
| 2174 | 3.031E+05            | 1.214E-07 | 2.188E-05    |
| 2175 | 3.031E+05            | 1.155E-07 | 2.081E-05    |
| 2176 | 3.031E+05            | 1.099E-07 | 1.980E-05    |
| 2177 | 3.031E+05            | 1.045E-07 | 1.883E-05    |
| 2178 | 3.031E+05            | 9.941E-08 | 1.791E-05    |
| 2179 | 3.031E+05            | 9.456E-08 | 1.704E-05    |
| 2180 | 3.031E+05            | 8.995E-08 | 1.621E-05    |
| 2181 | 3.031E+05            | 8.556E-08 | 1.542E-05    |
| 2182 | 3.031E+05            | 8.139E-08 | 1.467E-05    |
| 2183 | 3.031E+05            | 7.742E-08 | 1.395E-05    |
| 2184 | 3.031E+05            | 7.364E-08 | 1.327E-05    |
| 2185 | 3.031E+05            | 7.005E-08 | 1.262E-05    |
| 2186 | 3.031E+05            | 6.663E-08 | 1.201E-05    |
| 2187 | 3.031E+05            | 6.338E-08 | 1.142E-05    |
| 2188 | 3.031E+05            | 6.029E-08 | 1.087E-05    |
| 2189 | 3.031E+05            | 5.735E-08 | 1.034E-05    |
| 2190 | 3.031E+05            | 5.455E-08 | 9.832E-06    |
| 2191 | 3.031E+05            | 5.189E-08 | 9.352E-06    |
| 2192 | 3.031E+05            | 4.936E-08 | 8.896E-06    |
| 2193 | 3.031E+05            | 4.696E-08 | 8.462E-06    |
| 2194 | 3.031E+05            | 4.467E-08 | 8.049E-06    |
| 2195 | 3.031E+05            | 4.249E-08 | 7.657E-06    |
| 2196 | 3.031E+05            | 4.042E-08 | 7.283E-06    |
| 2197 | 3.031E+05            | 3.844E-08 | 6.928E-06    |
| 2198 | 3.031E+05            | 3.657E-08 | 6.590E-06    |
| 2199 | 3.031E+05            | 3.479E-08 | 6.269E-06    |
| 2200 | 3.031E+05            | 3.309E-08 | 5.963E-06    |
| 2201 | 3.031E+05            | 3.148E-08 | 5.672E-06    |
| 2202 | 3.031E+05            | 2.994E-08 | 5.396E-06    |
| 2203 | 3.031E+05            | 2.848E-08 | 5.133E-06    |

Table D-5. Emission Rate of 1,1-Dichloroethene from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA1.PRM

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=====
                        Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : 1,1-Dichloroethene (HAP/VOC)
Molecular Wt = 96.94      Concentration = 0.030000 ppmV
=====

                        Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                        Model Results
=====
Year      Refuse In Place (Mg)      1,1-Dichloroethene (HAP/VOC) Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      4.870E-05      1.208E-02
1976      6.063E+04      9.502E-05      2.357E-02
1977      9.094E+04      1.391E-04      3.449E-02
1978      1.213E+05      1.810E-04      4.489E-02
1979      1.516E+05      2.209E-04      5.478E-02
1980      1.819E+05      2.588E-04      6.418E-02
1981      2.122E+05      2.949E-04      7.313E-02
1982      2.425E+05      3.292E-04      8.164E-02
1983      2.728E+05      3.618E-04      8.974E-02
1984      3.031E+05      3.929E-04      9.744E-02
1985      3.031E+05      3.737E-04      9.269E-02
1986      3.031E+05      3.555E-04      8.817E-02
1987      3.031E+05      3.382E-04      8.387E-02
1988      3.031E+05      3.217E-04      7.978E-02
1989      3.031E+05      3.060E-04      7.589E-02
1990      3.031E+05      2.911E-04      7.219E-02
1991      3.031E+05      2.769E-04      6.867E-02
1992      3.031E+05      2.634E-04      6.532E-02
1993      3.031E+05      2.505E-04      6.213E-02
1994      3.031E+05      2.383E-04      5.910E-02
1995      3.031E+05      2.267E-04      5.622E-02
1996      3.031E+05      2.156E-04      5.348E-02
1997      3.031E+05      2.051E-04      5.087E-02
1998      3.031E+05      1.951E-04      4.839E-02
1999      3.031E+05      1.856E-04      4.603E-02
2000      3.031E+05      1.765E-04      4.378E-02
2001      3.031E+05      1.679E-04      4.165E-02
2002      3.031E+05      1.597E-04      3.962E-02
2003      3.031E+05      1.519E-04      3.768E-02
2004      3.031E+05      1.445E-04      3.585E-02
2005      3.031E+05      1.375E-04      3.410E-02
2006      3.031E+05      1.308E-04      3.244E-02
2007      3.031E+05      1.244E-04      3.085E-02
2008      3.031E+05      1.183E-04      2.935E-02
2009      3.031E+05      1.126E-04      2.792E-02
2010      3.031E+05      1.071E-04      2.656E-02
2011      3.031E+05      1.019E-04      2.526E-02
2012      3.031E+05      9.688E-05      2.403E-02
2013      3.031E+05      9.216E-05      2.286E-02
2014      3.031E+05      8.766E-05      2.174E-02
2015      3.031E+05      8.339E-05      2.068E-02
2016      3.031E+05      7.932E-05      1.967E-02
2017      3.031E+05      7.545E-05      1.871E-02
2018      3.031E+05      7.177E-05      1.780E-02
=====

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continued

Table D-5. Emission Rate of 1,1-Dichloroethene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 6.827E-05 | 1.693E-02    |
| 2020 | 3.031E+05            | 6.494E-05 | 1.611E-02    |
| 2021 | 3.031E+05            | 6.178E-05 | 1.532E-02    |
| 2022 | 3.031E+05            | 5.876E-05 | 1.457E-02    |
| 2023 | 3.031E+05            | 5.590E-05 | 1.386E-02    |
| 2024 | 3.031E+05            | 5.317E-05 | 1.319E-02    |
| 2025 | 3.031E+05            | 5.058E-05 | 1.254E-02    |
| 2026 | 3.031E+05            | 4.811E-05 | 1.193E-02    |
| 2027 | 3.031E+05            | 4.576E-05 | 1.135E-02    |
| 2028 | 3.031E+05            | 4.353E-05 | 1.080E-02    |
| 2029 | 3.031E+05            | 4.141E-05 | 1.027E-02    |
| 2030 | 3.031E+05            | 3.939E-05 | 9.769E-03    |
| 2031 | 3.031E+05            | 3.747E-05 | 9.293E-03    |
| 2032 | 3.031E+05            | 3.564E-05 | 8.840E-03    |
| 2033 | 3.031E+05            | 3.390E-05 | 8.408E-03    |
| 2034 | 3.031E+05            | 3.225E-05 | 7.998E-03    |
| 2035 | 3.031E+05            | 3.068E-05 | 7.608E-03    |
| 2036 | 3.031E+05            | 2.918E-05 | 7.237E-03    |
| 2037 | 3.031E+05            | 2.776E-05 | 6.884E-03    |
| 2038 | 3.031E+05            | 2.640E-05 | 6.549E-03    |
| 2039 | 3.031E+05            | 2.512E-05 | 6.229E-03    |
| 2040 | 3.031E+05            | 2.389E-05 | 5.925E-03    |
| 2041 | 3.031E+05            | 2.273E-05 | 5.636E-03    |
| 2042 | 3.031E+05            | 2.162E-05 | 5.361E-03    |
| 2043 | 3.031E+05            | 2.056E-05 | 5.100E-03    |
| 2044 | 3.031E+05            | 1.956E-05 | 4.851E-03    |
| 2045 | 3.031E+05            | 1.861E-05 | 4.615E-03    |
| 2046 | 3.031E+05            | 1.770E-05 | 4.390E-03    |
| 2047 | 3.031E+05            | 1.684E-05 | 4.176E-03    |
| 2048 | 3.031E+05            | 1.601E-05 | 3.972E-03    |
| 2049 | 3.031E+05            | 1.523E-05 | 3.778E-03    |
| 2050 | 3.031E+05            | 1.449E-05 | 3.594E-03    |
| 2051 | 3.031E+05            | 1.378E-05 | 3.419E-03    |
| 2052 | 3.031E+05            | 1.311E-05 | 3.252E-03    |
| 2053 | 3.031E+05            | 1.247E-05 | 3.093E-03    |
| 2054 | 3.031E+05            | 1.186E-05 | 2.942E-03    |
| 2055 | 3.031E+05            | 1.129E-05 | 2.799E-03    |
| 2056 | 3.031E+05            | 1.073E-05 | 2.662E-03    |
| 2057 | 3.031E+05            | 1.021E-05 | 2.533E-03    |
| 2058 | 3.031E+05            | 9.713E-06 | 2.409E-03    |
| 2059 | 3.031E+05            | 9.240E-06 | 2.292E-03    |
| 2060 | 3.031E+05            | 8.789E-06 | 2.180E-03    |
| 2061 | 3.031E+05            | 8.360E-06 | 2.074E-03    |
| 2062 | 3.031E+05            | 7.953E-06 | 1.972E-03    |
| 2063 | 3.031E+05            | 7.565E-06 | 1.876E-03    |
| 2064 | 3.031E+05            | 7.196E-06 | 1.785E-03    |
| 2065 | 3.031E+05            | 6.845E-06 | 1.698E-03    |
| 2066 | 3.031E+05            | 6.511E-06 | 1.615E-03    |
| 2067 | 3.031E+05            | 6.194E-06 | 1.536E-03    |
| 2068 | 3.031E+05            | 5.891E-06 | 1.461E-03    |
| 2069 | 3.031E+05            | 5.604E-06 | 1.390E-03    |
| 2070 | 3.031E+05            | 5.331E-06 | 1.322E-03    |
| 2071 | 3.031E+05            | 5.071E-06 | 1.258E-03    |
| 2072 | 3.031E+05            | 4.824E-06 | 1.196E-03    |
| 2073 | 3.031E+05            | 4.588E-06 | 1.138E-03    |
| 2074 | 3.031E+05            | 4.365E-06 | 1.082E-03    |
| 2075 | 3.031E+05            | 4.152E-06 | 1.030E-03    |
| 2076 | 3.031E+05            | 3.949E-06 | 9.795E-04    |
| 2077 | 3.031E+05            | 3.757E-06 | 9.317E-04    |
| 2078 | 3.031E+05            | 3.573E-06 | 8.862E-04    |
| 2079 | 3.031E+05            | 3.399E-06 | 8.430E-04    |
| 2080 | 3.031E+05            | 3.233E-06 | 8.019E-04    |
| 2081 | 3.031E+05            | 3.076E-06 | 7.628E-04    |
| 2082 | 3.031E+05            | 2.926E-06 | 7.256E-04    |
| 2083 | 3.031E+05            | 2.783E-06 | 6.902E-04    |
| 2084 | 3.031E+05            | 2.647E-06 | 6.565E-04    |
| 2085 | 3.031E+05            | 2.518E-06 | 6.245E-04    |
| 2086 | 3.031E+05            | 2.395E-06 | 5.941E-04    |
| 2087 | 3.031E+05            | 2.278E-06 | 5.651E-04    |
| 2088 | 3.031E+05            | 2.167E-06 | 5.375E-04    |

continued

Table D-5. Emission Rate of 1,1-Dichloroethene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 2.062E-06 | 5.113E-04    |
| 2090 | 3.031E+05            | 1.961E-06 | 4.864E-04    |
| 2091 | 3.031E+05            | 1.865E-06 | 4.627E-04    |
| 2092 | 3.031E+05            | 1.774E-06 | 4.401E-04    |
| 2093 | 3.031E+05            | 1.688E-06 | 4.186E-04    |
| 2094 | 3.031E+05            | 1.606E-06 | 3.982E-04    |
| 2095 | 3.031E+05            | 1.527E-06 | 3.788E-04    |
| 2096 | 3.031E+05            | 1.453E-06 | 3.603E-04    |
| 2097 | 3.031E+05            | 1.382E-06 | 3.427E-04    |
| 2098 | 3.031E+05            | 1.315E-06 | 3.260E-04    |
| 2099 | 3.031E+05            | 1.250E-06 | 3.101E-04    |
| 2100 | 3.031E+05            | 1.189E-06 | 2.950E-04    |
| 2101 | 3.031E+05            | 1.131E-06 | 2.806E-04    |
| 2102 | 3.031E+05            | 1.076E-06 | 2.669E-04    |
| 2103 | 3.031E+05            | 1.024E-06 | 2.539E-04    |
| 2104 | 3.031E+05            | 9.739E-07 | 2.415E-04    |
| 2105 | 3.031E+05            | 9.264E-07 | 2.298E-04    |
| 2106 | 3.031E+05            | 8.812E-07 | 2.185E-04    |
| 2107 | 3.031E+05            | 8.382E-07 | 2.079E-04    |
| 2108 | 3.031E+05            | 7.973E-07 | 1.977E-04    |
| 2109 | 3.031E+05            | 7.584E-07 | 1.881E-04    |
| 2110 | 3.031E+05            | 7.214E-07 | 1.789E-04    |
| 2111 | 3.031E+05            | 6.863E-07 | 1.702E-04    |
| 2112 | 3.031E+05            | 6.528E-07 | 1.619E-04    |
| 2113 | 3.031E+05            | 6.210E-07 | 1.540E-04    |
| 2114 | 3.031E+05            | 5.907E-07 | 1.465E-04    |
| 2115 | 3.031E+05            | 5.619E-07 | 1.394E-04    |
| 2116 | 3.031E+05            | 5.345E-07 | 1.326E-04    |
| 2117 | 3.031E+05            | 5.084E-07 | 1.261E-04    |
| 2118 | 3.031E+05            | 4.836E-07 | 1.199E-04    |
| 2119 | 3.031E+05            | 4.600E-07 | 1.141E-04    |
| 2120 | 3.031E+05            | 4.376E-07 | 1.085E-04    |
| 2121 | 3.031E+05            | 4.162E-07 | 1.032E-04    |
| 2122 | 3.031E+05            | 3.959E-07 | 9.820E-05    |
| 2123 | 3.031E+05            | 3.766E-07 | 9.341E-05    |
| 2124 | 3.031E+05            | 3.583E-07 | 8.885E-05    |
| 2125 | 3.031E+05            | 3.408E-07 | 8.452E-05    |
| 2126 | 3.031E+05            | 3.242E-07 | 8.040E-05    |
| 2127 | 3.031E+05            | 3.084E-07 | 7.648E-05    |
| 2128 | 3.031E+05            | 2.933E-07 | 7.275E-05    |
| 2129 | 3.031E+05            | 2.790E-07 | 6.920E-05    |
| 2130 | 3.031E+05            | 2.654E-07 | 6.582E-05    |
| 2131 | 3.031E+05            | 2.525E-07 | 6.261E-05    |
| 2132 | 3.031E+05            | 2.401E-07 | 5.956E-05    |
| 2133 | 3.031E+05            | 2.284E-07 | 5.666E-05    |
| 2134 | 3.031E+05            | 2.173E-07 | 5.389E-05    |
| 2135 | 3.031E+05            | 2.067E-07 | 5.126E-05    |
| 2136 | 3.031E+05            | 1.966E-07 | 4.876E-05    |
| 2137 | 3.031E+05            | 1.870E-07 | 4.639E-05    |
| 2138 | 3.031E+05            | 1.779E-07 | 4.412E-05    |
| 2139 | 3.031E+05            | 1.692E-07 | 4.197E-05    |
| 2140 | 3.031E+05            | 1.610E-07 | 3.992E-05    |
| 2141 | 3.031E+05            | 1.531E-07 | 3.798E-05    |
| 2142 | 3.031E+05            | 1.457E-07 | 3.613E-05    |
| 2143 | 3.031E+05            | 1.386E-07 | 3.436E-05    |
| 2144 | 3.031E+05            | 1.318E-07 | 3.269E-05    |
| 2145 | 3.031E+05            | 1.254E-07 | 3.109E-05    |
| 2146 | 3.031E+05            | 1.193E-07 | 2.958E-05    |
| 2147 | 3.031E+05            | 1.134E-07 | 2.813E-05    |
| 2148 | 3.031E+05            | 1.079E-07 | 2.676E-05    |
| 2149 | 3.031E+05            | 1.026E-07 | 2.546E-05    |
| 2150 | 3.031E+05            | 9.764E-08 | 2.422E-05    |
| 2151 | 3.031E+05            | 9.288E-08 | 2.303E-05    |
| 2152 | 3.031E+05            | 8.835E-08 | 2.191E-05    |
| 2153 | 3.031E+05            | 8.404E-08 | 2.084E-05    |
| 2154 | 3.031E+05            | 7.994E-08 | 1.983E-05    |
| 2155 | 3.031E+05            | 7.604E-08 | 1.886E-05    |
| 2156 | 3.031E+05            | 7.233E-08 | 1.794E-05    |
| 2157 | 3.031E+05            | 6.880E-08 | 1.706E-05    |
| 2158 | 3.031E+05            | 6.545E-08 | 1.623E-05    |

continued

Table D-5. Emission Rate of 1,1-Dichloroethene from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 6.226E-08 | 1.544E-05    |
| 2160 | 3.031E+05            | 5.922E-08 | 1.469E-05    |
| 2161 | 3.031E+05            | 5.633E-08 | 1.397E-05    |
| 2162 | 3.031E+05            | 5.358E-08 | 1.329E-05    |
| 2163 | 3.031E+05            | 5.097E-08 | 1.264E-05    |
| 2164 | 3.031E+05            | 4.849E-08 | 1.203E-05    |
| 2165 | 3.031E+05            | 4.612E-08 | 1.144E-05    |
| 2166 | 3.031E+05            | 4.387E-08 | 1.088E-05    |
| 2167 | 3.031E+05            | 4.173E-08 | 1.035E-05    |
| 2168 | 3.031E+05            | 3.970E-08 | 9.845E-06    |
| 2169 | 3.031E+05            | 3.776E-08 | 9.365E-06    |
| 2170 | 3.031E+05            | 3.592E-08 | 8.908E-06    |
| 2171 | 3.031E+05            | 3.417E-08 | 8.474E-06    |
| 2172 | 3.031E+05            | 3.250E-08 | 8.061E-06    |
| 2173 | 3.031E+05            | 3.092E-08 | 7.668E-06    |
| 2174 | 3.031E+05            | 2.941E-08 | 7.294E-06    |
| 2175 | 3.031E+05            | 2.797E-08 | 6.938E-06    |
| 2176 | 3.031E+05            | 2.661E-08 | 6.600E-06    |
| 2177 | 3.031E+05            | 2.531E-08 | 6.278E-06    |
| 2178 | 3.031E+05            | 2.408E-08 | 5.971E-06    |
| 2179 | 3.031E+05            | 2.290E-08 | 5.680E-06    |
| 2180 | 3.031E+05            | 2.179E-08 | 5.403E-06    |
| 2181 | 3.031E+05            | 2.072E-08 | 5.140E-06    |
| 2182 | 3.031E+05            | 1.971E-08 | 4.889E-06    |
| 2183 | 3.031E+05            | 1.875E-08 | 4.651E-06    |
| 2184 | 3.031E+05            | 1.784E-08 | 4.424E-06    |
| 2185 | 3.031E+05            | 1.697E-08 | 4.208E-06    |
| 2186 | 3.031E+05            | 1.614E-08 | 4.003E-06    |
| 2187 | 3.031E+05            | 1.535E-08 | 3.808E-06    |
| 2188 | 3.031E+05            | 1.460E-08 | 3.622E-06    |
| 2189 | 3.031E+05            | 1.389E-08 | 3.445E-06    |
| 2190 | 3.031E+05            | 1.321E-08 | 3.277E-06    |
| 2191 | 3.031E+05            | 1.257E-08 | 3.117E-06    |
| 2192 | 3.031E+05            | 1.196E-08 | 2.965E-06    |
| 2193 | 3.031E+05            | 1.137E-08 | 2.821E-06    |
| 2194 | 3.031E+05            | 1.082E-08 | 2.683E-06    |
| 2195 | 3.031E+05            | 1.029E-08 | 2.552E-06    |
| 2196 | 3.031E+05            | 9.789E-09 | 2.428E-06    |
| 2197 | 3.031E+05            | 9.312E-09 | 2.309E-06    |
| 2198 | 3.031E+05            | 8.857E-09 | 2.197E-06    |
| 2199 | 3.031E+05            | 8.425E-09 | 2.090E-06    |
| 2200 | 3.031E+05            | 8.015E-09 | 1.988E-06    |
| 2201 | 3.031E+05            | 7.624E-09 | 1.891E-06    |
| 2202 | 3.031E+05            | 7.252E-09 | 1.799E-06    |
| 2203 | 3.031E+05            | 6.898E-09 | 1.711E-06    |

Table D-6. Emission Rate of 1,2-Dichloroethane from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA1.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : 1,2-Dichloroethane (HAP/VOC)
Molecular Wt = 98.96      Concentration = 0.070000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      1,2-Dichloroethane (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      1.160E-04      2.818E-02
1976      6.063E+04      2.263E-04      5.499E-02
1977      9.094E+04      3.313E-04      8.049E-02
1978      1.213E+05      4.311E-04      1.047E-01
1979      1.516E+05      5.261E-04      1.278E-01
1980      1.819E+05      6.164E-04      1.498E-01
1981      2.122E+05      7.024E-04      1.706E-01
1982      2.425E+05      7.841E-04      1.905E-01
1983      2.728E+05      8.619E-04      2.094E-01
1984      3.031E+05      9.358E-04      2.274E-01
1985      3.031E+05      8.902E-04      2.163E-01
1986      3.031E+05      8.468E-04      2.057E-01
1987      3.031E+05      8.055E-04      1.957E-01
1988      3.031E+05      7.662E-04      1.861E-01
1989      3.031E+05      7.288E-04      1.771E-01
1990      3.031E+05      6.933E-04      1.684E-01
1991      3.031E+05      6.595E-04      1.602E-01
1992      3.031E+05      6.273E-04      1.524E-01
1993      3.031E+05      5.967E-04      1.450E-01
1994      3.031E+05      5.676E-04      1.379E-01
1995      3.031E+05      5.399E-04      1.312E-01
1996      3.031E+05      5.136E-04      1.248E-01
1997      3.031E+05      4.885E-04      1.187E-01
1998      3.031E+05      4.647E-04      1.129E-01
1999      3.031E+05      4.421E-04      1.074E-01
2000      3.031E+05      4.205E-04      1.022E-01
2001      3.031E+05      4.000E-04      9.718E-02
2002      3.031E+05      3.805E-04      9.244E-02
2003      3.031E+05      3.619E-04      8.793E-02
2004      3.031E+05      3.443E-04      8.364E-02
2005      3.031E+05      3.275E-04      7.956E-02
2006      3.031E+05      3.115E-04      7.568E-02
2007      3.031E+05      2.963E-04      7.199E-02
2008      3.031E+05      2.819E-04      6.848E-02
2009      3.031E+05      2.681E-04      6.514E-02
2010      3.031E+05      2.550E-04      6.196E-02
2011      3.031E+05      2.426E-04      5.894E-02
2012      3.031E+05      2.308E-04      5.607E-02
2013      3.031E+05      2.195E-04      5.333E-02
2014      3.031E+05      2.088E-04      5.073E-02
2015      3.031E+05      1.986E-04      4.826E-02
2016      3.031E+05      1.889E-04      4.590E-02
2017      3.031E+05      1.797E-04      4.366E-02
2018      3.031E+05      1.710E-04      4.154E-02
=====

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continued

Table D-6. Emission Rate of 1,2-Dichloroethane from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 1.626E-04 | 3.951E-02    |
| 2020 | 3.031E+05            | 1.547E-04 | 3.758E-02    |
| 2021 | 3.031E+05            | 1.471E-04 | 3.575E-02    |
| 2022 | 3.031E+05            | 1.400E-04 | 3.401E-02    |
| 2023 | 3.031E+05            | 1.331E-04 | 3.235E-02    |
| 2024 | 3.031E+05            | 1.266E-04 | 3.077E-02    |
| 2025 | 3.031E+05            | 1.205E-04 | 2.927E-02    |
| 2026 | 3.031E+05            | 1.146E-04 | 2.784E-02    |
| 2027 | 3.031E+05            | 1.090E-04 | 2.648E-02    |
| 2028 | 3.031E+05            | 1.037E-04 | 2.519E-02    |
| 2029 | 3.031E+05            | 9.864E-05 | 2.396E-02    |
| 2030 | 3.031E+05            | 9.382E-05 | 2.279E-02    |
| 2031 | 3.031E+05            | 8.925E-05 | 2.168E-02    |
| 2032 | 3.031E+05            | 8.490E-05 | 2.063E-02    |
| 2033 | 3.031E+05            | 8.076E-05 | 1.962E-02    |
| 2034 | 3.031E+05            | 7.682E-05 | 1.866E-02    |
| 2035 | 3.031E+05            | 7.307E-05 | 1.775E-02    |
| 2036 | 3.031E+05            | 6.951E-05 | 1.689E-02    |
| 2037 | 3.031E+05            | 6.612E-05 | 1.606E-02    |
| 2038 | 3.031E+05            | 6.289E-05 | 1.528E-02    |
| 2039 | 3.031E+05            | 5.983E-05 | 1.453E-02    |
| 2040 | 3.031E+05            | 5.691E-05 | 1.383E-02    |
| 2041 | 3.031E+05            | 5.413E-05 | 1.315E-02    |
| 2042 | 3.031E+05            | 5.149E-05 | 1.251E-02    |
| 2043 | 3.031E+05            | 4.898E-05 | 1.190E-02    |
| 2044 | 3.031E+05            | 4.659E-05 | 1.132E-02    |
| 2045 | 3.031E+05            | 4.432E-05 | 1.077E-02    |
| 2046 | 3.031E+05            | 4.216E-05 | 1.024E-02    |
| 2047 | 3.031E+05            | 4.010E-05 | 9.743E-03    |
| 2048 | 3.031E+05            | 3.815E-05 | 9.268E-03    |
| 2049 | 3.031E+05            | 3.629E-05 | 8.816E-03    |
| 2050 | 3.031E+05            | 3.452E-05 | 8.386E-03    |
| 2051 | 3.031E+05            | 3.283E-05 | 7.977E-03    |
| 2052 | 3.031E+05            | 3.123E-05 | 7.588E-03    |
| 2053 | 3.031E+05            | 2.971E-05 | 7.218E-03    |
| 2054 | 3.031E+05            | 2.826E-05 | 6.866E-03    |
| 2055 | 3.031E+05            | 2.688E-05 | 6.531E-03    |
| 2056 | 3.031E+05            | 2.557E-05 | 6.212E-03    |
| 2057 | 3.031E+05            | 2.432E-05 | 5.909E-03    |
| 2058 | 3.031E+05            | 2.314E-05 | 5.621E-03    |
| 2059 | 3.031E+05            | 2.201E-05 | 5.347E-03    |
| 2060 | 3.031E+05            | 2.094E-05 | 5.086E-03    |
| 2061 | 3.031E+05            | 1.991E-05 | 4.838E-03    |
| 2062 | 3.031E+05            | 1.894E-05 | 4.602E-03    |
| 2063 | 3.031E+05            | 1.802E-05 | 4.378E-03    |
| 2064 | 3.031E+05            | 1.714E-05 | 4.164E-03    |
| 2065 | 3.031E+05            | 1.630E-05 | 3.961E-03    |
| 2066 | 3.031E+05            | 1.551E-05 | 3.768E-03    |
| 2067 | 3.031E+05            | 1.475E-05 | 3.584E-03    |
| 2068 | 3.031E+05            | 1.403E-05 | 3.409E-03    |
| 2069 | 3.031E+05            | 1.335E-05 | 3.243E-03    |
| 2070 | 3.031E+05            | 1.270E-05 | 3.085E-03    |
| 2071 | 3.031E+05            | 1.208E-05 | 2.935E-03    |
| 2072 | 3.031E+05            | 1.149E-05 | 2.791E-03    |
| 2073 | 3.031E+05            | 1.093E-05 | 2.655E-03    |
| 2074 | 3.031E+05            | 1.040E-05 | 2.526E-03    |
| 2075 | 3.031E+05            | 9.889E-06 | 2.403E-03    |
| 2076 | 3.031E+05            | 9.407E-06 | 2.285E-03    |
| 2077 | 3.031E+05            | 8.948E-06 | 2.174E-03    |
| 2078 | 3.031E+05            | 8.512E-06 | 2.068E-03    |
| 2079 | 3.031E+05            | 8.096E-06 | 1.967E-03    |
| 2080 | 3.031E+05            | 7.702E-06 | 1.871E-03    |
| 2081 | 3.031E+05            | 7.326E-06 | 1.780E-03    |
| 2082 | 3.031E+05            | 6.969E-06 | 1.693E-03    |
| 2083 | 3.031E+05            | 6.629E-06 | 1.610E-03    |
| 2084 | 3.031E+05            | 6.306E-06 | 1.532E-03    |
| 2085 | 3.031E+05            | 5.998E-06 | 1.457E-03    |
| 2086 | 3.031E+05            | 5.705E-06 | 1.386E-03    |
| 2087 | 3.031E+05            | 5.427E-06 | 1.319E-03    |
| 2088 | 3.031E+05            | 5.163E-06 | 1.254E-03    |

continued



Table D-6. Emission Rate of 1,2-Dichloroethane from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 4.911E-06 | 1.193E-03    |
| 2090 | 3.031E+05            | 4.671E-06 | 1.135E-03    |
| 2091 | 3.031E+05            | 4.443E-06 | 1.080E-03    |
| 2092 | 3.031E+05            | 4.227E-06 | 1.027E-03    |
| 2093 | 3.031E+05            | 4.021E-06 | 9.768E-04    |
| 2094 | 3.031E+05            | 3.824E-06 | 9.292E-04    |
| 2095 | 3.031E+05            | 3.638E-06 | 8.839E-04    |
| 2096 | 3.031E+05            | 3.461E-06 | 8.408E-04    |
| 2097 | 3.031E+05            | 3.292E-06 | 7.997E-04    |
| 2098 | 3.031E+05            | 3.131E-06 | 7.607E-04    |
| 2099 | 3.031E+05            | 2.979E-06 | 7.236E-04    |
| 2100 | 3.031E+05            | 2.833E-06 | 6.883E-04    |
| 2101 | 3.031E+05            | 2.695E-06 | 6.548E-04    |
| 2102 | 3.031E+05            | 2.564E-06 | 6.228E-04    |
| 2103 | 3.031E+05            | 2.439E-06 | 5.925E-04    |
| 2104 | 3.031E+05            | 2.320E-06 | 5.636E-04    |
| 2105 | 3.031E+05            | 2.207E-06 | 5.361E-04    |
| 2106 | 3.031E+05            | 2.099E-06 | 5.099E-04    |
| 2107 | 3.031E+05            | 1.997E-06 | 4.851E-04    |
| 2108 | 3.031E+05            | 1.899E-06 | 4.614E-04    |
| 2109 | 3.031E+05            | 1.807E-06 | 4.389E-04    |
| 2110 | 3.031E+05            | 1.718E-06 | 4.175E-04    |
| 2111 | 3.031E+05            | 1.635E-06 | 3.971E-04    |
| 2112 | 3.031E+05            | 1.555E-06 | 3.778E-04    |
| 2113 | 3.031E+05            | 1.479E-06 | 3.593E-04    |
| 2114 | 3.031E+05            | 1.407E-06 | 3.418E-04    |
| 2115 | 3.031E+05            | 1.338E-06 | 3.252E-04    |
| 2116 | 3.031E+05            | 1.273E-06 | 3.093E-04    |
| 2117 | 3.031E+05            | 1.211E-06 | 2.942E-04    |
| 2118 | 3.031E+05            | 1.152E-06 | 2.799E-04    |
| 2119 | 3.031E+05            | 1.096E-06 | 2.662E-04    |
| 2120 | 3.031E+05            | 1.042E-06 | 2.532E-04    |
| 2121 | 3.031E+05            | 9.915E-07 | 2.409E-04    |
| 2122 | 3.031E+05            | 9.431E-07 | 2.291E-04    |
| 2123 | 3.031E+05            | 8.971E-07 | 2.180E-04    |
| 2124 | 3.031E+05            | 8.534E-07 | 2.073E-04    |
| 2125 | 3.031E+05            | 8.117E-07 | 1.972E-04    |
| 2126 | 3.031E+05            | 7.722E-07 | 1.876E-04    |
| 2127 | 3.031E+05            | 7.345E-07 | 1.784E-04    |
| 2128 | 3.031E+05            | 6.987E-07 | 1.697E-04    |
| 2129 | 3.031E+05            | 6.646E-07 | 1.615E-04    |
| 2130 | 3.031E+05            | 6.322E-07 | 1.536E-04    |
| 2131 | 3.031E+05            | 6.014E-07 | 1.461E-04    |
| 2132 | 3.031E+05            | 5.720E-07 | 1.390E-04    |
| 2133 | 3.031E+05            | 5.441E-07 | 1.322E-04    |
| 2134 | 3.031E+05            | 5.176E-07 | 1.257E-04    |
| 2135 | 3.031E+05            | 4.923E-07 | 1.196E-04    |
| 2136 | 3.031E+05            | 4.683E-07 | 1.138E-04    |
| 2137 | 3.031E+05            | 4.455E-07 | 1.082E-04    |
| 2138 | 3.031E+05            | 4.238E-07 | 1.030E-04    |
| 2139 | 3.031E+05            | 4.031E-07 | 9.793E-05    |
| 2140 | 3.031E+05            | 3.834E-07 | 9.316E-05    |
| 2141 | 3.031E+05            | 3.647E-07 | 8.861E-05    |
| 2142 | 3.031E+05            | 3.470E-07 | 8.429E-05    |
| 2143 | 3.031E+05            | 3.300E-07 | 8.018E-05    |
| 2144 | 3.031E+05            | 3.139E-07 | 7.627E-05    |
| 2145 | 3.031E+05            | 2.986E-07 | 7.255E-05    |
| 2146 | 3.031E+05            | 2.841E-07 | 6.901E-05    |
| 2147 | 3.031E+05            | 2.702E-07 | 6.565E-05    |
| 2148 | 3.031E+05            | 2.570E-07 | 6.245E-05    |
| 2149 | 3.031E+05            | 2.445E-07 | 5.940E-05    |
| 2150 | 3.031E+05            | 2.326E-07 | 5.650E-05    |
| 2151 | 3.031E+05            | 2.212E-07 | 5.375E-05    |
| 2152 | 3.031E+05            | 2.104E-07 | 5.113E-05    |
| 2153 | 3.031E+05            | 2.002E-07 | 4.863E-05    |
| 2154 | 3.031E+05            | 1.904E-07 | 4.626E-05    |
| 2155 | 3.031E+05            | 1.811E-07 | 4.400E-05    |
| 2156 | 3.031E+05            | 1.723E-07 | 4.186E-05    |
| 2157 | 3.031E+05            | 1.639E-07 | 3.982E-05    |
| 2158 | 3.031E+05            | 1.559E-07 | 3.788E-05    |

continued

Table D-6. Emission Rate of 1,2-Dichloroethane from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 1.483E-07 | 3.603E-05    |
| 2160 | 3.031E+05            | 1.411E-07 | 3.427E-05    |
| 2161 | 3.031E+05            | 1.342E-07 | 3.260E-05    |
| 2162 | 3.031E+05            | 1.276E-07 | 3.101E-05    |
| 2163 | 3.031E+05            | 1.214E-07 | 2.950E-05    |
| 2164 | 3.031E+05            | 1.155E-07 | 2.806E-05    |
| 2165 | 3.031E+05            | 1.099E-07 | 2.669E-05    |
| 2166 | 3.031E+05            | 1.045E-07 | 2.539E-05    |
| 2167 | 3.031E+05            | 9.940E-08 | 2.415E-05    |
| 2168 | 3.031E+05            | 9.456E-08 | 2.297E-05    |
| 2169 | 3.031E+05            | 8.994E-08 | 2.185E-05    |
| 2170 | 3.031E+05            | 8.556E-08 | 2.079E-05    |
| 2171 | 3.031E+05            | 8.138E-08 | 1.977E-05    |
| 2172 | 3.031E+05            | 7.742E-08 | 1.881E-05    |
| 2173 | 3.031E+05            | 7.364E-08 | 1.789E-05    |
| 2174 | 3.031E+05            | 7.005E-08 | 1.702E-05    |
| 2175 | 3.031E+05            | 6.663E-08 | 1.619E-05    |
| 2176 | 3.031E+05            | 6.338E-08 | 1.540E-05    |
| 2177 | 3.031E+05            | 6.029E-08 | 1.465E-05    |
| 2178 | 3.031E+05            | 5.735E-08 | 1.393E-05    |
| 2179 | 3.031E+05            | 5.455E-08 | 1.325E-05    |
| 2180 | 3.031E+05            | 5.189E-08 | 1.261E-05    |
| 2181 | 3.031E+05            | 4.936E-08 | 1.199E-05    |
| 2182 | 3.031E+05            | 4.695E-08 | 1.141E-05    |
| 2183 | 3.031E+05            | 4.466E-08 | 1.085E-05    |
| 2184 | 3.031E+05            | 4.249E-08 | 1.032E-05    |
| 2185 | 3.031E+05            | 4.041E-08 | 9.819E-06    |
| 2186 | 3.031E+05            | 3.844E-08 | 9.340E-06    |
| 2187 | 3.031E+05            | 3.657E-08 | 8.884E-06    |
| 2188 | 3.031E+05            | 3.478E-08 | 8.451E-06    |
| 2189 | 3.031E+05            | 3.309E-08 | 8.039E-06    |
| 2190 | 3.031E+05            | 3.147E-08 | 7.647E-06    |
| 2191 | 3.031E+05            | 2.994E-08 | 7.274E-06    |
| 2192 | 3.031E+05            | 2.848E-08 | 6.919E-06    |
| 2193 | 3.031E+05            | 2.709E-08 | 6.582E-06    |
| 2194 | 3.031E+05            | 2.577E-08 | 6.261E-06    |
| 2195 | 3.031E+05            | 2.451E-08 | 5.955E-06    |
| 2196 | 3.031E+05            | 2.332E-08 | 5.665E-06    |
| 2197 | 3.031E+05            | 2.218E-08 | 5.389E-06    |
| 2198 | 3.031E+05            | 2.110E-08 | 5.126E-06    |
| 2199 | 3.031E+05            | 2.007E-08 | 4.876E-06    |
| 2200 | 3.031E+05            | 1.909E-08 | 4.638E-06    |
| 2201 | 3.031E+05            | 1.816E-08 | 4.412E-06    |
| 2202 | 3.031E+05            | 1.727E-08 | 4.197E-06    |
| 2203 | 3.031E+05            | 1.643E-08 | 3.992E-06    |

Table D-7. Emission Rate of Benzene from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA1.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Benzene (HAP/VOC)
Molecular Wt = 78.12      Concentration = 2.040000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      Benzene (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      2.669E-03      8.213E-01
1976      6.063E+04      5.207E-03      1.603E+00
1977      9.094E+04      7.622E-03      2.346E+00
1978      1.213E+05      9.918E-03      3.053E+00
1979      1.516E+05      1.210E-02      3.725E+00
1980      1.819E+05      1.418E-02      4.365E+00
1981      2.122E+05      1.616E-02      4.973E+00
1982      2.425E+05      1.804E-02      5.552E+00
1983      2.728E+05      1.983E-02      6.102E+00
1984      3.031E+05      2.153E-02      6.626E+00
1985      3.031E+05      2.048E-02      6.303E+00
1986      3.031E+05      1.948E-02      5.995E+00
1987      3.031E+05      1.853E-02      5.703E+00
1988      3.031E+05      1.763E-02      5.425E+00
1989      3.031E+05      1.677E-02      5.160E+00
1990      3.031E+05      1.595E-02      4.909E+00
1991      3.031E+05      1.517E-02      4.669E+00
1992      3.031E+05      1.443E-02      4.442E+00
1993      3.031E+05      1.373E-02      4.225E+00
1994      3.031E+05      1.306E-02      4.019E+00
1995      3.031E+05      1.242E-02      3.823E+00
1996      3.031E+05      1.182E-02      3.636E+00
1997      3.031E+05      1.124E-02      3.459E+00
1998      3.031E+05      1.069E-02      3.290E+00
1999      3.031E+05      1.017E-02      3.130E+00
2000      3.031E+05      9.674E-03      2.977E+00
2001      3.031E+05      9.202E-03      2.832E+00
2002      3.031E+05      8.753E-03      2.694E+00
2003      3.031E+05      8.326E-03      2.563E+00
2004      3.031E+05      7.920E-03      2.438E+00
2005      3.031E+05      7.534E-03      2.319E+00
2006      3.031E+05      7.166E-03      2.206E+00
2007      3.031E+05      6.817E-03      2.098E+00
2008      3.031E+05      6.484E-03      1.996E+00
2009      3.031E+05      6.168E-03      1.898E+00
2010      3.031E+05      5.867E-03      1.806E+00
2011      3.031E+05      5.581E-03      1.718E+00
2012      3.031E+05      5.309E-03      1.634E+00
2013      3.031E+05      5.050E-03      1.554E+00
2014      3.031E+05      4.804E-03      1.478E+00
2015      3.031E+05      4.570E-03      1.406E+00
2016      3.031E+05      4.347E-03      1.338E+00
2017      3.031E+05      4.135E-03      1.273E+00
2018      3.031E+05      3.933E-03      1.210E+00
=====

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continued

Table D-7. Emission Rate of Benzene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 3.741E-03 | 1.151E+00    |
| 2020 | 3.031E+05            | 3.559E-03 | 1.095E+00    |
| 2021 | 3.031E+05            | 3.385E-03 | 1.042E+00    |
| 2022 | 3.031E+05            | 3.220E-03 | 9.910E-01    |
| 2023 | 3.031E+05            | 3.063E-03 | 9.427E-01    |
| 2024 | 3.031E+05            | 2.914E-03 | 8.967E-01    |
| 2025 | 3.031E+05            | 2.772E-03 | 8.530E-01    |
| 2026 | 3.031E+05            | 2.636E-03 | 8.114E-01    |
| 2027 | 3.031E+05            | 2.508E-03 | 7.718E-01    |
| 2028 | 3.031E+05            | 2.386E-03 | 7.342E-01    |
| 2029 | 3.031E+05            | 2.269E-03 | 6.984E-01    |
| 2030 | 3.031E+05            | 2.158E-03 | 6.643E-01    |
| 2031 | 3.031E+05            | 2.053E-03 | 6.319E-01    |
| 2032 | 3.031E+05            | 1.953E-03 | 6.011E-01    |
| 2033 | 3.031E+05            | 1.858E-03 | 5.718E-01    |
| 2034 | 3.031E+05            | 1.767E-03 | 5.439E-01    |
| 2035 | 3.031E+05            | 1.681E-03 | 5.174E-01    |
| 2036 | 3.031E+05            | 1.599E-03 | 4.921E-01    |
| 2037 | 3.031E+05            | 1.521E-03 | 4.681E-01    |
| 2038 | 3.031E+05            | 1.447E-03 | 4.453E-01    |
| 2039 | 3.031E+05            | 1.376E-03 | 4.236E-01    |
| 2040 | 3.031E+05            | 1.309E-03 | 4.029E-01    |
| 2041 | 3.031E+05            | 1.245E-03 | 3.833E-01    |
| 2042 | 3.031E+05            | 1.185E-03 | 3.646E-01    |
| 2043 | 3.031E+05            | 1.127E-03 | 3.468E-01    |
| 2044 | 3.031E+05            | 1.072E-03 | 3.299E-01    |
| 2045 | 3.031E+05            | 1.020E-03 | 3.138E-01    |
| 2046 | 3.031E+05            | 9.699E-04 | 2.985E-01    |
| 2047 | 3.031E+05            | 9.226E-04 | 2.839E-01    |
| 2048 | 3.031E+05            | 8.776E-04 | 2.701E-01    |
| 2049 | 3.031E+05            | 8.348E-04 | 2.569E-01    |
| 2050 | 3.031E+05            | 7.941E-04 | 2.444E-01    |
| 2051 | 3.031E+05            | 7.553E-04 | 2.325E-01    |
| 2052 | 3.031E+05            | 7.185E-04 | 2.211E-01    |
| 2053 | 3.031E+05            | 6.835E-04 | 2.103E-01    |
| 2054 | 3.031E+05            | 6.501E-04 | 2.001E-01    |
| 2055 | 3.031E+05            | 6.184E-04 | 1.903E-01    |
| 2056 | 3.031E+05            | 5.883E-04 | 1.810E-01    |
| 2057 | 3.031E+05            | 5.596E-04 | 1.722E-01    |
| 2058 | 3.031E+05            | 5.323E-04 | 1.638E-01    |
| 2059 | 3.031E+05            | 5.063E-04 | 1.558E-01    |
| 2060 | 3.031E+05            | 4.816E-04 | 1.482E-01    |
| 2061 | 3.031E+05            | 4.581E-04 | 1.410E-01    |
| 2062 | 3.031E+05            | 4.358E-04 | 1.341E-01    |
| 2063 | 3.031E+05            | 4.145E-04 | 1.276E-01    |
| 2064 | 3.031E+05            | 3.943E-04 | 1.214E-01    |
| 2065 | 3.031E+05            | 3.751E-04 | 1.154E-01    |
| 2066 | 3.031E+05            | 3.568E-04 | 1.098E-01    |
| 2067 | 3.031E+05            | 3.394E-04 | 1.045E-01    |
| 2068 | 3.031E+05            | 3.228E-04 | 9.936E-02    |
| 2069 | 3.031E+05            | 3.071E-04 | 9.451E-02    |
| 2070 | 3.031E+05            | 2.921E-04 | 8.990E-02    |
| 2071 | 3.031E+05            | 2.779E-04 | 8.552E-02    |
| 2072 | 3.031E+05            | 2.643E-04 | 8.135E-02    |
| 2073 | 3.031E+05            | 2.514E-04 | 7.738E-02    |
| 2074 | 3.031E+05            | 2.392E-04 | 7.361E-02    |
| 2075 | 3.031E+05            | 2.275E-04 | 7.002E-02    |
| 2076 | 3.031E+05            | 2.164E-04 | 6.660E-02    |
| 2077 | 3.031E+05            | 2.059E-04 | 6.335E-02    |
| 2078 | 3.031E+05            | 1.958E-04 | 6.026E-02    |
| 2079 | 3.031E+05            | 1.863E-04 | 5.733E-02    |
| 2080 | 3.031E+05            | 1.772E-04 | 5.453E-02    |
| 2081 | 3.031E+05            | 1.685E-04 | 5.187E-02    |
| 2082 | 3.031E+05            | 1.603E-04 | 4.934E-02    |
| 2083 | 3.031E+05            | 1.525E-04 | 4.693E-02    |
| 2084 | 3.031E+05            | 1.451E-04 | 4.465E-02    |
| 2085 | 3.031E+05            | 1.380E-04 | 4.247E-02    |
| 2086 | 3.031E+05            | 1.313E-04 | 4.040E-02    |
| 2087 | 3.031E+05            | 1.249E-04 | 3.843E-02    |
| 2088 | 3.031E+05            | 1.188E-04 | 3.655E-02    |

continued

Table D-7. Emission Rate of Benzene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 1.130E-04 | 3.477E-02    |
| 2090 | 3.031E+05            | 1.075E-04 | 3.307E-02    |
| 2091 | 3.031E+05            | 1.022E-04 | 3.146E-02    |
| 2092 | 3.031E+05            | 9.724E-05 | 2.993E-02    |
| 2093 | 3.031E+05            | 9.250E-05 | 2.847E-02    |
| 2094 | 3.031E+05            | 8.799E-05 | 2.708E-02    |
| 2095 | 3.031E+05            | 8.369E-05 | 2.576E-02    |
| 2096 | 3.031E+05            | 7.961E-05 | 2.450E-02    |
| 2097 | 3.031E+05            | 7.573E-05 | 2.331E-02    |
| 2098 | 3.031E+05            | 7.204E-05 | 2.217E-02    |
| 2099 | 3.031E+05            | 6.852E-05 | 2.109E-02    |
| 2100 | 3.031E+05            | 6.518E-05 | 2.006E-02    |
| 2101 | 3.031E+05            | 6.200E-05 | 1.908E-02    |
| 2102 | 3.031E+05            | 5.898E-05 | 1.815E-02    |
| 2103 | 3.031E+05            | 5.610E-05 | 1.727E-02    |
| 2104 | 3.031E+05            | 5.337E-05 | 1.642E-02    |
| 2105 | 3.031E+05            | 5.076E-05 | 1.562E-02    |
| 2106 | 3.031E+05            | 4.829E-05 | 1.486E-02    |
| 2107 | 3.031E+05            | 4.593E-05 | 1.414E-02    |
| 2108 | 3.031E+05            | 4.369E-05 | 1.345E-02    |
| 2109 | 3.031E+05            | 4.156E-05 | 1.279E-02    |
| 2110 | 3.031E+05            | 3.953E-05 | 1.217E-02    |
| 2111 | 3.031E+05            | 3.761E-05 | 1.157E-02    |
| 2112 | 3.031E+05            | 3.577E-05 | 1.101E-02    |
| 2113 | 3.031E+05            | 3.403E-05 | 1.047E-02    |
| 2114 | 3.031E+05            | 3.237E-05 | 9.962E-03    |
| 2115 | 3.031E+05            | 3.079E-05 | 9.476E-03    |
| 2116 | 3.031E+05            | 2.929E-05 | 9.014E-03    |
| 2117 | 3.031E+05            | 2.786E-05 | 8.574E-03    |
| 2118 | 3.031E+05            | 2.650E-05 | 8.156E-03    |
| 2119 | 3.031E+05            | 2.521E-05 | 7.758E-03    |
| 2120 | 3.031E+05            | 2.398E-05 | 7.380E-03    |
| 2121 | 3.031E+05            | 2.281E-05 | 7.020E-03    |
| 2122 | 3.031E+05            | 2.170E-05 | 6.678E-03    |
| 2123 | 3.031E+05            | 2.064E-05 | 6.352E-03    |
| 2124 | 3.031E+05            | 1.963E-05 | 6.042E-03    |
| 2125 | 3.031E+05            | 1.867E-05 | 5.747E-03    |
| 2126 | 3.031E+05            | 1.776E-05 | 5.467E-03    |
| 2127 | 3.031E+05            | 1.690E-05 | 5.200E-03    |
| 2128 | 3.031E+05            | 1.607E-05 | 4.947E-03    |
| 2129 | 3.031E+05            | 1.529E-05 | 4.706E-03    |
| 2130 | 3.031E+05            | 1.454E-05 | 4.476E-03    |
| 2131 | 3.031E+05            | 1.383E-05 | 4.258E-03    |
| 2132 | 3.031E+05            | 1.316E-05 | 4.050E-03    |
| 2133 | 3.031E+05            | 1.252E-05 | 3.853E-03    |
| 2134 | 3.031E+05            | 1.191E-05 | 3.665E-03    |
| 2135 | 3.031E+05            | 1.133E-05 | 3.486E-03    |
| 2136 | 3.031E+05            | 1.077E-05 | 3.316E-03    |
| 2137 | 3.031E+05            | 1.025E-05 | 3.154E-03    |
| 2138 | 3.031E+05            | 9.749E-06 | 3.000E-03    |
| 2139 | 3.031E+05            | 9.274E-06 | 2.854E-03    |
| 2140 | 3.031E+05            | 8.821E-06 | 2.715E-03    |
| 2141 | 3.031E+05            | 8.391E-06 | 2.582E-03    |
| 2142 | 3.031E+05            | 7.982E-06 | 2.457E-03    |
| 2143 | 3.031E+05            | 7.593E-06 | 2.337E-03    |
| 2144 | 3.031E+05            | 7.222E-06 | 2.223E-03    |
| 2145 | 3.031E+05            | 6.870E-06 | 2.114E-03    |
| 2146 | 3.031E+05            | 6.535E-06 | 2.011E-03    |
| 2147 | 3.031E+05            | 6.216E-06 | 1.913E-03    |
| 2148 | 3.031E+05            | 5.913E-06 | 1.820E-03    |
| 2149 | 3.031E+05            | 5.625E-06 | 1.731E-03    |
| 2150 | 3.031E+05            | 5.350E-06 | 1.647E-03    |
| 2151 | 3.031E+05            | 5.089E-06 | 1.566E-03    |
| 2152 | 3.031E+05            | 4.841E-06 | 1.490E-03    |
| 2153 | 3.031E+05            | 4.605E-06 | 1.417E-03    |
| 2154 | 3.031E+05            | 4.381E-06 | 1.348E-03    |
| 2155 | 3.031E+05            | 4.167E-06 | 1.282E-03    |
| 2156 | 3.031E+05            | 3.964E-06 | 1.220E-03    |
| 2157 | 3.031E+05            | 3.770E-06 | 1.160E-03    |
| 2158 | 3.031E+05            | 3.586E-06 | 1.104E-03    |

continued

Table D-7. Emission Rate of Benzene from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 3.412E-06 | 1.050E-03    |
| 2160 | 3.031E+05            | 3.245E-06 | 9.988E-04    |
| 2161 | 3.031E+05            | 3.087E-06 | 9.500E-04    |
| 2162 | 3.031E+05            | 2.936E-06 | 9.037E-04    |
| 2163 | 3.031E+05            | 2.793E-06 | 8.596E-04    |
| 2164 | 3.031E+05            | 2.657E-06 | 8.177E-04    |
| 2165 | 3.031E+05            | 2.527E-06 | 7.778E-04    |
| 2166 | 3.031E+05            | 2.404E-06 | 7.399E-04    |
| 2167 | 3.031E+05            | 2.287E-06 | 7.038E-04    |
| 2168 | 3.031E+05            | 2.175E-06 | 6.695E-04    |
| 2169 | 3.031E+05            | 2.069E-06 | 6.368E-04    |
| 2170 | 3.031E+05            | 1.968E-06 | 6.058E-04    |
| 2171 | 3.031E+05            | 1.872E-06 | 5.762E-04    |
| 2172 | 3.031E+05            | 1.781E-06 | 5.481E-04    |
| 2173 | 3.031E+05            | 1.694E-06 | 5.214E-04    |
| 2174 | 3.031E+05            | 1.612E-06 | 4.960E-04    |
| 2175 | 3.031E+05            | 1.533E-06 | 4.718E-04    |
| 2176 | 3.031E+05            | 1.458E-06 | 4.488E-04    |
| 2177 | 3.031E+05            | 1.387E-06 | 4.269E-04    |
| 2178 | 3.031E+05            | 1.319E-06 | 4.061E-04    |
| 2179 | 3.031E+05            | 1.255E-06 | 3.863E-04    |
| 2180 | 3.031E+05            | 1.194E-06 | 3.674E-04    |
| 2181 | 3.031E+05            | 1.136E-06 | 3.495E-04    |
| 2182 | 3.031E+05            | 1.080E-06 | 3.325E-04    |
| 2183 | 3.031E+05            | 1.028E-06 | 3.162E-04    |
| 2184 | 3.031E+05            | 9.774E-07 | 3.008E-04    |
| 2185 | 3.031E+05            | 9.298E-07 | 2.861E-04    |
| 2186 | 3.031E+05            | 8.844E-07 | 2.722E-04    |
| 2187 | 3.031E+05            | 8.413E-07 | 2.589E-04    |
| 2188 | 3.031E+05            | 8.002E-07 | 2.463E-04    |
| 2189 | 3.031E+05            | 7.612E-07 | 2.343E-04    |
| 2190 | 3.031E+05            | 7.241E-07 | 2.229E-04    |
| 2191 | 3.031E+05            | 6.888E-07 | 2.120E-04    |
| 2192 | 3.031E+05            | 6.552E-07 | 2.016E-04    |
| 2193 | 3.031E+05            | 6.232E-07 | 1.918E-04    |
| 2194 | 3.031E+05            | 5.928E-07 | 1.825E-04    |
| 2195 | 3.031E+05            | 5.639E-07 | 1.736E-04    |
| 2196 | 3.031E+05            | 5.364E-07 | 1.651E-04    |
| 2197 | 3.031E+05            | 5.103E-07 | 1.570E-04    |
| 2198 | 3.031E+05            | 4.854E-07 | 1.494E-04    |
| 2199 | 3.031E+05            | 4.617E-07 | 1.421E-04    |
| 2200 | 3.031E+05            | 4.392E-07 | 1.352E-04    |
| 2201 | 3.031E+05            | 4.178E-07 | 1.286E-04    |
| 2202 | 3.031E+05            | 3.974E-07 | 1.223E-04    |
| 2203 | 3.031E+05            | 3.780E-07 | 1.163E-04    |

Table D-8. Emission Rate of Carbon Tetrachloride from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA1.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Carbon Tetrachloride (HAP/VOC)
Molecular Wt = 153.84      Concentration =      0.000000 ppmV
=====
                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
                          Model Results
=====
                          Carbon Tetrachloride (HAP/VOC) Emission Rate
Year      Refuse In Place (Mg)      (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      0.000E+00      0.000E+00
1976      6.063E+04      0.000E+00      0.000E+00
1977      9.094E+04      0.000E+00      0.000E+00
1978      1.213E+05      0.000E+00      0.000E+00
1979      1.516E+05      0.000E+00      0.000E+00
1980      1.819E+05      0.000E+00      0.000E+00
1981      2.122E+05      0.000E+00      0.000E+00
1982      2.425E+05      0.000E+00      0.000E+00
1983      2.728E+05      0.000E+00      0.000E+00
1984      3.031E+05      0.000E+00      0.000E+00
1985      3.031E+05      0.000E+00      0.000E+00
1986      3.031E+05      0.000E+00      0.000E+00
1987      3.031E+05      0.000E+00      0.000E+00
1988      3.031E+05      0.000E+00      0.000E+00
1989      3.031E+05      0.000E+00      0.000E+00
1990      3.031E+05      0.000E+00      0.000E+00
1991      3.031E+05      0.000E+00      0.000E+00
1992      3.031E+05      0.000E+00      0.000E+00
1993      3.031E+05      0.000E+00      0.000E+00
1994      3.031E+05      0.000E+00      0.000E+00
1995      3.031E+05      0.000E+00      0.000E+00
1996      3.031E+05      0.000E+00      0.000E+00
1997      3.031E+05      0.000E+00      0.000E+00
1998      3.031E+05      0.000E+00      0.000E+00
1999      3.031E+05      0.000E+00      0.000E+00
2000      3.031E+05      0.000E+00      0.000E+00
2001      3.031E+05      0.000E+00      0.000E+00
2002      3.031E+05      0.000E+00      0.000E+00
2003      3.031E+05      0.000E+00      0.000E+00
2004      3.031E+05      0.000E+00      0.000E+00
2005      3.031E+05      0.000E+00      0.000E+00
2006      3.031E+05      0.000E+00      0.000E+00
2007      3.031E+05      0.000E+00      0.000E+00
2008      3.031E+05      0.000E+00      0.000E+00
2009      3.031E+05      0.000E+00      0.000E+00
2010      3.031E+05      0.000E+00      0.000E+00
2011      3.031E+05      0.000E+00      0.000E+00
2012      3.031E+05      0.000E+00      0.000E+00
2013      3.031E+05      0.000E+00      0.000E+00
2014      3.031E+05      0.000E+00      0.000E+00
2015      3.031E+05      0.000E+00      0.000E+00
2016      3.031E+05      0.000E+00      0.000E+00
2017      3.031E+05      0.000E+00      0.000E+00
2018      3.031E+05      0.000E+00      0.000E+00
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continued

Table D-8. Emission Rate of Carbon Tetrachloride from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2020 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2021 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2022 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2023 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2024 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2025 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2026 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2027 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2028 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2029 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2030 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2031 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2032 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2033 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2034 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2035 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2036 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2037 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2038 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2039 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2040 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2041 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2042 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2043 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2044 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2045 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2046 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2047 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2048 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2049 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2050 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2051 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2052 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2053 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2054 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2055 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2056 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2057 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2058 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2059 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2060 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2061 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2062 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2063 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2064 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2065 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2066 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2067 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2068 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2069 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2070 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2071 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2072 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2073 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2074 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2075 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2076 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2077 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2078 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2079 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2080 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2081 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2082 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2083 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2084 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2085 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2086 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2087 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2088 | 3.031E+05            | 0.000E+00 | 0.000E+00    |

continued



Table D-8. Emission Rate of Carbon Tetrachloride from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2090 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2091 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2092 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2093 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2094 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2095 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2096 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2097 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2098 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2099 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2100 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2101 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2102 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2103 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2104 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2105 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2106 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2107 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2108 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2109 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2110 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2111 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2112 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2113 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2114 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2115 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2116 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2117 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2118 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2119 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2120 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2121 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2122 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2123 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2124 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2125 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2126 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2127 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2128 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2129 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2130 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2131 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2132 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2133 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2134 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2135 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2136 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2137 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2138 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2139 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2140 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2141 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2142 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2143 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2144 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2145 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2146 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2147 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2148 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2149 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2150 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2151 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2152 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2153 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2154 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2155 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2156 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2157 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2158 | 3.031E+05            | 0.000E+00 | 0.000E+00    |

continued

Table D-8. Emission Rate of Carbon Tetrachloride from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2160 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2161 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2162 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2163 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2164 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2165 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2166 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2167 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2168 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2169 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2170 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2171 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2172 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2173 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2174 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2175 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2176 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2177 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2178 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2179 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2180 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2181 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2182 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2183 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2184 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2185 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2186 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2187 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2188 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2189 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2190 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2191 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2192 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2193 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2194 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2195 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2196 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2197 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2198 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2199 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2200 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2201 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2202 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2203 | 3.031E+05            | 0.000E+00 | 0.000E+00    |

Table D-9. Emission Rate of Chlorobenzene from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA1.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Chlorobenzene (HAP/VOC)
Molecular Wt = 112.56      Concentration =      0.300000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      Chlorobenzene (HAP/VOC) Emission Rate
      (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      5.654E-04      1.208E-01
1976      6.063E+04      1.103E-03      2.357E-01
1977      9.094E+04      1.615E-03      3.449E-01
1978      1.213E+05      2.102E-03      4.489E-01
1979      1.516E+05      2.565E-03      5.478E-01
1980      1.819E+05      3.005E-03      6.418E-01
1981      2.122E+05      3.424E-03      7.313E-01
1982      2.425E+05      3.822E-03      8.164E-01
1983      2.728E+05      4.201E-03      8.974E-01
1984      3.031E+05      4.562E-03      9.744E-01
1985      3.031E+05      4.339E-03      9.269E-01
1986      3.031E+05      4.128E-03      8.817E-01
1987      3.031E+05      3.926E-03      8.387E-01
1988      3.031E+05      3.735E-03      7.978E-01
1989      3.031E+05      3.553E-03      7.589E-01
1990      3.031E+05      3.380E-03      7.219E-01
1991      3.031E+05      3.215E-03      6.867E-01
1992      3.031E+05      3.058E-03      6.532E-01
1993      3.031E+05      2.909E-03      6.213E-01
1994      3.031E+05      2.767E-03      5.910E-01
1995      3.031E+05      2.632E-03      5.622E-01
1996      3.031E+05      2.504E-03      5.348E-01
1997      3.031E+05      2.381E-03      5.087E-01
1998      3.031E+05      2.265E-03      4.839E-01
1999      3.031E+05      2.155E-03      4.603E-01
2000      3.031E+05      2.050E-03      4.378E-01
2001      3.031E+05      1.950E-03      4.165E-01
2002      3.031E+05      1.855E-03      3.962E-01
2003      3.031E+05      1.764E-03      3.768E-01
2004      3.031E+05      1.678E-03      3.585E-01
2005      3.031E+05      1.596E-03      3.410E-01
2006      3.031E+05      1.519E-03      3.244E-01
2007      3.031E+05      1.444E-03      3.085E-01
2008      3.031E+05      1.374E-03      2.935E-01
2009      3.031E+05      1.307E-03      2.792E-01
2010      3.031E+05      1.243E-03      2.656E-01
2011      3.031E+05      1.183E-03      2.526E-01
2012      3.031E+05      1.125E-03      2.403E-01
2013      3.031E+05      1.070E-03      2.286E-01
2014      3.031E+05      1.018E-03      2.174E-01
2015      3.031E+05      9.682E-04      2.068E-01
2016      3.031E+05      9.210E-04      1.967E-01
2017      3.031E+05      8.761E-04      1.871E-01
2018      3.031E+05      8.334E-04      1.780E-01

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continued

Table D-9. Emission Rate of Chlorobenzene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 7.927E-04 | 1.693E-01    |
| 2020 | 3.031E+05            | 7.541E-04 | 1.611E-01    |
| 2021 | 3.031E+05            | 7.173E-04 | 1.532E-01    |
| 2022 | 3.031E+05            | 6.823E-04 | 1.457E-01    |
| 2023 | 3.031E+05            | 6.490E-04 | 1.386E-01    |
| 2024 | 3.031E+05            | 6.174E-04 | 1.319E-01    |
| 2025 | 3.031E+05            | 5.873E-04 | 1.254E-01    |
| 2026 | 3.031E+05            | 5.586E-04 | 1.193E-01    |
| 2027 | 3.031E+05            | 5.314E-04 | 1.135E-01    |
| 2028 | 3.031E+05            | 5.055E-04 | 1.080E-01    |
| 2029 | 3.031E+05            | 4.808E-04 | 1.027E-01    |
| 2030 | 3.031E+05            | 4.574E-04 | 9.769E-02    |
| 2031 | 3.031E+05            | 4.351E-04 | 9.293E-02    |
| 2032 | 3.031E+05            | 4.138E-04 | 8.840E-02    |
| 2033 | 3.031E+05            | 3.937E-04 | 8.408E-02    |
| 2034 | 3.031E+05            | 3.745E-04 | 7.998E-02    |
| 2035 | 3.031E+05            | 3.562E-04 | 7.608E-02    |
| 2036 | 3.031E+05            | 3.388E-04 | 7.237E-02    |
| 2037 | 3.031E+05            | 3.223E-04 | 6.884E-02    |
| 2038 | 3.031E+05            | 3.066E-04 | 6.549E-02    |
| 2039 | 3.031E+05            | 2.916E-04 | 6.229E-02    |
| 2040 | 3.031E+05            | 2.774E-04 | 5.925E-02    |
| 2041 | 3.031E+05            | 2.639E-04 | 5.636E-02    |
| 2042 | 3.031E+05            | 2.510E-04 | 5.361E-02    |
| 2043 | 3.031E+05            | 2.388E-04 | 5.100E-02    |
| 2044 | 3.031E+05            | 2.271E-04 | 4.851E-02    |
| 2045 | 3.031E+05            | 2.160E-04 | 4.615E-02    |
| 2046 | 3.031E+05            | 2.055E-04 | 4.390E-02    |
| 2047 | 3.031E+05            | 1.955E-04 | 4.176E-02    |
| 2048 | 3.031E+05            | 1.860E-04 | 3.972E-02    |
| 2049 | 3.031E+05            | 1.769E-04 | 3.778E-02    |
| 2050 | 3.031E+05            | 1.683E-04 | 3.594E-02    |
| 2051 | 3.031E+05            | 1.600E-04 | 3.419E-02    |
| 2052 | 3.031E+05            | 1.522E-04 | 3.252E-02    |
| 2053 | 3.031E+05            | 1.448E-04 | 3.093E-02    |
| 2054 | 3.031E+05            | 1.378E-04 | 2.942E-02    |
| 2055 | 3.031E+05            | 1.310E-04 | 2.799E-02    |
| 2056 | 3.031E+05            | 1.246E-04 | 2.662E-02    |
| 2057 | 3.031E+05            | 1.186E-04 | 2.533E-02    |
| 2058 | 3.031E+05            | 1.128E-04 | 2.409E-02    |
| 2059 | 3.031E+05            | 1.073E-04 | 2.292E-02    |
| 2060 | 3.031E+05            | 1.021E-04 | 2.180E-02    |
| 2061 | 3.031E+05            | 9.708E-05 | 2.074E-02    |
| 2062 | 3.031E+05            | 9.234E-05 | 1.972E-02    |
| 2063 | 3.031E+05            | 8.784E-05 | 1.876E-02    |
| 2064 | 3.031E+05            | 8.355E-05 | 1.785E-02    |
| 2065 | 3.031E+05            | 7.948E-05 | 1.698E-02    |
| 2066 | 3.031E+05            | 7.560E-05 | 1.615E-02    |
| 2067 | 3.031E+05            | 7.192E-05 | 1.536E-02    |
| 2068 | 3.031E+05            | 6.841E-05 | 1.461E-02    |
| 2069 | 3.031E+05            | 6.507E-05 | 1.390E-02    |
| 2070 | 3.031E+05            | 6.190E-05 | 1.322E-02    |
| 2071 | 3.031E+05            | 5.888E-05 | 1.258E-02    |
| 2072 | 3.031E+05            | 5.601E-05 | 1.196E-02    |
| 2073 | 3.031E+05            | 5.328E-05 | 1.138E-02    |
| 2074 | 3.031E+05            | 5.068E-05 | 1.082E-02    |
| 2075 | 3.031E+05            | 4.821E-05 | 1.030E-02    |
| 2076 | 3.031E+05            | 4.586E-05 | 9.795E-03    |
| 2077 | 3.031E+05            | 4.362E-05 | 9.317E-03    |
| 2078 | 3.031E+05            | 4.149E-05 | 8.862E-03    |
| 2079 | 3.031E+05            | 3.947E-05 | 8.430E-03    |
| 2080 | 3.031E+05            | 3.754E-05 | 8.019E-03    |
| 2081 | 3.031E+05            | 3.571E-05 | 7.628E-03    |
| 2082 | 3.031E+05            | 3.397E-05 | 7.256E-03    |
| 2083 | 3.031E+05            | 3.231E-05 | 6.902E-03    |
| 2084 | 3.031E+05            | 3.074E-05 | 6.565E-03    |
| 2085 | 3.031E+05            | 2.924E-05 | 6.245E-03    |
| 2086 | 3.031E+05            | 2.781E-05 | 5.941E-03    |
| 2087 | 3.031E+05            | 2.646E-05 | 5.651E-03    |
| 2088 | 3.031E+05            | 2.517E-05 | 5.375E-03    |

continued

Table D-9. Emission Rate of Chlorobenzene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 2.394E-05 | 5.113E-03    |
| 2090 | 3.031E+05            | 2.277E-05 | 4.864E-03    |
| 2091 | 3.031E+05            | 2.166E-05 | 4.627E-03    |
| 2092 | 3.031E+05            | 2.060E-05 | 4.401E-03    |
| 2093 | 3.031E+05            | 1.960E-05 | 4.186E-03    |
| 2094 | 3.031E+05            | 1.864E-05 | 3.982E-03    |
| 2095 | 3.031E+05            | 1.773E-05 | 3.788E-03    |
| 2096 | 3.031E+05            | 1.687E-05 | 3.603E-03    |
| 2097 | 3.031E+05            | 1.605E-05 | 3.427E-03    |
| 2098 | 3.031E+05            | 1.526E-05 | 3.260E-03    |
| 2099 | 3.031E+05            | 1.452E-05 | 3.101E-03    |
| 2100 | 3.031E+05            | 1.381E-05 | 2.950E-03    |
| 2101 | 3.031E+05            | 1.314E-05 | 2.806E-03    |
| 2102 | 3.031E+05            | 1.250E-05 | 2.669E-03    |
| 2103 | 3.031E+05            | 1.189E-05 | 2.539E-03    |
| 2104 | 3.031E+05            | 1.131E-05 | 2.415E-03    |
| 2105 | 3.031E+05            | 1.076E-05 | 2.298E-03    |
| 2106 | 3.031E+05            | 1.023E-05 | 2.185E-03    |
| 2107 | 3.031E+05            | 9.733E-06 | 2.079E-03    |
| 2108 | 3.031E+05            | 9.258E-06 | 1.977E-03    |
| 2109 | 3.031E+05            | 8.806E-06 | 1.881E-03    |
| 2110 | 3.031E+05            | 8.377E-06 | 1.789E-03    |
| 2111 | 3.031E+05            | 7.968E-06 | 1.702E-03    |
| 2112 | 3.031E+05            | 7.580E-06 | 1.619E-03    |
| 2113 | 3.031E+05            | 7.210E-06 | 1.540E-03    |
| 2114 | 3.031E+05            | 6.858E-06 | 1.465E-03    |
| 2115 | 3.031E+05            | 6.524E-06 | 1.394E-03    |
| 2116 | 3.031E+05            | 6.206E-06 | 1.326E-03    |
| 2117 | 3.031E+05            | 5.903E-06 | 1.261E-03    |
| 2118 | 3.031E+05            | 5.615E-06 | 1.199E-03    |
| 2119 | 3.031E+05            | 5.341E-06 | 1.141E-03    |
| 2120 | 3.031E+05            | 5.081E-06 | 1.085E-03    |
| 2121 | 3.031E+05            | 4.833E-06 | 1.032E-03    |
| 2122 | 3.031E+05            | 4.597E-06 | 9.820E-04    |
| 2123 | 3.031E+05            | 4.373E-06 | 9.341E-04    |
| 2124 | 3.031E+05            | 4.160E-06 | 8.885E-04    |
| 2125 | 3.031E+05            | 3.957E-06 | 8.452E-04    |
| 2126 | 3.031E+05            | 3.764E-06 | 8.040E-04    |
| 2127 | 3.031E+05            | 3.580E-06 | 7.648E-04    |
| 2128 | 3.031E+05            | 3.406E-06 | 7.275E-04    |
| 2129 | 3.031E+05            | 3.240E-06 | 6.920E-04    |
| 2130 | 3.031E+05            | 3.082E-06 | 6.582E-04    |
| 2131 | 3.031E+05            | 2.931E-06 | 6.261E-04    |
| 2132 | 3.031E+05            | 2.788E-06 | 5.956E-04    |
| 2133 | 3.031E+05            | 2.652E-06 | 5.666E-04    |
| 2134 | 3.031E+05            | 2.523E-06 | 5.389E-04    |
| 2135 | 3.031E+05            | 2.400E-06 | 5.126E-04    |
| 2136 | 3.031E+05            | 2.283E-06 | 4.876E-04    |
| 2137 | 3.031E+05            | 2.172E-06 | 4.639E-04    |
| 2138 | 3.031E+05            | 2.066E-06 | 4.412E-04    |
| 2139 | 3.031E+05            | 1.965E-06 | 4.197E-04    |
| 2140 | 3.031E+05            | 1.869E-06 | 3.992E-04    |
| 2141 | 3.031E+05            | 1.778E-06 | 3.798E-04    |
| 2142 | 3.031E+05            | 1.691E-06 | 3.613E-04    |
| 2143 | 3.031E+05            | 1.609E-06 | 3.436E-04    |
| 2144 | 3.031E+05            | 1.530E-06 | 3.269E-04    |
| 2145 | 3.031E+05            | 1.456E-06 | 3.109E-04    |
| 2146 | 3.031E+05            | 1.385E-06 | 2.958E-04    |
| 2147 | 3.031E+05            | 1.317E-06 | 2.813E-04    |
| 2148 | 3.031E+05            | 1.253E-06 | 2.676E-04    |
| 2149 | 3.031E+05            | 1.192E-06 | 2.546E-04    |
| 2150 | 3.031E+05            | 1.134E-06 | 2.422E-04    |
| 2151 | 3.031E+05            | 1.078E-06 | 2.303E-04    |
| 2152 | 3.031E+05            | 1.026E-06 | 2.191E-04    |
| 2153 | 3.031E+05            | 9.758E-07 | 2.084E-04    |
| 2154 | 3.031E+05            | 9.282E-07 | 1.983E-04    |
| 2155 | 3.031E+05            | 8.829E-07 | 1.886E-04    |
| 2156 | 3.031E+05            | 8.399E-07 | 1.794E-04    |
| 2157 | 3.031E+05            | 7.989E-07 | 1.706E-04    |
| 2158 | 3.031E+05            | 7.599E-07 | 1.623E-04    |

continued

Table D-9. Emission Rate of Chlorobenzene from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 7.229E-07 | 1.544E-04    |
| 2160 | 3.031E+05            | 6.876E-07 | 1.469E-04    |
| 2161 | 3.031E+05            | 6.541E-07 | 1.397E-04    |
| 2162 | 3.031E+05            | 6.222E-07 | 1.329E-04    |
| 2163 | 3.031E+05            | 5.918E-07 | 1.264E-04    |
| 2164 | 3.031E+05            | 5.630E-07 | 1.203E-04    |
| 2165 | 3.031E+05            | 5.355E-07 | 1.144E-04    |
| 2166 | 3.031E+05            | 5.094E-07 | 1.088E-04    |
| 2167 | 3.031E+05            | 4.846E-07 | 1.035E-04    |
| 2168 | 3.031E+05            | 4.609E-07 | 9.845E-05    |
| 2169 | 3.031E+05            | 4.384E-07 | 9.365E-05    |
| 2170 | 3.031E+05            | 4.171E-07 | 8.908E-05    |
| 2171 | 3.031E+05            | 3.967E-07 | 8.474E-05    |
| 2172 | 3.031E+05            | 3.774E-07 | 8.061E-05    |
| 2173 | 3.031E+05            | 3.590E-07 | 7.668E-05    |
| 2174 | 3.031E+05            | 3.415E-07 | 7.294E-05    |
| 2175 | 3.031E+05            | 3.248E-07 | 6.938E-05    |
| 2176 | 3.031E+05            | 3.090E-07 | 6.600E-05    |
| 2177 | 3.031E+05            | 2.939E-07 | 6.278E-05    |
| 2178 | 3.031E+05            | 2.796E-07 | 5.971E-05    |
| 2179 | 3.031E+05            | 2.659E-07 | 5.680E-05    |
| 2180 | 3.031E+05            | 2.530E-07 | 5.403E-05    |
| 2181 | 3.031E+05            | 2.406E-07 | 5.140E-05    |
| 2182 | 3.031E+05            | 2.289E-07 | 4.889E-05    |
| 2183 | 3.031E+05            | 2.177E-07 | 4.651E-05    |
| 2184 | 3.031E+05            | 2.071E-07 | 4.424E-05    |
| 2185 | 3.031E+05            | 1.970E-07 | 4.208E-05    |
| 2186 | 3.031E+05            | 1.874E-07 | 4.003E-05    |
| 2187 | 3.031E+05            | 1.783E-07 | 3.808E-05    |
| 2188 | 3.031E+05            | 1.696E-07 | 3.622E-05    |
| 2189 | 3.031E+05            | 1.613E-07 | 3.445E-05    |
| 2190 | 3.031E+05            | 1.534E-07 | 3.277E-05    |
| 2191 | 3.031E+05            | 1.459E-07 | 3.117E-05    |
| 2192 | 3.031E+05            | 1.388E-07 | 2.965E-05    |
| 2193 | 3.031E+05            | 1.321E-07 | 2.821E-05    |
| 2194 | 3.031E+05            | 1.256E-07 | 2.683E-05    |
| 2195 | 3.031E+05            | 1.195E-07 | 2.552E-05    |
| 2196 | 3.031E+05            | 1.137E-07 | 2.428E-05    |
| 2197 | 3.031E+05            | 1.081E-07 | 2.309E-05    |
| 2198 | 3.031E+05            | 1.028E-07 | 2.197E-05    |
| 2199 | 3.031E+05            | 9.783E-08 | 2.090E-05    |
| 2200 | 3.031E+05            | 9.306E-08 | 1.988E-05    |
| 2201 | 3.031E+05            | 8.852E-08 | 1.891E-05    |
| 2202 | 3.031E+05            | 8.420E-08 | 1.799E-05    |
| 2203 | 3.031E+05            | 8.010E-08 | 1.711E-05    |

Table D-10. Emission Rate of Chloroethane from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA1.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Chloroethane (HAP/VOC)
Molecular Wt = 64.52      Concentration = 0.550000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      Chloroethane (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      5.942E-04      2.214E-01
1976      6.063E+04      1.159E-03      4.321E-01
1977      9.094E+04      1.697E-03      6.324E-01
1978      1.213E+05      2.209E-03      8.230E-01
1979      1.516E+05      2.695E-03      1.004E+00
1980      1.819E+05      3.158E-03      1.177E+00
1981      2.122E+05      3.598E-03      1.341E+00
1982      2.425E+05      4.017E-03      1.497E+00
1983      2.728E+05      4.415E-03      1.645E+00
1984      3.031E+05      4.794E-03      1.786E+00
1985      3.031E+05      4.560E-03      1.699E+00
1986      3.031E+05      4.338E-03      1.616E+00
1987      3.031E+05      4.126E-03      1.538E+00
1988      3.031E+05      3.925E-03      1.463E+00
1989      3.031E+05      3.734E-03      1.391E+00
1990      3.031E+05      3.551E-03      1.323E+00
1991      3.031E+05      3.378E-03      1.259E+00
1992      3.031E+05      3.213E-03      1.197E+00
1993      3.031E+05      3.057E-03      1.139E+00
1994      3.031E+05      2.908E-03      1.084E+00
1995      3.031E+05      2.766E-03      1.031E+00
1996      3.031E+05      2.631E-03      9.804E-01
1997      3.031E+05      2.503E-03      9.326E-01
1998      3.031E+05      2.381E-03      8.871E-01
1999      3.031E+05      2.265E-03      8.438E-01
2000      3.031E+05      2.154E-03      8.027E-01
2001      3.031E+05      2.049E-03      7.635E-01
2002      3.031E+05      1.949E-03      7.263E-01
2003      3.031E+05      1.854E-03      6.909E-01
2004      3.031E+05      1.764E-03      6.572E-01
2005      3.031E+05      1.678E-03      6.251E-01
2006      3.031E+05      1.596E-03      5.946E-01
2007      3.031E+05      1.518E-03      5.656E-01
2008      3.031E+05      1.444E-03      5.381E-01
2009      3.031E+05      1.373E-03      5.118E-01
2010      3.031E+05      1.307E-03      4.869E-01
2011      3.031E+05      1.243E-03      4.631E-01
2012      3.031E+05      1.182E-03      4.405E-01
2013      3.031E+05      1.125E-03      4.190E-01
2014      3.031E+05      1.070E-03      3.986E-01
2015      3.031E+05      1.018E-03      3.792E-01
2016      3.031E+05      9.679E-04      3.607E-01
2017      3.031E+05      9.207E-04      3.431E-01
2018      3.031E+05      8.758E-04      3.263E-01
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continued

Table D-10. Emission Rate of Chloroethane from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 8.331E-04 | 3.104E-01    |
| 2020 | 3.031E+05            | 7.924E-04 | 2.953E-01    |
| 2021 | 3.031E+05            | 7.538E-04 | 2.809E-01    |
| 2022 | 3.031E+05            | 7.170E-04 | 2.672E-01    |
| 2023 | 3.031E+05            | 6.821E-04 | 2.542E-01    |
| 2024 | 3.031E+05            | 6.488E-04 | 2.418E-01    |
| 2025 | 3.031E+05            | 6.171E-04 | 2.300E-01    |
| 2026 | 3.031E+05            | 5.870E-04 | 2.188E-01    |
| 2027 | 3.031E+05            | 5.584E-04 | 2.081E-01    |
| 2028 | 3.031E+05            | 5.312E-04 | 1.979E-01    |
| 2029 | 3.031E+05            | 5.053E-04 | 1.883E-01    |
| 2030 | 3.031E+05            | 4.806E-04 | 1.791E-01    |
| 2031 | 3.031E+05            | 4.572E-04 | 1.704E-01    |
| 2032 | 3.031E+05            | 4.349E-04 | 1.621E-01    |
| 2033 | 3.031E+05            | 4.137E-04 | 1.542E-01    |
| 2034 | 3.031E+05            | 3.935E-04 | 1.466E-01    |
| 2035 | 3.031E+05            | 3.743E-04 | 1.395E-01    |
| 2036 | 3.031E+05            | 3.561E-04 | 1.327E-01    |
| 2037 | 3.031E+05            | 3.387E-04 | 1.262E-01    |
| 2038 | 3.031E+05            | 3.222E-04 | 1.201E-01    |
| 2039 | 3.031E+05            | 3.065E-04 | 1.142E-01    |
| 2040 | 3.031E+05            | 2.915E-04 | 1.086E-01    |
| 2041 | 3.031E+05            | 2.773E-04 | 1.033E-01    |
| 2042 | 3.031E+05            | 2.638E-04 | 9.829E-02    |
| 2043 | 3.031E+05            | 2.509E-04 | 9.350E-02    |
| 2044 | 3.031E+05            | 2.387E-04 | 8.894E-02    |
| 2045 | 3.031E+05            | 2.270E-04 | 8.460E-02    |
| 2046 | 3.031E+05            | 2.160E-04 | 8.048E-02    |
| 2047 | 3.031E+05            | 2.054E-04 | 7.655E-02    |
| 2048 | 3.031E+05            | 1.954E-04 | 7.282E-02    |
| 2049 | 3.031E+05            | 1.859E-04 | 6.927E-02    |
| 2050 | 3.031E+05            | 1.768E-04 | 6.589E-02    |
| 2051 | 3.031E+05            | 1.682E-04 | 6.268E-02    |
| 2052 | 3.031E+05            | 1.600E-04 | 5.962E-02    |
| 2053 | 3.031E+05            | 1.522E-04 | 5.671E-02    |
| 2054 | 3.031E+05            | 1.448E-04 | 5.394E-02    |
| 2055 | 3.031E+05            | 1.377E-04 | 5.131E-02    |
| 2056 | 3.031E+05            | 1.310E-04 | 4.881E-02    |
| 2057 | 3.031E+05            | 1.246E-04 | 4.643E-02    |
| 2058 | 3.031E+05            | 1.185E-04 | 4.417E-02    |
| 2059 | 3.031E+05            | 1.127E-04 | 4.201E-02    |
| 2060 | 3.031E+05            | 1.072E-04 | 3.996E-02    |
| 2061 | 3.031E+05            | 1.020E-04 | 3.801E-02    |
| 2062 | 3.031E+05            | 9.704E-05 | 3.616E-02    |
| 2063 | 3.031E+05            | 9.231E-05 | 3.440E-02    |
| 2064 | 3.031E+05            | 8.780E-05 | 3.272E-02    |
| 2065 | 3.031E+05            | 8.352E-05 | 3.112E-02    |
| 2066 | 3.031E+05            | 7.945E-05 | 2.961E-02    |
| 2067 | 3.031E+05            | 7.557E-05 | 2.816E-02    |
| 2068 | 3.031E+05            | 7.189E-05 | 2.679E-02    |
| 2069 | 3.031E+05            | 6.838E-05 | 2.548E-02    |
| 2070 | 3.031E+05            | 6.505E-05 | 2.424E-02    |
| 2071 | 3.031E+05            | 6.187E-05 | 2.306E-02    |
| 2072 | 3.031E+05            | 5.886E-05 | 2.193E-02    |
| 2073 | 3.031E+05            | 5.599E-05 | 2.086E-02    |
| 2074 | 3.031E+05            | 5.326E-05 | 1.985E-02    |
| 2075 | 3.031E+05            | 5.066E-05 | 1.888E-02    |
| 2076 | 3.031E+05            | 4.819E-05 | 1.796E-02    |
| 2077 | 3.031E+05            | 4.584E-05 | 1.708E-02    |
| 2078 | 3.031E+05            | 4.360E-05 | 1.625E-02    |
| 2079 | 3.031E+05            | 4.148E-05 | 1.546E-02    |
| 2080 | 3.031E+05            | 3.945E-05 | 1.470E-02    |
| 2081 | 3.031E+05            | 3.753E-05 | 1.398E-02    |
| 2082 | 3.031E+05            | 3.570E-05 | 1.330E-02    |
| 2083 | 3.031E+05            | 3.396E-05 | 1.265E-02    |
| 2084 | 3.031E+05            | 3.230E-05 | 1.204E-02    |
| 2085 | 3.031E+05            | 3.073E-05 | 1.145E-02    |
| 2086 | 3.031E+05            | 2.923E-05 | 1.089E-02    |
| 2087 | 3.031E+05            | 2.780E-05 | 1.036E-02    |
| 2088 | 3.031E+05            | 2.645E-05 | 9.855E-03    |

continued



Table D-10. Emission Rate of Chloroethane from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 2.516E-05 | 9.374E-03    |
| 2090 | 3.031E+05            | 2.393E-05 | 8.917E-03    |
| 2091 | 3.031E+05            | 2.276E-05 | 8.482E-03    |
| 2092 | 3.031E+05            | 2.165E-05 | 8.068E-03    |
| 2093 | 3.031E+05            | 2.060E-05 | 7.675E-03    |
| 2094 | 3.031E+05            | 1.959E-05 | 7.301E-03    |
| 2095 | 3.031E+05            | 1.864E-05 | 6.945E-03    |
| 2096 | 3.031E+05            | 1.773E-05 | 6.606E-03    |
| 2097 | 3.031E+05            | 1.686E-05 | 6.284E-03    |
| 2098 | 3.031E+05            | 1.604E-05 | 5.977E-03    |
| 2099 | 3.031E+05            | 1.526E-05 | 5.686E-03    |
| 2100 | 3.031E+05            | 1.451E-05 | 5.408E-03    |
| 2101 | 3.031E+05            | 1.381E-05 | 5.145E-03    |
| 2102 | 3.031E+05            | 1.313E-05 | 4.894E-03    |
| 2103 | 3.031E+05            | 1.249E-05 | 4.655E-03    |
| 2104 | 3.031E+05            | 1.188E-05 | 4.428E-03    |
| 2105 | 3.031E+05            | 1.130E-05 | 4.212E-03    |
| 2106 | 3.031E+05            | 1.075E-05 | 4.007E-03    |
| 2107 | 3.031E+05            | 1.023E-05 | 3.811E-03    |
| 2108 | 3.031E+05            | 9.729E-06 | 3.625E-03    |
| 2109 | 3.031E+05            | 9.254E-06 | 3.449E-03    |
| 2110 | 3.031E+05            | 8.803E-06 | 3.280E-03    |
| 2111 | 3.031E+05            | 8.374E-06 | 3.120E-03    |
| 2112 | 3.031E+05            | 7.965E-06 | 2.968E-03    |
| 2113 | 3.031E+05            | 7.577E-06 | 2.823E-03    |
| 2114 | 3.031E+05            | 7.207E-06 | 2.686E-03    |
| 2115 | 3.031E+05            | 6.856E-06 | 2.555E-03    |
| 2116 | 3.031E+05            | 6.522E-06 | 2.430E-03    |
| 2117 | 3.031E+05            | 6.203E-06 | 2.312E-03    |
| 2118 | 3.031E+05            | 5.901E-06 | 2.199E-03    |
| 2119 | 3.031E+05            | 5.613E-06 | 2.092E-03    |
| 2120 | 3.031E+05            | 5.339E-06 | 1.990E-03    |
| 2121 | 3.031E+05            | 5.079E-06 | 1.893E-03    |
| 2122 | 3.031E+05            | 4.831E-06 | 1.800E-03    |
| 2123 | 3.031E+05            | 4.596E-06 | 1.713E-03    |
| 2124 | 3.031E+05            | 4.372E-06 | 1.629E-03    |
| 2125 | 3.031E+05            | 4.158E-06 | 1.550E-03    |
| 2126 | 3.031E+05            | 3.956E-06 | 1.474E-03    |
| 2127 | 3.031E+05            | 3.763E-06 | 1.402E-03    |
| 2128 | 3.031E+05            | 3.579E-06 | 1.334E-03    |
| 2129 | 3.031E+05            | 3.405E-06 | 1.269E-03    |
| 2130 | 3.031E+05            | 3.238E-06 | 1.207E-03    |
| 2131 | 3.031E+05            | 3.081E-06 | 1.148E-03    |
| 2132 | 3.031E+05            | 2.930E-06 | 1.092E-03    |
| 2133 | 3.031E+05            | 2.787E-06 | 1.039E-03    |
| 2134 | 3.031E+05            | 2.651E-06 | 9.880E-04    |
| 2135 | 3.031E+05            | 2.522E-06 | 9.398E-04    |
| 2136 | 3.031E+05            | 2.399E-06 | 8.940E-04    |
| 2137 | 3.031E+05            | 2.282E-06 | 8.504E-04    |
| 2138 | 3.031E+05            | 2.171E-06 | 8.089E-04    |
| 2139 | 3.031E+05            | 2.065E-06 | 7.695E-04    |
| 2140 | 3.031E+05            | 1.964E-06 | 7.320E-04    |
| 2141 | 3.031E+05            | 1.868E-06 | 6.963E-04    |
| 2142 | 3.031E+05            | 1.777E-06 | 6.623E-04    |
| 2143 | 3.031E+05            | 1.691E-06 | 6.300E-04    |
| 2144 | 3.031E+05            | 1.608E-06 | 5.993E-04    |
| 2145 | 3.031E+05            | 1.530E-06 | 5.700E-04    |
| 2146 | 3.031E+05            | 1.455E-06 | 5.422E-04    |
| 2147 | 3.031E+05            | 1.384E-06 | 5.158E-04    |
| 2148 | 3.031E+05            | 1.317E-06 | 4.906E-04    |
| 2149 | 3.031E+05            | 1.252E-06 | 4.667E-04    |
| 2150 | 3.031E+05            | 1.191E-06 | 4.440E-04    |
| 2151 | 3.031E+05            | 1.133E-06 | 4.223E-04    |
| 2152 | 3.031E+05            | 1.078E-06 | 4.017E-04    |
| 2153 | 3.031E+05            | 1.025E-06 | 3.821E-04    |
| 2154 | 3.031E+05            | 9.754E-07 | 3.635E-04    |
| 2155 | 3.031E+05            | 9.278E-07 | 3.458E-04    |
| 2156 | 3.031E+05            | 8.826E-07 | 3.289E-04    |
| 2157 | 3.031E+05            | 8.395E-07 | 3.128E-04    |
| 2158 | 3.031E+05            | 7.986E-07 | 2.976E-04    |

continued

Table D-10. Emission Rate of Chloroethane from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 7.597E-07 | 2.831E-04    |
| 2160 | 3.031E+05            | 7.226E-07 | 2.693E-04    |
| 2161 | 3.031E+05            | 6.874E-07 | 2.561E-04    |
| 2162 | 3.031E+05            | 6.538E-07 | 2.436E-04    |
| 2163 | 3.031E+05            | 6.220E-07 | 2.318E-04    |
| 2164 | 3.031E+05            | 5.916E-07 | 2.205E-04    |
| 2165 | 3.031E+05            | 5.628E-07 | 2.097E-04    |
| 2166 | 3.031E+05            | 5.353E-07 | 1.995E-04    |
| 2167 | 3.031E+05            | 5.092E-07 | 1.898E-04    |
| 2168 | 3.031E+05            | 4.844E-07 | 1.805E-04    |
| 2169 | 3.031E+05            | 4.608E-07 | 1.717E-04    |
| 2170 | 3.031E+05            | 4.383E-07 | 1.633E-04    |
| 2171 | 3.031E+05            | 4.169E-07 | 1.554E-04    |
| 2172 | 3.031E+05            | 3.966E-07 | 1.478E-04    |
| 2173 | 3.031E+05            | 3.772E-07 | 1.406E-04    |
| 2174 | 3.031E+05            | 3.588E-07 | 1.337E-04    |
| 2175 | 3.031E+05            | 3.413E-07 | 1.272E-04    |
| 2176 | 3.031E+05            | 3.247E-07 | 1.210E-04    |
| 2177 | 3.031E+05            | 3.089E-07 | 1.151E-04    |
| 2178 | 3.031E+05            | 2.938E-07 | 1.095E-04    |
| 2179 | 3.031E+05            | 2.795E-07 | 1.041E-04    |
| 2180 | 3.031E+05            | 2.658E-07 | 9.906E-05    |
| 2181 | 3.031E+05            | 2.529E-07 | 9.423E-05    |
| 2182 | 3.031E+05            | 2.405E-07 | 8.963E-05    |
| 2183 | 3.031E+05            | 2.288E-07 | 8.526E-05    |
| 2184 | 3.031E+05            | 2.176E-07 | 8.110E-05    |
| 2185 | 3.031E+05            | 2.070E-07 | 7.715E-05    |
| 2186 | 3.031E+05            | 1.969E-07 | 7.338E-05    |
| 2187 | 3.031E+05            | 1.873E-07 | 6.981E-05    |
| 2188 | 3.031E+05            | 1.782E-07 | 6.640E-05    |
| 2189 | 3.031E+05            | 1.695E-07 | 6.316E-05    |
| 2190 | 3.031E+05            | 1.612E-07 | 6.008E-05    |
| 2191 | 3.031E+05            | 1.534E-07 | 5.715E-05    |
| 2192 | 3.031E+05            | 1.459E-07 | 5.436E-05    |
| 2193 | 3.031E+05            | 1.388E-07 | 5.171E-05    |
| 2194 | 3.031E+05            | 1.320E-07 | 4.919E-05    |
| 2195 | 3.031E+05            | 1.256E-07 | 4.679E-05    |
| 2196 | 3.031E+05            | 1.194E-07 | 4.451E-05    |
| 2197 | 3.031E+05            | 1.136E-07 | 4.234E-05    |
| 2198 | 3.031E+05            | 1.081E-07 | 4.027E-05    |
| 2199 | 3.031E+05            | 1.028E-07 | 3.831E-05    |
| 2200 | 3.031E+05            | 9.779E-08 | 3.644E-05    |
| 2201 | 3.031E+05            | 9.302E-08 | 3.466E-05    |
| 2202 | 3.031E+05            | 8.849E-08 | 3.297E-05    |
| 2203 | 3.031E+05            | 8.417E-08 | 3.137E-05    |

Table D-11. Emission Rate of Chloroform from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177-2.000\030177-1.003\BUSHVA~1\STRATA1.PRM

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=====
                        Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Chloroform (HAP/VOC)
Molecular Wt = 119.38      Concentration =      0.000000 ppmV
=====

                        Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                        Model Results
=====
Year      Refuse In Place (Mg)      Chloroform (HAP/VOC) Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      0.000E+00      0.000E+00
1976      6.063E+04      0.000E+00      0.000E+00
1977      9.094E+04      0.000E+00      0.000E+00
1978      1.213E+05      0.000E+00      0.000E+00
1979      1.516E+05      0.000E+00      0.000E+00
1980      1.819E+05      0.000E+00      0.000E+00
1981      2.122E+05      0.000E+00      0.000E+00
1982      2.425E+05      0.000E+00      0.000E+00
1983      2.728E+05      0.000E+00      0.000E+00
1984      3.031E+05      0.000E+00      0.000E+00
1985      3.031E+05      0.000E+00      0.000E+00
1986      3.031E+05      0.000E+00      0.000E+00
1987      3.031E+05      0.000E+00      0.000E+00
1988      3.031E+05      0.000E+00      0.000E+00
1989      3.031E+05      0.000E+00      0.000E+00
1990      3.031E+05      0.000E+00      0.000E+00
1991      3.031E+05      0.000E+00      0.000E+00
1992      3.031E+05      0.000E+00      0.000E+00
1993      3.031E+05      0.000E+00      0.000E+00
1994      3.031E+05      0.000E+00      0.000E+00
1995      3.031E+05      0.000E+00      0.000E+00
1996      3.031E+05      0.000E+00      0.000E+00
1997      3.031E+05      0.000E+00      0.000E+00
1998      3.031E+05      0.000E+00      0.000E+00
1999      3.031E+05      0.000E+00      0.000E+00
2000      3.031E+05      0.000E+00      0.000E+00
2001      3.031E+05      0.000E+00      0.000E+00
2002      3.031E+05      0.000E+00      0.000E+00
2003      3.031E+05      0.000E+00      0.000E+00
2004      3.031E+05      0.000E+00      0.000E+00
2005      3.031E+05      0.000E+00      0.000E+00
2006      3.031E+05      0.000E+00      0.000E+00
2007      3.031E+05      0.000E+00      0.000E+00
2008      3.031E+05      0.000E+00      0.000E+00
2009      3.031E+05      0.000E+00      0.000E+00
2010      3.031E+05      0.000E+00      0.000E+00
2011      3.031E+05      0.000E+00      0.000E+00
2012      3.031E+05      0.000E+00      0.000E+00
2013      3.031E+05      0.000E+00      0.000E+00
2014      3.031E+05      0.000E+00      0.000E+00
2015      3.031E+05      0.000E+00      0.000E+00
2016      3.031E+05      0.000E+00      0.000E+00
2017      3.031E+05      0.000E+00      0.000E+00
2018      3.031E+05      0.000E+00      0.000E+00
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continued

Table D-11. Emission Rate of Chloroform from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2020 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2021 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2022 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2023 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2024 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2025 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2026 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2027 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2028 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2029 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2030 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2031 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2032 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2033 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2034 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2035 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2036 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2037 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2038 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2039 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2040 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2041 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2042 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2043 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2044 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2045 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2046 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2047 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2048 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2049 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2050 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2051 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2052 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2053 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2054 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2055 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2056 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2057 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2058 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2059 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2060 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2061 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2062 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2063 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2064 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2065 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2066 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2067 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2068 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2069 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2070 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2071 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2072 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2073 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2074 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2075 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2076 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2077 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2078 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2079 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2080 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2081 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2082 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2083 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2084 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2085 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2086 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2087 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2088 | 3.031E+05            | 0.000E+00 | 0.000E+00    |

continued

Table D-11. Emission Rate of Chloroform from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2090 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2091 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2092 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2093 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2094 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2095 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2096 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2097 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2098 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2099 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2100 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2101 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2102 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2103 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2104 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2105 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2106 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2107 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2108 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2109 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2110 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2111 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2112 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2113 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2114 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2115 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2116 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2117 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2118 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2119 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2120 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2121 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2122 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2123 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2124 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2125 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2126 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2127 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2128 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2129 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2130 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2131 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2132 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2133 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2134 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2135 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2136 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2137 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2138 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2139 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2140 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2141 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2142 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2143 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2144 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2145 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2146 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2147 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2148 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2149 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2150 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2151 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2152 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2153 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2154 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2155 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2156 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2157 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2158 | 3.031E+05            | 0.000E+00 | 0.000E+00    |

continued

Table D-11. Emission Rate of Chloroform from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2160 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2161 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2162 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2163 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2164 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2165 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2166 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2167 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2168 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2169 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2170 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2171 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2172 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2173 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2174 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2175 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2176 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2177 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2178 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2179 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2180 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2181 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2182 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2183 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2184 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2185 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2186 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2187 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2188 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2189 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2190 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2191 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2192 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2193 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2194 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2195 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2196 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2197 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2198 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2199 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2200 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2201 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2202 | 3.031E+05            | 0.000E+00 | 0.000E+00    |
| 2203 | 3.031E+05            | 0.000E+00 | 0.000E+00    |

Table D-12. Emission Rate of 1,4-Dichlorobenzene from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA1.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Dichlorobenzene (VOC/HAP for 1,4 isomer)
Molecular Wt = 147.00      Concentration =      0.280000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                          Model Results
=====
                          Dichlorobenzene (VOC/HAP for 1,4 isomer) Emission R
Year      Refuse In Place (Mg)      (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      6.892E-04      1.127E-01
1976      6.063E+04      1.345E-03      2.200E-01
1977      9.094E+04      1.968E-03      3.220E-01
1978      1.213E+05      2.562E-03      4.190E-01
1979      1.516E+05      3.126E-03      5.113E-01
1980      1.819E+05      3.663E-03      5.991E-01
1981      2.122E+05      4.173E-03      6.826E-01
1982      2.425E+05      4.659E-03      7.620E-01
1983      2.728E+05      5.121E-03      8.376E-01
1984      3.031E+05      5.560E-03      9.094E-01
1985      3.031E+05      5.289E-03      8.651E-01
1986      3.031E+05      5.031E-03      8.229E-01
1987      3.031E+05      4.786E-03      7.828E-01
1988      3.031E+05      4.553E-03      7.446E-01
1989      3.031E+05      4.331E-03      7.083E-01
1990      3.031E+05      4.119E-03      6.737E-01
1991      3.031E+05      3.918E-03      6.409E-01
1992      3.031E+05      3.727E-03      6.096E-01
1993      3.031E+05      3.546E-03      5.799E-01
1994      3.031E+05      3.373E-03      5.516E-01
1995      3.031E+05      3.208E-03      5.247E-01
1996      3.031E+05      3.052E-03      4.991E-01
1997      3.031E+05      2.903E-03      4.748E-01
1998      3.031E+05      2.761E-03      4.516E-01
1999      3.031E+05      2.627E-03      4.296E-01
2000      3.031E+05      2.498E-03      4.086E-01
2001      3.031E+05      2.377E-03      3.887E-01
2002      3.031E+05      2.261E-03      3.698E-01
2003      3.031E+05      2.150E-03      3.517E-01
2004      3.031E+05      2.046E-03      3.346E-01
2005      3.031E+05      1.946E-03      3.182E-01
2006      3.031E+05      1.851E-03      3.027E-01
2007      3.031E+05      1.761E-03      2.880E-01
2008      3.031E+05      1.675E-03      2.739E-01
2009      3.031E+05      1.593E-03      2.606E-01
2010      3.031E+05      1.515E-03      2.479E-01
2011      3.031E+05      1.441E-03      2.358E-01
2012      3.031E+05      1.371E-03      2.243E-01
2013      3.031E+05      1.304E-03      2.133E-01
2014      3.031E+05      1.241E-03      2.029E-01
2015      3.031E+05      1.180E-03      1.930E-01
2016      3.031E+05      1.123E-03      1.836E-01
2017      3.031E+05      1.068E-03      1.747E-01
2018      3.031E+05      1.016E-03      1.661E-01
=====

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continued

Table D-12. Emission Rate of 1,4-Dichlorobenzene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 9.663E-04 | 1.580E-01    |
| 2020 | 3.031E+05            | 9.191E-04 | 1.503E-01    |
| 2021 | 3.031E+05            | 8.743E-04 | 1.430E-01    |
| 2022 | 3.031E+05            | 8.317E-04 | 1.360E-01    |
| 2023 | 3.031E+05            | 7.911E-04 | 1.294E-01    |
| 2024 | 3.031E+05            | 7.525E-04 | 1.231E-01    |
| 2025 | 3.031E+05            | 7.158E-04 | 1.171E-01    |
| 2026 | 3.031E+05            | 6.809E-04 | 1.114E-01    |
| 2027 | 3.031E+05            | 6.477E-04 | 1.059E-01    |
| 2028 | 3.031E+05            | 6.161E-04 | 1.008E-01    |
| 2029 | 3.031E+05            | 5.861E-04 | 9.585E-02    |
| 2030 | 3.031E+05            | 5.575E-04 | 9.118E-02    |
| 2031 | 3.031E+05            | 5.303E-04 | 8.673E-02    |
| 2032 | 3.031E+05            | 5.044E-04 | 8.250E-02    |
| 2033 | 3.031E+05            | 4.798E-04 | 7.848E-02    |
| 2034 | 3.031E+05            | 4.564E-04 | 7.465E-02    |
| 2035 | 3.031E+05            | 4.342E-04 | 7.101E-02    |
| 2036 | 3.031E+05            | 4.130E-04 | 6.755E-02    |
| 2037 | 3.031E+05            | 3.929E-04 | 6.425E-02    |
| 2038 | 3.031E+05            | 3.737E-04 | 6.112E-02    |
| 2039 | 3.031E+05            | 3.555E-04 | 5.814E-02    |
| 2040 | 3.031E+05            | 3.381E-04 | 5.530E-02    |
| 2041 | 3.031E+05            | 3.216E-04 | 5.261E-02    |
| 2042 | 3.031E+05            | 3.060E-04 | 5.004E-02    |
| 2043 | 3.031E+05            | 2.910E-04 | 4.760E-02    |
| 2044 | 3.031E+05            | 2.768E-04 | 4.528E-02    |
| 2045 | 3.031E+05            | 2.633E-04 | 4.307E-02    |
| 2046 | 3.031E+05            | 2.505E-04 | 4.097E-02    |
| 2047 | 3.031E+05            | 2.383E-04 | 3.897E-02    |
| 2048 | 3.031E+05            | 2.267E-04 | 3.707E-02    |
| 2049 | 3.031E+05            | 2.156E-04 | 3.526E-02    |
| 2050 | 3.031E+05            | 2.051E-04 | 3.354E-02    |
| 2051 | 3.031E+05            | 1.951E-04 | 3.191E-02    |
| 2052 | 3.031E+05            | 1.856E-04 | 3.035E-02    |
| 2053 | 3.031E+05            | 1.765E-04 | 2.887E-02    |
| 2054 | 3.031E+05            | 1.679E-04 | 2.746E-02    |
| 2055 | 3.031E+05            | 1.597E-04 | 2.612E-02    |
| 2056 | 3.031E+05            | 1.519E-04 | 2.485E-02    |
| 2057 | 3.031E+05            | 1.445E-04 | 2.364E-02    |
| 2058 | 3.031E+05            | 1.375E-04 | 2.248E-02    |
| 2059 | 3.031E+05            | 1.308E-04 | 2.139E-02    |
| 2060 | 3.031E+05            | 1.244E-04 | 2.034E-02    |
| 2061 | 3.031E+05            | 1.183E-04 | 1.935E-02    |
| 2062 | 3.031E+05            | 1.126E-04 | 1.841E-02    |
| 2063 | 3.031E+05            | 1.071E-04 | 1.751E-02    |
| 2064 | 3.031E+05            | 1.018E-04 | 1.666E-02    |
| 2065 | 3.031E+05            | 9.688E-05 | 1.584E-02    |
| 2066 | 3.031E+05            | 9.215E-05 | 1.507E-02    |
| 2067 | 3.031E+05            | 8.766E-05 | 1.434E-02    |
| 2068 | 3.031E+05            | 8.338E-05 | 1.364E-02    |
| 2069 | 3.031E+05            | 7.932E-05 | 1.297E-02    |
| 2070 | 3.031E+05            | 7.545E-05 | 1.234E-02    |
| 2071 | 3.031E+05            | 7.177E-05 | 1.174E-02    |
| 2072 | 3.031E+05            | 6.827E-05 | 1.117E-02    |
| 2073 | 3.031E+05            | 6.494E-05 | 1.062E-02    |
| 2074 | 3.031E+05            | 6.177E-05 | 1.010E-02    |
| 2075 | 3.031E+05            | 5.876E-05 | 9.610E-03    |
| 2076 | 3.031E+05            | 5.589E-05 | 9.142E-03    |
| 2077 | 3.031E+05            | 5.317E-05 | 8.696E-03    |
| 2078 | 3.031E+05            | 5.057E-05 | 8.272E-03    |
| 2079 | 3.031E+05            | 4.811E-05 | 7.868E-03    |
| 2080 | 3.031E+05            | 4.576E-05 | 7.485E-03    |
| 2081 | 3.031E+05            | 4.353E-05 | 7.119E-03    |
| 2082 | 3.031E+05            | 4.141E-05 | 6.772E-03    |
| 2083 | 3.031E+05            | 3.939E-05 | 6.442E-03    |
| 2084 | 3.031E+05            | 3.747E-05 | 6.128E-03    |
| 2085 | 3.031E+05            | 3.564E-05 | 5.829E-03    |
| 2086 | 3.031E+05            | 3.390E-05 | 5.545E-03    |
| 2087 | 3.031E+05            | 3.225E-05 | 5.274E-03    |
| 2088 | 3.031E+05            | 3.067E-05 | 5.017E-03    |

continued



Table D-12. Emission Rate of 1,4-Dichlorobenzene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 2.918E-05 | 4.772E-03    |
| 2090 | 3.031E+05            | 2.776E-05 | 4.540E-03    |
| 2091 | 3.031E+05            | 2.640E-05 | 4.318E-03    |
| 2092 | 3.031E+05            | 2.511E-05 | 4.108E-03    |
| 2093 | 3.031E+05            | 2.389E-05 | 3.907E-03    |
| 2094 | 3.031E+05            | 2.272E-05 | 3.717E-03    |
| 2095 | 3.031E+05            | 2.162E-05 | 3.535E-03    |
| 2096 | 3.031E+05            | 2.056E-05 | 3.363E-03    |
| 2097 | 3.031E+05            | 1.956E-05 | 3.199E-03    |
| 2098 | 3.031E+05            | 1.861E-05 | 3.043E-03    |
| 2099 | 3.031E+05            | 1.770E-05 | 2.895E-03    |
| 2100 | 3.031E+05            | 1.683E-05 | 2.753E-03    |
| 2101 | 3.031E+05            | 1.601E-05 | 2.619E-03    |
| 2102 | 3.031E+05            | 1.523E-05 | 2.491E-03    |
| 2103 | 3.031E+05            | 1.449E-05 | 2.370E-03    |
| 2104 | 3.031E+05            | 1.378E-05 | 2.254E-03    |
| 2105 | 3.031E+05            | 1.311E-05 | 2.144E-03    |
| 2106 | 3.031E+05            | 1.247E-05 | 2.040E-03    |
| 2107 | 3.031E+05            | 1.186E-05 | 1.940E-03    |
| 2108 | 3.031E+05            | 1.128E-05 | 1.846E-03    |
| 2109 | 3.031E+05            | 1.073E-05 | 1.756E-03    |
| 2110 | 3.031E+05            | 1.021E-05 | 1.670E-03    |
| 2111 | 3.031E+05            | 9.713E-06 | 1.589E-03    |
| 2112 | 3.031E+05            | 9.239E-06 | 1.511E-03    |
| 2113 | 3.031E+05            | 8.788E-06 | 1.437E-03    |
| 2114 | 3.031E+05            | 8.360E-06 | 1.367E-03    |
| 2115 | 3.031E+05            | 7.952E-06 | 1.301E-03    |
| 2116 | 3.031E+05            | 7.564E-06 | 1.237E-03    |
| 2117 | 3.031E+05            | 7.195E-06 | 1.177E-03    |
| 2118 | 3.031E+05            | 6.844E-06 | 1.119E-03    |
| 2119 | 3.031E+05            | 6.511E-06 | 1.065E-03    |
| 2120 | 3.031E+05            | 6.193E-06 | 1.013E-03    |
| 2121 | 3.031E+05            | 5.891E-06 | 9.635E-04    |
| 2122 | 3.031E+05            | 5.604E-06 | 9.165E-04    |
| 2123 | 3.031E+05            | 5.330E-06 | 8.718E-04    |
| 2124 | 3.031E+05            | 5.070E-06 | 8.293E-04    |
| 2125 | 3.031E+05            | 4.823E-06 | 7.889E-04    |
| 2126 | 3.031E+05            | 4.588E-06 | 7.504E-04    |
| 2127 | 3.031E+05            | 4.364E-06 | 7.138E-04    |
| 2128 | 3.031E+05            | 4.151E-06 | 6.790E-04    |
| 2129 | 3.031E+05            | 3.949E-06 | 6.459E-04    |
| 2130 | 3.031E+05            | 3.756E-06 | 6.144E-04    |
| 2131 | 3.031E+05            | 3.573E-06 | 5.844E-04    |
| 2132 | 3.031E+05            | 3.399E-06 | 5.559E-04    |
| 2133 | 3.031E+05            | 3.233E-06 | 5.288E-04    |
| 2134 | 3.031E+05            | 3.075E-06 | 5.030E-04    |
| 2135 | 3.031E+05            | 2.925E-06 | 4.785E-04    |
| 2136 | 3.031E+05            | 2.783E-06 | 4.551E-04    |
| 2137 | 3.031E+05            | 2.647E-06 | 4.329E-04    |
| 2138 | 3.031E+05            | 2.518E-06 | 4.118E-04    |
| 2139 | 3.031E+05            | 2.395E-06 | 3.917E-04    |
| 2140 | 3.031E+05            | 2.278E-06 | 3.726E-04    |
| 2141 | 3.031E+05            | 2.167E-06 | 3.545E-04    |
| 2142 | 3.031E+05            | 2.062E-06 | 3.372E-04    |
| 2143 | 3.031E+05            | 1.961E-06 | 3.207E-04    |
| 2144 | 3.031E+05            | 1.865E-06 | 3.051E-04    |
| 2145 | 3.031E+05            | 1.774E-06 | 2.902E-04    |
| 2146 | 3.031E+05            | 1.688E-06 | 2.761E-04    |
| 2147 | 3.031E+05            | 1.606E-06 | 2.626E-04    |
| 2148 | 3.031E+05            | 1.527E-06 | 2.498E-04    |
| 2149 | 3.031E+05            | 1.453E-06 | 2.376E-04    |
| 2150 | 3.031E+05            | 1.382E-06 | 2.260E-04    |
| 2151 | 3.031E+05            | 1.314E-06 | 2.150E-04    |
| 2152 | 3.031E+05            | 1.250E-06 | 2.045E-04    |
| 2153 | 3.031E+05            | 1.189E-06 | 1.945E-04    |
| 2154 | 3.031E+05            | 1.131E-06 | 1.850E-04    |
| 2155 | 3.031E+05            | 1.076E-06 | 1.760E-04    |
| 2156 | 3.031E+05            | 1.024E-06 | 1.674E-04    |
| 2157 | 3.031E+05            | 9.738E-07 | 1.593E-04    |
| 2158 | 3.031E+05            | 9.263E-07 | 1.515E-04    |

continued

Table D-12. Emission Rate of 1,4-Dichlorobenzene from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 8.811E-07 | 1.441E-04    |
| 2160 | 3.031E+05            | 8.381E-07 | 1.371E-04    |
| 2161 | 3.031E+05            | 7.973E-07 | 1.304E-04    |
| 2162 | 3.031E+05            | 7.584E-07 | 1.240E-04    |
| 2163 | 3.031E+05            | 7.214E-07 | 1.180E-04    |
| 2164 | 3.031E+05            | 6.862E-07 | 1.122E-04    |
| 2165 | 3.031E+05            | 6.527E-07 | 1.068E-04    |
| 2166 | 3.031E+05            | 6.209E-07 | 1.016E-04    |
| 2167 | 3.031E+05            | 5.906E-07 | 9.660E-05    |
| 2168 | 3.031E+05            | 5.618E-07 | 9.189E-05    |
| 2169 | 3.031E+05            | 5.344E-07 | 8.741E-05    |
| 2170 | 3.031E+05            | 5.084E-07 | 8.315E-05    |
| 2171 | 3.031E+05            | 4.836E-07 | 7.909E-05    |
| 2172 | 3.031E+05            | 4.600E-07 | 7.523E-05    |
| 2173 | 3.031E+05            | 4.376E-07 | 7.156E-05    |
| 2174 | 3.031E+05            | 4.162E-07 | 6.807E-05    |
| 2175 | 3.031E+05            | 3.959E-07 | 6.475E-05    |
| 2176 | 3.031E+05            | 3.766E-07 | 6.160E-05    |
| 2177 | 3.031E+05            | 3.582E-07 | 5.859E-05    |
| 2178 | 3.031E+05            | 3.408E-07 | 5.573E-05    |
| 2179 | 3.031E+05            | 3.241E-07 | 5.302E-05    |
| 2180 | 3.031E+05            | 3.083E-07 | 5.043E-05    |
| 2181 | 3.031E+05            | 2.933E-07 | 4.797E-05    |
| 2182 | 3.031E+05            | 2.790E-07 | 4.563E-05    |
| 2183 | 3.031E+05            | 2.654E-07 | 4.341E-05    |
| 2184 | 3.031E+05            | 2.524E-07 | 4.129E-05    |
| 2185 | 3.031E+05            | 2.401E-07 | 3.928E-05    |
| 2186 | 3.031E+05            | 2.284E-07 | 3.736E-05    |
| 2187 | 3.031E+05            | 2.173E-07 | 3.554E-05    |
| 2188 | 3.031E+05            | 2.067E-07 | 3.380E-05    |
| 2189 | 3.031E+05            | 1.966E-07 | 3.216E-05    |
| 2190 | 3.031E+05            | 1.870E-07 | 3.059E-05    |
| 2191 | 3.031E+05            | 1.779E-07 | 2.910E-05    |
| 2192 | 3.031E+05            | 1.692E-07 | 2.768E-05    |
| 2193 | 3.031E+05            | 1.610E-07 | 2.633E-05    |
| 2194 | 3.031E+05            | 1.531E-07 | 2.504E-05    |
| 2195 | 3.031E+05            | 1.456E-07 | 2.382E-05    |
| 2196 | 3.031E+05            | 1.385E-07 | 2.266E-05    |
| 2197 | 3.031E+05            | 1.318E-07 | 2.155E-05    |
| 2198 | 3.031E+05            | 1.254E-07 | 2.050E-05    |
| 2199 | 3.031E+05            | 1.192E-07 | 1.950E-05    |
| 2200 | 3.031E+05            | 1.134E-07 | 1.855E-05    |
| 2201 | 3.031E+05            | 1.079E-07 | 1.765E-05    |
| 2202 | 3.031E+05            | 1.026E-07 | 1.679E-05    |
| 2203 | 3.031E+05            | 9.763E-08 | 1.597E-05    |

Table D-13. Emission Rate of Methylene Chloride from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA1.PRM

```

=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Methylene Chloride
Molecular Wt = 84.90      Concentration = 0.190000 ppmV
=====

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=====
                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

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=====
                          Model Results
=====
Year      Refuse In Place (Mg)      Methylene Chloride Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      2.701E-04      7.649E-02
1976      6.063E+04      5.271E-04      1.493E-01
1977      9.094E+04      7.715E-04      2.185E-01
1978      1.213E+05      1.004E-03      2.843E-01
1979      1.516E+05      1.225E-03      3.469E-01
1980      1.819E+05      1.435E-03      4.065E-01
1981      2.122E+05      1.636E-03      4.632E-01
1982      2.425E+05      1.826E-03      5.171E-01
1983      2.728E+05      2.007E-03      5.683E-01
1984      3.031E+05      2.179E-03      6.171E-01
1985      3.031E+05      2.073E-03      5.870E-01
1986      3.031E+05      1.972E-03      5.584E-01
1987      3.031E+05      1.876E-03      5.312E-01
1988      3.031E+05      1.784E-03      5.053E-01
1989      3.031E+05      1.697E-03      4.806E-01
1990      3.031E+05      1.614E-03      4.572E-01
1991      3.031E+05      1.536E-03      4.349E-01
1992      3.031E+05      1.461E-03      4.137E-01
1993      3.031E+05      1.390E-03      3.935E-01
1994      3.031E+05      1.322E-03      3.743E-01
1995      3.031E+05      1.257E-03      3.560E-01
1996      3.031E+05      1.196E-03      3.387E-01
1997      3.031E+05      1.138E-03      3.222E-01
1998      3.031E+05      1.082E-03      3.065E-01
1999      3.031E+05      1.029E-03      2.915E-01
2000      3.031E+05      9.792E-04      2.773E-01
2001      3.031E+05      9.314E-04      2.638E-01
2002      3.031E+05      8.860E-04      2.509E-01
2003      3.031E+05      8.428E-04      2.387E-01
2004      3.031E+05      8.017E-04      2.270E-01
2005      3.031E+05      7.626E-04      2.160E-01
2006      3.031E+05      7.254E-04      2.054E-01
2007      3.031E+05      6.900E-04      1.954E-01
2008      3.031E+05      6.564E-04      1.859E-01
2009      3.031E+05      6.244E-04      1.768E-01
2010      3.031E+05      5.939E-04      1.682E-01
2011      3.031E+05      5.649E-04      1.600E-01
2012      3.031E+05      5.374E-04      1.522E-01
2013      3.031E+05      5.112E-04      1.448E-01
2014      3.031E+05      4.862E-04      1.377E-01
2015      3.031E+05      4.625E-04      1.310E-01
2016      3.031E+05      4.400E-04      1.246E-01
2017      3.031E+05      4.185E-04      1.185E-01
2018      3.031E+05      3.981E-04      1.127E-01
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continued

Table D-13. Emission Rate of Methylene Chloride from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 3.787E-04 | 1.072E-01    |
| 2020 | 3.031E+05            | 3.602E-04 | 1.020E-01    |
| 2021 | 3.031E+05            | 3.427E-04 | 9.703E-02    |
| 2022 | 3.031E+05            | 3.259E-04 | 9.230E-02    |
| 2023 | 3.031E+05            | 3.100E-04 | 8.780E-02    |
| 2024 | 3.031E+05            | 2.949E-04 | 8.352E-02    |
| 2025 | 3.031E+05            | 2.805E-04 | 7.945E-02    |
| 2026 | 3.031E+05            | 2.669E-04 | 7.557E-02    |
| 2027 | 3.031E+05            | 2.538E-04 | 7.189E-02    |
| 2028 | 3.031E+05            | 2.415E-04 | 6.838E-02    |
| 2029 | 3.031E+05            | 2.297E-04 | 6.504E-02    |
| 2030 | 3.031E+05            | 2.185E-04 | 6.187E-02    |
| 2031 | 3.031E+05            | 2.078E-04 | 5.885E-02    |
| 2032 | 3.031E+05            | 1.977E-04 | 5.598E-02    |
| 2033 | 3.031E+05            | 1.881E-04 | 5.325E-02    |
| 2034 | 3.031E+05            | 1.789E-04 | 5.066E-02    |
| 2035 | 3.031E+05            | 1.702E-04 | 4.819E-02    |
| 2036 | 3.031E+05            | 1.619E-04 | 4.584E-02    |
| 2037 | 3.031E+05            | 1.540E-04 | 4.360E-02    |
| 2038 | 3.031E+05            | 1.465E-04 | 4.147E-02    |
| 2039 | 3.031E+05            | 1.393E-04 | 3.945E-02    |
| 2040 | 3.031E+05            | 1.325E-04 | 3.753E-02    |
| 2041 | 3.031E+05            | 1.261E-04 | 3.570E-02    |
| 2042 | 3.031E+05            | 1.199E-04 | 3.396E-02    |
| 2043 | 3.031E+05            | 1.141E-04 | 3.230E-02    |
| 2044 | 3.031E+05            | 1.085E-04 | 3.072E-02    |
| 2045 | 3.031E+05            | 1.032E-04 | 2.923E-02    |
| 2046 | 3.031E+05            | 9.817E-05 | 2.780E-02    |
| 2047 | 3.031E+05            | 9.338E-05 | 2.645E-02    |
| 2048 | 3.031E+05            | 8.883E-05 | 2.516E-02    |
| 2049 | 3.031E+05            | 8.450E-05 | 2.393E-02    |
| 2050 | 3.031E+05            | 8.038E-05 | 2.276E-02    |
| 2051 | 3.031E+05            | 7.646E-05 | 2.165E-02    |
| 2052 | 3.031E+05            | 7.273E-05 | 2.060E-02    |
| 2053 | 3.031E+05            | 6.918E-05 | 1.959E-02    |
| 2054 | 3.031E+05            | 6.581E-05 | 1.864E-02    |
| 2055 | 3.031E+05            | 6.260E-05 | 1.773E-02    |
| 2056 | 3.031E+05            | 5.954E-05 | 1.686E-02    |
| 2057 | 3.031E+05            | 5.664E-05 | 1.604E-02    |
| 2058 | 3.031E+05            | 5.388E-05 | 1.526E-02    |
| 2059 | 3.031E+05            | 5.125E-05 | 1.451E-02    |
| 2060 | 3.031E+05            | 4.875E-05 | 1.381E-02    |
| 2061 | 3.031E+05            | 4.637E-05 | 1.313E-02    |
| 2062 | 3.031E+05            | 4.411E-05 | 1.249E-02    |
| 2063 | 3.031E+05            | 4.196E-05 | 1.188E-02    |
| 2064 | 3.031E+05            | 3.991E-05 | 1.130E-02    |
| 2065 | 3.031E+05            | 3.797E-05 | 1.075E-02    |
| 2066 | 3.031E+05            | 3.612E-05 | 1.023E-02    |
| 2067 | 3.031E+05            | 3.435E-05 | 9.729E-03    |
| 2068 | 3.031E+05            | 3.268E-05 | 9.254E-03    |
| 2069 | 3.031E+05            | 3.108E-05 | 8.803E-03    |
| 2070 | 3.031E+05            | 2.957E-05 | 8.373E-03    |
| 2071 | 3.031E+05            | 2.813E-05 | 7.965E-03    |
| 2072 | 3.031E+05            | 2.675E-05 | 7.577E-03    |
| 2073 | 3.031E+05            | 2.545E-05 | 7.207E-03    |
| 2074 | 3.031E+05            | 2.421E-05 | 6.856E-03    |
| 2075 | 3.031E+05            | 2.303E-05 | 6.521E-03    |
| 2076 | 3.031E+05            | 2.190E-05 | 6.203E-03    |
| 2077 | 3.031E+05            | 2.084E-05 | 5.901E-03    |
| 2078 | 3.031E+05            | 1.982E-05 | 5.613E-03    |
| 2079 | 3.031E+05            | 1.885E-05 | 5.339E-03    |
| 2080 | 3.031E+05            | 1.793E-05 | 5.079E-03    |
| 2081 | 3.031E+05            | 1.706E-05 | 4.831E-03    |
| 2082 | 3.031E+05            | 1.623E-05 | 4.595E-03    |
| 2083 | 3.031E+05            | 1.544E-05 | 4.371E-03    |
| 2084 | 3.031E+05            | 1.468E-05 | 4.158E-03    |
| 2085 | 3.031E+05            | 1.397E-05 | 3.955E-03    |
| 2086 | 3.031E+05            | 1.329E-05 | 3.762E-03    |
| 2087 | 3.031E+05            | 1.264E-05 | 3.579E-03    |
| 2088 | 3.031E+05            | 1.202E-05 | 3.404E-03    |

continued

Table D-13. Emission Rate of Methylene Chloride from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 1.144E-05 | 3.238E-03    |
| 2090 | 3.031E+05            | 1.088E-05 | 3.080E-03    |
| 2091 | 3.031E+05            | 1.035E-05 | 2.930E-03    |
| 2092 | 3.031E+05            | 9.843E-06 | 2.787E-03    |
| 2093 | 3.031E+05            | 9.363E-06 | 2.651E-03    |
| 2094 | 3.031E+05            | 8.906E-06 | 2.522E-03    |
| 2095 | 3.031E+05            | 8.472E-06 | 2.399E-03    |
| 2096 | 3.031E+05            | 8.058E-06 | 2.282E-03    |
| 2097 | 3.031E+05            | 7.665E-06 | 2.171E-03    |
| 2098 | 3.031E+05            | 7.292E-06 | 2.065E-03    |
| 2099 | 3.031E+05            | 6.936E-06 | 1.964E-03    |
| 2100 | 3.031E+05            | 6.598E-06 | 1.868E-03    |
| 2101 | 3.031E+05            | 6.276E-06 | 1.777E-03    |
| 2102 | 3.031E+05            | 5.970E-06 | 1.691E-03    |
| 2103 | 3.031E+05            | 5.679E-06 | 1.608E-03    |
| 2104 | 3.031E+05            | 5.402E-06 | 1.530E-03    |
| 2105 | 3.031E+05            | 5.138E-06 | 1.455E-03    |
| 2106 | 3.031E+05            | 4.888E-06 | 1.384E-03    |
| 2107 | 3.031E+05            | 4.649E-06 | 1.317E-03    |
| 2108 | 3.031E+05            | 4.423E-06 | 1.252E-03    |
| 2109 | 3.031E+05            | 4.207E-06 | 1.191E-03    |
| 2110 | 3.031E+05            | 4.002E-06 | 1.133E-03    |
| 2111 | 3.031E+05            | 3.807E-06 | 1.078E-03    |
| 2112 | 3.031E+05            | 3.621E-06 | 1.025E-03    |
| 2113 | 3.031E+05            | 3.444E-06 | 9.754E-04    |
| 2114 | 3.031E+05            | 3.276E-06 | 9.278E-04    |
| 2115 | 3.031E+05            | 3.117E-06 | 8.826E-04    |
| 2116 | 3.031E+05            | 2.965E-06 | 8.395E-04    |
| 2117 | 3.031E+05            | 2.820E-06 | 7.986E-04    |
| 2118 | 3.031E+05            | 2.682E-06 | 7.596E-04    |
| 2119 | 3.031E+05            | 2.552E-06 | 7.226E-04    |
| 2120 | 3.031E+05            | 2.427E-06 | 6.873E-04    |
| 2121 | 3.031E+05            | 2.309E-06 | 6.538E-04    |
| 2122 | 3.031E+05            | 2.196E-06 | 6.219E-04    |
| 2123 | 3.031E+05            | 2.089E-06 | 5.916E-04    |
| 2124 | 3.031E+05            | 1.987E-06 | 5.627E-04    |
| 2125 | 3.031E+05            | 1.890E-06 | 5.353E-04    |
| 2126 | 3.031E+05            | 1.798E-06 | 5.092E-04    |
| 2127 | 3.031E+05            | 1.710E-06 | 4.844E-04    |
| 2128 | 3.031E+05            | 1.627E-06 | 4.607E-04    |
| 2129 | 3.031E+05            | 1.548E-06 | 4.383E-04    |
| 2130 | 3.031E+05            | 1.472E-06 | 4.169E-04    |
| 2131 | 3.031E+05            | 1.400E-06 | 3.966E-04    |
| 2132 | 3.031E+05            | 1.332E-06 | 3.772E-04    |
| 2133 | 3.031E+05            | 1.267E-06 | 3.588E-04    |
| 2134 | 3.031E+05            | 1.205E-06 | 3.413E-04    |
| 2135 | 3.031E+05            | 1.147E-06 | 3.247E-04    |
| 2136 | 3.031E+05            | 1.091E-06 | 3.088E-04    |
| 2137 | 3.031E+05            | 1.037E-06 | 2.938E-04    |
| 2138 | 3.031E+05            | 9.868E-07 | 2.795E-04    |
| 2139 | 3.031E+05            | 9.387E-07 | 2.658E-04    |
| 2140 | 3.031E+05            | 8.929E-07 | 2.529E-04    |
| 2141 | 3.031E+05            | 8.493E-07 | 2.405E-04    |
| 2142 | 3.031E+05            | 8.079E-07 | 2.288E-04    |
| 2143 | 3.031E+05            | 7.685E-07 | 2.176E-04    |
| 2144 | 3.031E+05            | 7.310E-07 | 2.070E-04    |
| 2145 | 3.031E+05            | 6.954E-07 | 1.969E-04    |
| 2146 | 3.031E+05            | 6.615E-07 | 1.873E-04    |
| 2147 | 3.031E+05            | 6.292E-07 | 1.782E-04    |
| 2148 | 3.031E+05            | 5.985E-07 | 1.695E-04    |
| 2149 | 3.031E+05            | 5.693E-07 | 1.612E-04    |
| 2150 | 3.031E+05            | 5.416E-07 | 1.534E-04    |
| 2151 | 3.031E+05            | 5.152E-07 | 1.459E-04    |
| 2152 | 3.031E+05            | 4.900E-07 | 1.388E-04    |
| 2153 | 3.031E+05            | 4.661E-07 | 1.320E-04    |
| 2154 | 3.031E+05            | 4.434E-07 | 1.256E-04    |
| 2155 | 3.031E+05            | 4.218E-07 | 1.194E-04    |
| 2156 | 3.031E+05            | 4.012E-07 | 1.136E-04    |
| 2157 | 3.031E+05            | 3.816E-07 | 1.081E-04    |
| 2158 | 3.031E+05            | 3.630E-07 | 1.028E-04    |

continued

Table D-13. Emission Rate of Methylene Chloride from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 3.453E-07 | 9.779E-05    |
| 2160 | 3.031E+05            | 3.285E-07 | 9.302E-05    |
| 2161 | 3.031E+05            | 3.125E-07 | 8.848E-05    |
| 2162 | 3.031E+05            | 2.972E-07 | 8.417E-05    |
| 2163 | 3.031E+05            | 2.827E-07 | 8.006E-05    |
| 2164 | 3.031E+05            | 2.689E-07 | 7.616E-05    |
| 2165 | 3.031E+05            | 2.558E-07 | 7.244E-05    |
| 2166 | 3.031E+05            | 2.433E-07 | 6.891E-05    |
| 2167 | 3.031E+05            | 2.315E-07 | 6.555E-05    |
| 2168 | 3.031E+05            | 2.202E-07 | 6.235E-05    |
| 2169 | 3.031E+05            | 2.094E-07 | 5.931E-05    |
| 2170 | 3.031E+05            | 1.992E-07 | 5.642E-05    |
| 2171 | 3.031E+05            | 1.895E-07 | 5.367E-05    |
| 2172 | 3.031E+05            | 1.803E-07 | 5.105E-05    |
| 2173 | 3.031E+05            | 1.715E-07 | 4.856E-05    |
| 2174 | 3.031E+05            | 1.631E-07 | 4.619E-05    |
| 2175 | 3.031E+05            | 1.552E-07 | 4.394E-05    |
| 2176 | 3.031E+05            | 1.476E-07 | 4.180E-05    |
| 2177 | 3.031E+05            | 1.404E-07 | 3.976E-05    |
| 2178 | 3.031E+05            | 1.335E-07 | 3.782E-05    |
| 2179 | 3.031E+05            | 1.270E-07 | 3.597E-05    |
| 2180 | 3.031E+05            | 1.208E-07 | 3.422E-05    |
| 2181 | 3.031E+05            | 1.149E-07 | 3.255E-05    |
| 2182 | 3.031E+05            | 1.093E-07 | 3.096E-05    |
| 2183 | 3.031E+05            | 1.040E-07 | 2.945E-05    |
| 2184 | 3.031E+05            | 9.894E-08 | 2.802E-05    |
| 2185 | 3.031E+05            | 9.411E-08 | 2.665E-05    |
| 2186 | 3.031E+05            | 8.952E-08 | 2.535E-05    |
| 2187 | 3.031E+05            | 8.515E-08 | 2.411E-05    |
| 2188 | 3.031E+05            | 8.100E-08 | 2.294E-05    |
| 2189 | 3.031E+05            | 7.705E-08 | 2.182E-05    |
| 2190 | 3.031E+05            | 7.329E-08 | 2.076E-05    |
| 2191 | 3.031E+05            | 6.972E-08 | 1.974E-05    |
| 2192 | 3.031E+05            | 6.632E-08 | 1.878E-05    |
| 2193 | 3.031E+05            | 6.308E-08 | 1.786E-05    |
| 2194 | 3.031E+05            | 6.001E-08 | 1.699E-05    |
| 2195 | 3.031E+05            | 5.708E-08 | 1.616E-05    |
| 2196 | 3.031E+05            | 5.430E-08 | 1.538E-05    |
| 2197 | 3.031E+05            | 5.165E-08 | 1.463E-05    |
| 2198 | 3.031E+05            | 4.913E-08 | 1.391E-05    |
| 2199 | 3.031E+05            | 4.673E-08 | 1.323E-05    |
| 2200 | 3.031E+05            | 4.445E-08 | 1.259E-05    |
| 2201 | 3.031E+05            | 4.229E-08 | 1.198E-05    |
| 2202 | 3.031E+05            | 4.022E-08 | 1.139E-05    |
| 2203 | 3.031E+05            | 3.826E-08 | 1.084E-05    |

Table D-14. Emission Rate of Tetrachloroethene from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA1.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Tetrachloroethene
Molecular Wt = 165.83      Concentration =      0.610000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      Tetrachloroethene Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      1.694E-03      2.456E-01
1976      6.063E+04      3.305E-03      4.792E-01
1977      9.094E+04      4.838E-03      7.014E-01
1978      1.213E+05      6.296E-03      9.128E-01
1979      1.516E+05      7.682E-03      1.114E+00
1980      1.819E+05      9.002E-03      1.305E+00
1981      2.122E+05      1.026E-02      1.487E+00
1982      2.425E+05      1.145E-02      1.660E+00
1983      2.728E+05      1.259E-02      1.825E+00
1984      3.031E+05      1.367E-02      1.981E+00
1985      3.031E+05      1.300E-02      1.885E+00
1986      3.031E+05      1.237E-02      1.793E+00
1987      3.031E+05      1.176E-02      1.705E+00
1988      3.031E+05      1.119E-02      1.622E+00
1989      3.031E+05      1.064E-02      1.543E+00
1990      3.031E+05      1.012E-02      1.468E+00
1991      3.031E+05      9.630E-03      1.396E+00
1992      3.031E+05      9.160E-03      1.328E+00
1993      3.031E+05      8.714E-03      1.263E+00
1994      3.031E+05      8.289E-03      1.202E+00
1995      3.031E+05      7.884E-03      1.143E+00
1996      3.031E+05      7.500E-03      1.087E+00
1997      3.031E+05      7.134E-03      1.034E+00
1998      3.031E+05      6.786E-03      9.839E-01
1999      3.031E+05      6.455E-03      9.359E-01
2000      3.031E+05      6.140E-03      8.903E-01
2001      3.031E+05      5.841E-03      8.468E-01
2002      3.031E+05      5.556E-03      8.055E-01
2003      3.031E+05      5.285E-03      7.662E-01
2004      3.031E+05      5.027E-03      7.289E-01
2005      3.031E+05      4.782E-03      6.933E-01
2006      3.031E+05      4.549E-03      6.595E-01
2007      3.031E+05      4.327E-03      6.273E-01
2008      3.031E+05      4.116E-03      5.968E-01
2009      3.031E+05      3.915E-03      5.676E-01
2010      3.031E+05      3.724E-03      5.400E-01
2011      3.031E+05      3.543E-03      5.136E-01
2012      3.031E+05      3.370E-03      4.886E-01
2013      3.031E+05      3.206E-03      4.648E-01
2014      3.031E+05      3.049E-03      4.421E-01
2015      3.031E+05      2.900E-03      4.205E-01
2016      3.031E+05      2.759E-03      4.000E-01
2017      3.031E+05      2.624E-03      3.805E-01
2018      3.031E+05      2.496E-03      3.619E-01
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continued

Table D-14. Emission Rate of Tetrachloroethene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 2.375E-03 | 3.443E-01    |
| 2020 | 3.031E+05            | 2.259E-03 | 3.275E-01    |
| 2021 | 3.031E+05            | 2.149E-03 | 3.115E-01    |
| 2022 | 3.031E+05            | 2.044E-03 | 2.963E-01    |
| 2023 | 3.031E+05            | 1.944E-03 | 2.819E-01    |
| 2024 | 3.031E+05            | 1.849E-03 | 2.681E-01    |
| 2025 | 3.031E+05            | 1.759E-03 | 2.551E-01    |
| 2026 | 3.031E+05            | 1.673E-03 | 2.426E-01    |
| 2027 | 3.031E+05            | 1.592E-03 | 2.308E-01    |
| 2028 | 3.031E+05            | 1.514E-03 | 2.195E-01    |
| 2029 | 3.031E+05            | 1.440E-03 | 2.088E-01    |
| 2030 | 3.031E+05            | 1.370E-03 | 1.986E-01    |
| 2031 | 3.031E+05            | 1.303E-03 | 1.890E-01    |
| 2032 | 3.031E+05            | 1.240E-03 | 1.797E-01    |
| 2033 | 3.031E+05            | 1.179E-03 | 1.710E-01    |
| 2034 | 3.031E+05            | 1.122E-03 | 1.626E-01    |
| 2035 | 3.031E+05            | 1.067E-03 | 1.547E-01    |
| 2036 | 3.031E+05            | 1.015E-03 | 1.472E-01    |
| 2037 | 3.031E+05            | 9.655E-04 | 1.400E-01    |
| 2038 | 3.031E+05            | 9.184E-04 | 1.332E-01    |
| 2039 | 3.031E+05            | 8.736E-04 | 1.267E-01    |
| 2040 | 3.031E+05            | 8.310E-04 | 1.205E-01    |
| 2041 | 3.031E+05            | 7.905E-04 | 1.146E-01    |
| 2042 | 3.031E+05            | 7.519E-04 | 1.090E-01    |
| 2043 | 3.031E+05            | 7.153E-04 | 1.037E-01    |
| 2044 | 3.031E+05            | 6.804E-04 | 9.864E-02    |
| 2045 | 3.031E+05            | 6.472E-04 | 9.383E-02    |
| 2046 | 3.031E+05            | 6.156E-04 | 8.926E-02    |
| 2047 | 3.031E+05            | 5.856E-04 | 8.490E-02    |
| 2048 | 3.031E+05            | 5.570E-04 | 8.076E-02    |
| 2049 | 3.031E+05            | 5.299E-04 | 7.682E-02    |
| 2050 | 3.031E+05            | 5.040E-04 | 7.308E-02    |
| 2051 | 3.031E+05            | 4.794E-04 | 6.951E-02    |
| 2052 | 3.031E+05            | 4.561E-04 | 6.612E-02    |
| 2053 | 3.031E+05            | 4.338E-04 | 6.290E-02    |
| 2054 | 3.031E+05            | 4.127E-04 | 5.983E-02    |
| 2055 | 3.031E+05            | 3.925E-04 | 5.691E-02    |
| 2056 | 3.031E+05            | 3.734E-04 | 5.414E-02    |
| 2057 | 3.031E+05            | 3.552E-04 | 5.150E-02    |
| 2058 | 3.031E+05            | 3.379E-04 | 4.898E-02    |
| 2059 | 3.031E+05            | 3.214E-04 | 4.660E-02    |
| 2060 | 3.031E+05            | 3.057E-04 | 4.432E-02    |
| 2061 | 3.031E+05            | 2.908E-04 | 4.216E-02    |
| 2062 | 3.031E+05            | 2.766E-04 | 4.011E-02    |
| 2063 | 3.031E+05            | 2.631E-04 | 3.815E-02    |
| 2064 | 3.031E+05            | 2.503E-04 | 3.629E-02    |
| 2065 | 3.031E+05            | 2.381E-04 | 3.452E-02    |
| 2066 | 3.031E+05            | 2.265E-04 | 3.284E-02    |
| 2067 | 3.031E+05            | 2.154E-04 | 3.123E-02    |
| 2068 | 3.031E+05            | 2.049E-04 | 2.971E-02    |
| 2069 | 3.031E+05            | 1.949E-04 | 2.826E-02    |
| 2070 | 3.031E+05            | 1.854E-04 | 2.688E-02    |
| 2071 | 3.031E+05            | 1.764E-04 | 2.557E-02    |
| 2072 | 3.031E+05            | 1.678E-04 | 2.432E-02    |
| 2073 | 3.031E+05            | 1.596E-04 | 2.314E-02    |
| 2074 | 3.031E+05            | 1.518E-04 | 2.201E-02    |
| 2075 | 3.031E+05            | 1.444E-04 | 2.094E-02    |
| 2076 | 3.031E+05            | 1.374E-04 | 1.992E-02    |
| 2077 | 3.031E+05            | 1.307E-04 | 1.894E-02    |
| 2078 | 3.031E+05            | 1.243E-04 | 1.802E-02    |
| 2079 | 3.031E+05            | 1.182E-04 | 1.714E-02    |
| 2080 | 3.031E+05            | 1.125E-04 | 1.631E-02    |
| 2081 | 3.031E+05            | 1.070E-04 | 1.551E-02    |
| 2082 | 3.031E+05            | 1.018E-04 | 1.475E-02    |
| 2083 | 3.031E+05            | 9.680E-05 | 1.403E-02    |
| 2084 | 3.031E+05            | 9.208E-05 | 1.335E-02    |
| 2085 | 3.031E+05            | 8.759E-05 | 1.270E-02    |
| 2086 | 3.031E+05            | 8.332E-05 | 1.208E-02    |
| 2087 | 3.031E+05            | 7.925E-05 | 1.149E-02    |
| 2088 | 3.031E+05            | 7.539E-05 | 1.093E-02    |

continued



Table D-14. Emission Rate of Tetrachloroethene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 7.171E-05 | 1.040E-02    |
| 2090 | 3.031E+05            | 6.821E-05 | 9.890E-03    |
| 2091 | 3.031E+05            | 6.489E-05 | 9.407E-03    |
| 2092 | 3.031E+05            | 6.172E-05 | 8.949E-03    |
| 2093 | 3.031E+05            | 5.871E-05 | 8.512E-03    |
| 2094 | 3.031E+05            | 5.585E-05 | 8.097E-03    |
| 2095 | 3.031E+05            | 5.312E-05 | 7.702E-03    |
| 2096 | 3.031E+05            | 5.053E-05 | 7.327E-03    |
| 2097 | 3.031E+05            | 4.807E-05 | 6.969E-03    |
| 2098 | 3.031E+05            | 4.572E-05 | 6.629E-03    |
| 2099 | 3.031E+05            | 4.349E-05 | 6.306E-03    |
| 2100 | 3.031E+05            | 4.137E-05 | 5.998E-03    |
| 2101 | 3.031E+05            | 3.936E-05 | 5.706E-03    |
| 2102 | 3.031E+05            | 3.744E-05 | 5.428E-03    |
| 2103 | 3.031E+05            | 3.561E-05 | 5.163E-03    |
| 2104 | 3.031E+05            | 3.387E-05 | 4.911E-03    |
| 2105 | 3.031E+05            | 3.222E-05 | 4.672E-03    |
| 2106 | 3.031E+05            | 3.065E-05 | 4.444E-03    |
| 2107 | 3.031E+05            | 2.916E-05 | 4.227E-03    |
| 2108 | 3.031E+05            | 2.773E-05 | 4.021E-03    |
| 2109 | 3.031E+05            | 2.638E-05 | 3.825E-03    |
| 2110 | 3.031E+05            | 2.509E-05 | 3.638E-03    |
| 2111 | 3.031E+05            | 2.387E-05 | 3.461E-03    |
| 2112 | 3.031E+05            | 2.271E-05 | 3.292E-03    |
| 2113 | 3.031E+05            | 2.160E-05 | 3.131E-03    |
| 2114 | 3.031E+05            | 2.055E-05 | 2.979E-03    |
| 2115 | 3.031E+05            | 1.954E-05 | 2.833E-03    |
| 2116 | 3.031E+05            | 1.859E-05 | 2.695E-03    |
| 2117 | 3.031E+05            | 1.768E-05 | 2.564E-03    |
| 2118 | 3.031E+05            | 1.682E-05 | 2.439E-03    |
| 2119 | 3.031E+05            | 1.600E-05 | 2.320E-03    |
| 2120 | 3.031E+05            | 1.522E-05 | 2.207E-03    |
| 2121 | 3.031E+05            | 1.448E-05 | 2.099E-03    |
| 2122 | 3.031E+05            | 1.377E-05 | 1.997E-03    |
| 2123 | 3.031E+05            | 1.310E-05 | 1.899E-03    |
| 2124 | 3.031E+05            | 1.246E-05 | 1.807E-03    |
| 2125 | 3.031E+05            | 1.185E-05 | 1.719E-03    |
| 2126 | 3.031E+05            | 1.128E-05 | 1.635E-03    |
| 2127 | 3.031E+05            | 1.073E-05 | 1.555E-03    |
| 2128 | 3.031E+05            | 1.020E-05 | 1.479E-03    |
| 2129 | 3.031E+05            | 9.705E-06 | 1.407E-03    |
| 2130 | 3.031E+05            | 9.232E-06 | 1.338E-03    |
| 2131 | 3.031E+05            | 8.781E-06 | 1.273E-03    |
| 2132 | 3.031E+05            | 8.353E-06 | 1.211E-03    |
| 2133 | 3.031E+05            | 7.946E-06 | 1.152E-03    |
| 2134 | 3.031E+05            | 7.558E-06 | 1.096E-03    |
| 2135 | 3.031E+05            | 7.190E-06 | 1.042E-03    |
| 2136 | 3.031E+05            | 6.839E-06 | 9.915E-04    |
| 2137 | 3.031E+05            | 6.505E-06 | 9.432E-04    |
| 2138 | 3.031E+05            | 6.188E-06 | 8.972E-04    |
| 2139 | 3.031E+05            | 5.886E-06 | 8.534E-04    |
| 2140 | 3.031E+05            | 5.599E-06 | 8.118E-04    |
| 2141 | 3.031E+05            | 5.326E-06 | 7.722E-04    |
| 2142 | 3.031E+05            | 5.066E-06 | 7.346E-04    |
| 2143 | 3.031E+05            | 4.819E-06 | 6.987E-04    |
| 2144 | 3.031E+05            | 4.584E-06 | 6.646E-04    |
| 2145 | 3.031E+05            | 4.361E-06 | 6.322E-04    |
| 2146 | 3.031E+05            | 4.148E-06 | 6.014E-04    |
| 2147 | 3.031E+05            | 3.946E-06 | 5.721E-04    |
| 2148 | 3.031E+05            | 3.753E-06 | 5.442E-04    |
| 2149 | 3.031E+05            | 3.570E-06 | 5.176E-04    |
| 2150 | 3.031E+05            | 3.396E-06 | 4.924E-04    |
| 2151 | 3.031E+05            | 3.231E-06 | 4.684E-04    |
| 2152 | 3.031E+05            | 3.073E-06 | 4.455E-04    |
| 2153 | 3.031E+05            | 2.923E-06 | 4.238E-04    |
| 2154 | 3.031E+05            | 2.781E-06 | 4.031E-04    |
| 2155 | 3.031E+05            | 2.645E-06 | 3.835E-04    |
| 2156 | 3.031E+05            | 2.516E-06 | 3.648E-04    |
| 2157 | 3.031E+05            | 2.393E-06 | 3.470E-04    |
| 2158 | 3.031E+05            | 2.276E-06 | 3.301E-04    |

continued

Table D-14. Emission Rate of Tetrachloroethene from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 2.165E-06 | 3.140E-04    |
| 2160 | 3.031E+05            | 2.060E-06 | 2.986E-04    |
| 2161 | 3.031E+05            | 1.959E-06 | 2.841E-04    |
| 2162 | 3.031E+05            | 1.864E-06 | 2.702E-04    |
| 2163 | 3.031E+05            | 1.773E-06 | 2.570E-04    |
| 2164 | 3.031E+05            | 1.686E-06 | 2.445E-04    |
| 2165 | 3.031E+05            | 1.604E-06 | 2.326E-04    |
| 2166 | 3.031E+05            | 1.526E-06 | 2.212E-04    |
| 2167 | 3.031E+05            | 1.452E-06 | 2.105E-04    |
| 2168 | 3.031E+05            | 1.381E-06 | 2.002E-04    |
| 2169 | 3.031E+05            | 1.313E-06 | 1.904E-04    |
| 2170 | 3.031E+05            | 1.249E-06 | 1.811E-04    |
| 2171 | 3.031E+05            | 1.188E-06 | 1.723E-04    |
| 2172 | 3.031E+05            | 1.130E-06 | 1.639E-04    |
| 2173 | 3.031E+05            | 1.075E-06 | 1.559E-04    |
| 2174 | 3.031E+05            | 1.023E-06 | 1.483E-04    |
| 2175 | 3.031E+05            | 9.730E-07 | 1.411E-04    |
| 2176 | 3.031E+05            | 9.256E-07 | 1.342E-04    |
| 2177 | 3.031E+05            | 8.804E-07 | 1.276E-04    |
| 2178 | 3.031E+05            | 8.375E-07 | 1.214E-04    |
| 2179 | 3.031E+05            | 7.966E-07 | 1.155E-04    |
| 2180 | 3.031E+05            | 7.578E-07 | 1.099E-04    |
| 2181 | 3.031E+05            | 7.208E-07 | 1.045E-04    |
| 2182 | 3.031E+05            | 6.857E-07 | 9.941E-05    |
| 2183 | 3.031E+05            | 6.522E-07 | 9.456E-05    |
| 2184 | 3.031E+05            | 6.204E-07 | 8.995E-05    |
| 2185 | 3.031E+05            | 5.902E-07 | 8.556E-05    |
| 2186 | 3.031E+05            | 5.614E-07 | 8.139E-05    |
| 2187 | 3.031E+05            | 5.340E-07 | 7.742E-05    |
| 2188 | 3.031E+05            | 5.080E-07 | 7.365E-05    |
| 2189 | 3.031E+05            | 4.832E-07 | 7.005E-05    |
| 2190 | 3.031E+05            | 4.596E-07 | 6.664E-05    |
| 2191 | 3.031E+05            | 4.372E-07 | 6.339E-05    |
| 2192 | 3.031E+05            | 4.159E-07 | 6.030E-05    |
| 2193 | 3.031E+05            | 3.956E-07 | 5.735E-05    |
| 2194 | 3.031E+05            | 3.763E-07 | 5.456E-05    |
| 2195 | 3.031E+05            | 3.580E-07 | 5.190E-05    |
| 2196 | 3.031E+05            | 3.405E-07 | 4.937E-05    |
| 2197 | 3.031E+05            | 3.239E-07 | 4.696E-05    |
| 2198 | 3.031E+05            | 3.081E-07 | 4.467E-05    |
| 2199 | 3.031E+05            | 2.931E-07 | 4.249E-05    |
| 2200 | 3.031E+05            | 2.788E-07 | 4.042E-05    |
| 2201 | 3.031E+05            | 2.652E-07 | 3.845E-05    |
| 2202 | 3.031E+05            | 2.522E-07 | 3.657E-05    |
| 2203 | 3.031E+05            | 2.399E-07 | 3.479E-05    |

Table D-15. Emission Rate of Toluene from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177-2.000\030177-1.003\BUSHVA-1\STRATA1.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Toluene (HAP/VOC)
Molecular Wt = 92.14      Concentration = 11.200000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      Toluene (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      1.728E-02      4.509E+00
1976      6.063E+04      3.372E-02      8.798E+00
1977      9.094E+04      4.935E-02      1.288E+01
1978      1.213E+05      6.423E-02      1.676E+01
1979      1.516E+05      7.837E-02      2.045E+01
1980      1.819E+05      9.183E-02      2.396E+01
1981      2.122E+05      1.046E-01      2.730E+01
1982      2.425E+05      1.168E-01      3.048E+01
1983      2.728E+05      1.284E-01      3.350E+01
1984      3.031E+05      1.394E-01      3.638E+01
1985      3.031E+05      1.326E-01      3.460E+01
1986      3.031E+05      1.261E-01      3.292E+01
1987      3.031E+05      1.200E-01      3.131E+01
1988      3.031E+05      1.141E-01      2.978E+01
1989      3.031E+05      1.086E-01      2.833E+01
1990      3.031E+05      1.033E-01      2.695E+01
1991      3.031E+05      9.824E-02      2.563E+01
1992      3.031E+05      9.345E-02      2.438E+01
1993      3.031E+05      8.889E-02      2.320E+01
1994      3.031E+05      8.456E-02      2.206E+01
1995      3.031E+05      8.043E-02      2.099E+01
1996      3.031E+05      7.651E-02      1.996E+01
1997      3.031E+05      7.278E-02      1.899E+01
1998      3.031E+05      6.923E-02      1.806E+01
1999      3.031E+05      6.585E-02      1.718E+01
2000      3.031E+05      6.264E-02      1.635E+01
2001      3.031E+05      5.959E-02      1.555E+01
2002      3.031E+05      5.668E-02      1.479E+01
2003      3.031E+05      5.392E-02      1.407E+01
2004      3.031E+05      5.129E-02      1.338E+01
2005      3.031E+05      4.879E-02      1.273E+01
2006      3.031E+05      4.641E-02      1.211E+01
2007      3.031E+05      4.414E-02      1.152E+01
2008      3.031E+05      4.199E-02      1.096E+01
2009      3.031E+05      3.994E-02      1.042E+01
2010      3.031E+05      3.799E-02      9.914E+00
2011      3.031E+05      3.614E-02      9.431E+00
2012      3.031E+05      3.438E-02      8.971E+00
2013      3.031E+05      3.270E-02      8.533E+00
2014      3.031E+05      3.111E-02      8.117E+00
2015      3.031E+05      2.959E-02      7.721E+00
2016      3.031E+05      2.815E-02      7.345E+00
2017      3.031E+05      2.677E-02      6.986E+00
2018      3.031E+05      2.547E-02      6.646E+00
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continued

Table D-15. Emission Rate of Toluene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 2.423E-02 | 6.322E+00    |
| 2020 | 3.031E+05            | 2.304E-02 | 6.013E+00    |
| 2021 | 3.031E+05            | 2.192E-02 | 5.720E+00    |
| 2022 | 3.031E+05            | 2.085E-02 | 5.441E+00    |
| 2023 | 3.031E+05            | 1.983E-02 | 5.176E+00    |
| 2024 | 3.031E+05            | 1.887E-02 | 4.923E+00    |
| 2025 | 3.031E+05            | 1.795E-02 | 4.683E+00    |
| 2026 | 3.031E+05            | 1.707E-02 | 4.455E+00    |
| 2027 | 3.031E+05            | 1.624E-02 | 4.237E+00    |
| 2028 | 3.031E+05            | 1.545E-02 | 4.031E+00    |
| 2029 | 3.031E+05            | 1.469E-02 | 3.834E+00    |
| 2030 | 3.031E+05            | 1.398E-02 | 3.647E+00    |
| 2031 | 3.031E+05            | 1.330E-02 | 3.469E+00    |
| 2032 | 3.031E+05            | 1.265E-02 | 3.300E+00    |
| 2033 | 3.031E+05            | 1.203E-02 | 3.139E+00    |
| 2034 | 3.031E+05            | 1.144E-02 | 2.986E+00    |
| 2035 | 3.031E+05            | 1.089E-02 | 2.840E+00    |
| 2036 | 3.031E+05            | 1.035E-02 | 2.702E+00    |
| 2037 | 3.031E+05            | 9.850E-03 | 2.570E+00    |
| 2038 | 3.031E+05            | 9.369E-03 | 2.445E+00    |
| 2039 | 3.031E+05            | 8.912E-03 | 2.326E+00    |
| 2040 | 3.031E+05            | 8.478E-03 | 2.212E+00    |
| 2041 | 3.031E+05            | 8.064E-03 | 2.104E+00    |
| 2042 | 3.031E+05            | 7.671E-03 | 2.002E+00    |
| 2043 | 3.031E+05            | 7.297E-03 | 1.904E+00    |
| 2044 | 3.031E+05            | 6.941E-03 | 1.811E+00    |
| 2045 | 3.031E+05            | 6.602E-03 | 1.723E+00    |
| 2046 | 3.031E+05            | 6.280E-03 | 1.639E+00    |
| 2047 | 3.031E+05            | 5.974E-03 | 1.559E+00    |
| 2048 | 3.031E+05            | 5.683E-03 | 1.483E+00    |
| 2049 | 3.031E+05            | 5.406E-03 | 1.411E+00    |
| 2050 | 3.031E+05            | 5.142E-03 | 1.342E+00    |
| 2051 | 3.031E+05            | 4.891E-03 | 1.276E+00    |
| 2052 | 3.031E+05            | 4.653E-03 | 1.214E+00    |
| 2053 | 3.031E+05            | 4.426E-03 | 1.155E+00    |
| 2054 | 3.031E+05            | 4.210E-03 | 1.099E+00    |
| 2055 | 3.031E+05            | 4.005E-03 | 1.045E+00    |
| 2056 | 3.031E+05            | 3.809E-03 | 9.940E-01    |
| 2057 | 3.031E+05            | 3.623E-03 | 9.455E-01    |
| 2058 | 3.031E+05            | 3.447E-03 | 8.994E-01    |
| 2059 | 3.031E+05            | 3.279E-03 | 8.555E-01    |
| 2060 | 3.031E+05            | 3.119E-03 | 8.138E-01    |
| 2061 | 3.031E+05            | 2.967E-03 | 7.741E-01    |
| 2062 | 3.031E+05            | 2.822E-03 | 7.364E-01    |
| 2063 | 3.031E+05            | 2.684E-03 | 7.004E-01    |
| 2064 | 3.031E+05            | 2.553E-03 | 6.663E-01    |
| 2065 | 3.031E+05            | 2.429E-03 | 6.338E-01    |
| 2066 | 3.031E+05            | 2.310E-03 | 6.029E-01    |
| 2067 | 3.031E+05            | 2.198E-03 | 5.735E-01    |
| 2068 | 3.031E+05            | 2.091E-03 | 5.455E-01    |
| 2069 | 3.031E+05            | 1.989E-03 | 5.189E-01    |
| 2070 | 3.031E+05            | 1.892E-03 | 4.936E-01    |
| 2071 | 3.031E+05            | 1.799E-03 | 4.695E-01    |
| 2072 | 3.031E+05            | 1.712E-03 | 4.466E-01    |
| 2073 | 3.031E+05            | 1.628E-03 | 4.248E-01    |
| 2074 | 3.031E+05            | 1.549E-03 | 4.041E-01    |
| 2075 | 3.031E+05            | 1.473E-03 | 3.844E-01    |
| 2076 | 3.031E+05            | 1.401E-03 | 3.657E-01    |
| 2077 | 3.031E+05            | 1.333E-03 | 3.478E-01    |
| 2078 | 3.031E+05            | 1.268E-03 | 3.309E-01    |
| 2079 | 3.031E+05            | 1.206E-03 | 3.147E-01    |
| 2080 | 3.031E+05            | 1.147E-03 | 2.994E-01    |
| 2081 | 3.031E+05            | 1.091E-03 | 2.848E-01    |
| 2082 | 3.031E+05            | 1.038E-03 | 2.709E-01    |
| 2083 | 3.031E+05            | 9.875E-04 | 2.577E-01    |
| 2084 | 3.031E+05            | 9.394E-04 | 2.451E-01    |
| 2085 | 3.031E+05            | 8.935E-04 | 2.332E-01    |
| 2086 | 3.031E+05            | 8.500E-04 | 2.218E-01    |
| 2087 | 3.031E+05            | 8.085E-04 | 2.110E-01    |
| 2088 | 3.031E+05            | 7.691E-04 | 2.007E-01    |

continued

Table D-15. Emission Rate of Toluene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 7.316E-04 | 1.909E-01    |
| 2090 | 3.031E+05            | 6.959E-04 | 1.816E-01    |
| 2091 | 3.031E+05            | 6.620E-04 | 1.727E-01    |
| 2092 | 3.031E+05            | 6.297E-04 | 1.643E-01    |
| 2093 | 3.031E+05            | 5.990E-04 | 1.563E-01    |
| 2094 | 3.031E+05            | 5.697E-04 | 1.487E-01    |
| 2095 | 3.031E+05            | 5.420E-04 | 1.414E-01    |
| 2096 | 3.031E+05            | 5.155E-04 | 1.345E-01    |
| 2097 | 3.031E+05            | 4.904E-04 | 1.280E-01    |
| 2098 | 3.031E+05            | 4.665E-04 | 1.217E-01    |
| 2099 | 3.031E+05            | 4.437E-04 | 1.158E-01    |
| 2100 | 3.031E+05            | 4.221E-04 | 1.101E-01    |
| 2101 | 3.031E+05            | 4.015E-04 | 1.048E-01    |
| 2102 | 3.031E+05            | 3.819E-04 | 9.965E-02    |
| 2103 | 3.031E+05            | 3.633E-04 | 9.479E-02    |
| 2104 | 3.031E+05            | 3.456E-04 | 9.017E-02    |
| 2105 | 3.031E+05            | 3.287E-04 | 8.577E-02    |
| 2106 | 3.031E+05            | 3.127E-04 | 8.159E-02    |
| 2107 | 3.031E+05            | 2.974E-04 | 7.761E-02    |
| 2108 | 3.031E+05            | 2.829E-04 | 7.383E-02    |
| 2109 | 3.031E+05            | 2.691E-04 | 7.023E-02    |
| 2110 | 3.031E+05            | 2.560E-04 | 6.680E-02    |
| 2111 | 3.031E+05            | 2.435E-04 | 6.354E-02    |
| 2112 | 3.031E+05            | 2.316E-04 | 6.044E-02    |
| 2113 | 3.031E+05            | 2.203E-04 | 5.750E-02    |
| 2114 | 3.031E+05            | 2.096E-04 | 5.469E-02    |
| 2115 | 3.031E+05            | 1.994E-04 | 5.202E-02    |
| 2116 | 3.031E+05            | 1.897E-04 | 4.949E-02    |
| 2117 | 3.031E+05            | 1.804E-04 | 4.707E-02    |
| 2118 | 3.031E+05            | 1.716E-04 | 4.478E-02    |
| 2119 | 3.031E+05            | 1.632E-04 | 4.259E-02    |
| 2120 | 3.031E+05            | 1.553E-04 | 4.052E-02    |
| 2121 | 3.031E+05            | 1.477E-04 | 3.854E-02    |
| 2122 | 3.031E+05            | 1.405E-04 | 3.666E-02    |
| 2123 | 3.031E+05            | 1.336E-04 | 3.487E-02    |
| 2124 | 3.031E+05            | 1.271E-04 | 3.317E-02    |
| 2125 | 3.031E+05            | 1.209E-04 | 3.155E-02    |
| 2126 | 3.031E+05            | 1.150E-04 | 3.002E-02    |
| 2127 | 3.031E+05            | 1.094E-04 | 2.855E-02    |
| 2128 | 3.031E+05            | 1.041E-04 | 2.716E-02    |
| 2129 | 3.031E+05            | 9.901E-05 | 2.583E-02    |
| 2130 | 3.031E+05            | 9.418E-05 | 2.457E-02    |
| 2131 | 3.031E+05            | 8.959E-05 | 2.338E-02    |
| 2132 | 3.031E+05            | 8.522E-05 | 2.224E-02    |
| 2133 | 3.031E+05            | 8.106E-05 | 2.115E-02    |
| 2134 | 3.031E+05            | 7.711E-05 | 2.012E-02    |
| 2135 | 3.031E+05            | 7.335E-05 | 1.914E-02    |
| 2136 | 3.031E+05            | 6.977E-05 | 1.821E-02    |
| 2137 | 3.031E+05            | 6.637E-05 | 1.732E-02    |
| 2138 | 3.031E+05            | 6.313E-05 | 1.647E-02    |
| 2139 | 3.031E+05            | 6.005E-05 | 1.567E-02    |
| 2140 | 3.031E+05            | 5.712E-05 | 1.491E-02    |
| 2141 | 3.031E+05            | 5.434E-05 | 1.418E-02    |
| 2142 | 3.031E+05            | 5.169E-05 | 1.349E-02    |
| 2143 | 3.031E+05            | 4.917E-05 | 1.283E-02    |
| 2144 | 3.031E+05            | 4.677E-05 | 1.220E-02    |
| 2145 | 3.031E+05            | 4.449E-05 | 1.161E-02    |
| 2146 | 3.031E+05            | 4.232E-05 | 1.104E-02    |
| 2147 | 3.031E+05            | 4.025E-05 | 1.050E-02    |
| 2148 | 3.031E+05            | 3.829E-05 | 9.991E-03    |
| 2149 | 3.031E+05            | 3.642E-05 | 9.504E-03    |
| 2150 | 3.031E+05            | 3.465E-05 | 9.040E-03    |
| 2151 | 3.031E+05            | 3.296E-05 | 8.600E-03    |
| 2152 | 3.031E+05            | 3.135E-05 | 8.180E-03    |
| 2153 | 3.031E+05            | 2.982E-05 | 7.781E-03    |
| 2154 | 3.031E+05            | 2.837E-05 | 7.402E-03    |
| 2155 | 3.031E+05            | 2.698E-05 | 7.041E-03    |
| 2156 | 3.031E+05            | 2.567E-05 | 6.697E-03    |
| 2157 | 3.031E+05            | 2.441E-05 | 6.371E-03    |
| 2158 | 3.031E+05            | 2.322E-05 | 6.060E-03    |

continued

Table D-15. Emission Rate of Toluene from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 2.209E-05 | 5.764E-03    |
| 2160 | 3.031E+05            | 2.101E-05 | 5.483E-03    |
| 2161 | 3.031E+05            | 1.999E-05 | 5.216E-03    |
| 2162 | 3.031E+05            | 1.901E-05 | 4.962E-03    |
| 2163 | 3.031E+05            | 1.809E-05 | 4.720E-03    |
| 2164 | 3.031E+05            | 1.720E-05 | 4.489E-03    |
| 2165 | 3.031E+05            | 1.637E-05 | 4.270E-03    |
| 2166 | 3.031E+05            | 1.557E-05 | 4.062E-03    |
| 2167 | 3.031E+05            | 1.481E-05 | 3.864E-03    |
| 2168 | 3.031E+05            | 1.409E-05 | 3.676E-03    |
| 2169 | 3.031E+05            | 1.340E-05 | 3.496E-03    |
| 2170 | 3.031E+05            | 1.275E-05 | 3.326E-03    |
| 2171 | 3.031E+05            | 1.212E-05 | 3.164E-03    |
| 2172 | 3.031E+05            | 1.153E-05 | 3.009E-03    |
| 2173 | 3.031E+05            | 1.097E-05 | 2.863E-03    |
| 2174 | 3.031E+05            | 1.044E-05 | 2.723E-03    |
| 2175 | 3.031E+05            | 9.926E-06 | 2.590E-03    |
| 2176 | 3.031E+05            | 9.442E-06 | 2.464E-03    |
| 2177 | 3.031E+05            | 8.982E-06 | 2.344E-03    |
| 2178 | 3.031E+05            | 8.544E-06 | 2.229E-03    |
| 2179 | 3.031E+05            | 8.127E-06 | 2.121E-03    |
| 2180 | 3.031E+05            | 7.731E-06 | 2.017E-03    |
| 2181 | 3.031E+05            | 7.354E-06 | 1.919E-03    |
| 2182 | 3.031E+05            | 6.995E-06 | 1.825E-03    |
| 2183 | 3.031E+05            | 6.654E-06 | 1.736E-03    |
| 2184 | 3.031E+05            | 6.329E-06 | 1.652E-03    |
| 2185 | 3.031E+05            | 6.021E-06 | 1.571E-03    |
| 2186 | 3.031E+05            | 5.727E-06 | 1.494E-03    |
| 2187 | 3.031E+05            | 5.448E-06 | 1.422E-03    |
| 2188 | 3.031E+05            | 5.182E-06 | 1.352E-03    |
| 2189 | 3.031E+05            | 4.929E-06 | 1.286E-03    |
| 2190 | 3.031E+05            | 4.689E-06 | 1.223E-03    |
| 2191 | 3.031E+05            | 4.460E-06 | 1.164E-03    |
| 2192 | 3.031E+05            | 4.243E-06 | 1.107E-03    |
| 2193 | 3.031E+05            | 4.036E-06 | 1.053E-03    |
| 2194 | 3.031E+05            | 3.839E-06 | 1.002E-03    |
| 2195 | 3.031E+05            | 3.652E-06 | 9.529E-04    |
| 2196 | 3.031E+05            | 3.474E-06 | 9.064E-04    |
| 2197 | 3.031E+05            | 3.304E-06 | 8.622E-04    |
| 2198 | 3.031E+05            | 3.143E-06 | 8.201E-04    |
| 2199 | 3.031E+05            | 2.990E-06 | 7.801E-04    |
| 2200 | 3.031E+05            | 2.844E-06 | 7.421E-04    |
| 2201 | 3.031E+05            | 2.705E-06 | 7.059E-04    |
| 2202 | 3.031E+05            | 2.573E-06 | 6.715E-04    |
| 2203 | 3.031E+05            | 2.448E-06 | 6.387E-04    |

Table D-16. Emission Rate of Trichloroethene from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA1.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Trichloroethene (HAP/VOC)
Molecular Wt = 131.38      Concentration =      0.590000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      Trichloroethene (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      1.298E-03      2.375E-01
1976      6.063E+04      2.533E-03      4.635E-01
1977      9.094E+04      3.707E-03      6.784E-01
1978      1.213E+05      4.824E-03      8.828E-01
1979      1.516E+05      5.887E-03      1.077E+00
1980      1.819E+05      6.898E-03      1.262E+00
1981      2.122E+05      7.859E-03      1.438E+00
1982      2.425E+05      8.774E-03      1.606E+00
1983      2.728E+05      9.644E-03      1.765E+00
1984      3.031E+05      1.047E-02      1.916E+00
1985      3.031E+05      9.961E-03      1.823E+00
1986      3.031E+05      9.475E-03      1.734E+00
1987      3.031E+05      9.013E-03      1.649E+00
1988      3.031E+05      8.574E-03      1.569E+00
1989      3.031E+05      8.155E-03      1.492E+00
1990      3.031E+05      7.758E-03      1.420E+00
1991      3.031E+05      7.379E-03      1.350E+00
1992      3.031E+05      7.019E-03      1.285E+00
1993      3.031E+05      6.677E-03      1.222E+00
1994      3.031E+05      6.351E-03      1.162E+00
1995      3.031E+05      6.042E-03      1.106E+00
1996      3.031E+05      5.747E-03      1.052E+00
1997      3.031E+05      5.467E-03      1.000E+00
1998      3.031E+05      5.200E-03      9.516E-01
1999      3.031E+05      4.946E-03      9.052E-01
2000      3.031E+05      4.705E-03      8.611E-01
2001      3.031E+05      4.476E-03      8.191E-01
2002      3.031E+05      4.257E-03      7.791E-01
2003      3.031E+05      4.050E-03      7.411E-01
2004      3.031E+05      3.852E-03      7.050E-01
2005      3.031E+05      3.664E-03      6.706E-01
2006      3.031E+05      3.486E-03      6.379E-01
2007      3.031E+05      3.316E-03      6.068E-01
2008      3.031E+05      3.154E-03      5.772E-01
2009      3.031E+05      3.000E-03      5.490E-01
2010      3.031E+05      2.854E-03      5.223E-01
2011      3.031E+05      2.715E-03      4.968E-01
2012      3.031E+05      2.582E-03      4.726E-01
2013      3.031E+05      2.456E-03      4.495E-01
2014      3.031E+05      2.337E-03      4.276E-01
2015      3.031E+05      2.223E-03      4.067E-01
2016      3.031E+05      2.114E-03      3.869E-01
2017      3.031E+05      2.011E-03      3.680E-01
2018      3.031E+05      1.913E-03      3.501E-01
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continued

Table D-16. Emission Rate of Trichloroethene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 1.820E-03 | 3.330E-01    |
| 2020 | 3.031E+05            | 1.731E-03 | 3.168E-01    |
| 2021 | 3.031E+05            | 1.647E-03 | 3.013E-01    |
| 2022 | 3.031E+05            | 1.566E-03 | 2.866E-01    |
| 2023 | 3.031E+05            | 1.490E-03 | 2.726E-01    |
| 2024 | 3.031E+05            | 1.417E-03 | 2.593E-01    |
| 2025 | 3.031E+05            | 1.348E-03 | 2.467E-01    |
| 2026 | 3.031E+05            | 1.282E-03 | 2.347E-01    |
| 2027 | 3.031E+05            | 1.220E-03 | 2.232E-01    |
| 2028 | 3.031E+05            | 1.160E-03 | 2.123E-01    |
| 2029 | 3.031E+05            | 1.104E-03 | 2.020E-01    |
| 2030 | 3.031E+05            | 1.050E-03 | 1.921E-01    |
| 2031 | 3.031E+05            | 9.987E-04 | 1.828E-01    |
| 2032 | 3.031E+05            | 9.500E-04 | 1.738E-01    |
| 2033 | 3.031E+05            | 9.036E-04 | 1.654E-01    |
| 2034 | 3.031E+05            | 8.596E-04 | 1.573E-01    |
| 2035 | 3.031E+05            | 8.176E-04 | 1.496E-01    |
| 2036 | 3.031E+05            | 7.778E-04 | 1.423E-01    |
| 2037 | 3.031E+05            | 7.398E-04 | 1.354E-01    |
| 2038 | 3.031E+05            | 7.038E-04 | 1.288E-01    |
| 2039 | 3.031E+05            | 6.694E-04 | 1.225E-01    |
| 2040 | 3.031E+05            | 6.368E-04 | 1.165E-01    |
| 2041 | 3.031E+05            | 6.057E-04 | 1.108E-01    |
| 2042 | 3.031E+05            | 5.762E-04 | 1.054E-01    |
| 2043 | 3.031E+05            | 5.481E-04 | 1.003E-01    |
| 2044 | 3.031E+05            | 5.214E-04 | 9.541E-02    |
| 2045 | 3.031E+05            | 4.959E-04 | 9.076E-02    |
| 2046 | 3.031E+05            | 4.717E-04 | 8.633E-02    |
| 2047 | 3.031E+05            | 4.487E-04 | 8.212E-02    |
| 2048 | 3.031E+05            | 4.268E-04 | 7.811E-02    |
| 2049 | 3.031E+05            | 4.060E-04 | 7.430E-02    |
| 2050 | 3.031E+05            | 3.862E-04 | 7.068E-02    |
| 2051 | 3.031E+05            | 3.674E-04 | 6.723E-02    |
| 2052 | 3.031E+05            | 3.495E-04 | 6.395E-02    |
| 2053 | 3.031E+05            | 3.324E-04 | 6.084E-02    |
| 2054 | 3.031E+05            | 3.162E-04 | 5.787E-02    |
| 2055 | 3.031E+05            | 3.008E-04 | 5.505E-02    |
| 2056 | 3.031E+05            | 2.861E-04 | 5.236E-02    |
| 2057 | 3.031E+05            | 2.722E-04 | 4.981E-02    |
| 2058 | 3.031E+05            | 2.589E-04 | 4.738E-02    |
| 2059 | 3.031E+05            | 2.463E-04 | 4.507E-02    |
| 2060 | 3.031E+05            | 2.343E-04 | 4.287E-02    |
| 2061 | 3.031E+05            | 2.228E-04 | 4.078E-02    |
| 2062 | 3.031E+05            | 2.120E-04 | 3.879E-02    |
| 2063 | 3.031E+05            | 2.016E-04 | 3.690E-02    |
| 2064 | 3.031E+05            | 1.918E-04 | 3.510E-02    |
| 2065 | 3.031E+05            | 1.824E-04 | 3.339E-02    |
| 2066 | 3.031E+05            | 1.735E-04 | 3.176E-02    |
| 2067 | 3.031E+05            | 1.651E-04 | 3.021E-02    |
| 2068 | 3.031E+05            | 1.570E-04 | 2.874E-02    |
| 2069 | 3.031E+05            | 1.494E-04 | 2.733E-02    |
| 2070 | 3.031E+05            | 1.421E-04 | 2.600E-02    |
| 2071 | 3.031E+05            | 1.352E-04 | 2.473E-02    |
| 2072 | 3.031E+05            | 1.286E-04 | 2.353E-02    |
| 2073 | 3.031E+05            | 1.223E-04 | 2.238E-02    |
| 2074 | 3.031E+05            | 1.163E-04 | 2.129E-02    |
| 2075 | 3.031E+05            | 1.107E-04 | 2.025E-02    |
| 2076 | 3.031E+05            | 1.053E-04 | 1.926E-02    |
| 2077 | 3.031E+05            | 1.001E-04 | 1.832E-02    |
| 2078 | 3.031E+05            | 9.524E-05 | 1.743E-02    |
| 2079 | 3.031E+05            | 9.060E-05 | 1.658E-02    |
| 2080 | 3.031E+05            | 8.618E-05 | 1.577E-02    |
| 2081 | 3.031E+05            | 8.198E-05 | 1.500E-02    |
| 2082 | 3.031E+05            | 7.798E-05 | 1.427E-02    |
| 2083 | 3.031E+05            | 7.418E-05 | 1.357E-02    |
| 2084 | 3.031E+05            | 7.056E-05 | 1.291E-02    |
| 2085 | 3.031E+05            | 6.712E-05 | 1.228E-02    |
| 2086 | 3.031E+05            | 6.384E-05 | 1.168E-02    |
| 2087 | 3.031E+05            | 6.073E-05 | 1.111E-02    |
| 2088 | 3.031E+05            | 5.777E-05 | 1.057E-02    |

continued



Table D-16. Emission Rate of Trichloroethene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 5.495E-05 | 1.006E-02    |
| 2090 | 3.031E+05            | 5.227E-05 | 9.566E-03    |
| 2091 | 3.031E+05            | 4.972E-05 | 9.099E-03    |
| 2092 | 3.031E+05            | 4.730E-05 | 8.655E-03    |
| 2093 | 3.031E+05            | 4.499E-05 | 8.233E-03    |
| 2094 | 3.031E+05            | 4.280E-05 | 7.832E-03    |
| 2095 | 3.031E+05            | 4.071E-05 | 7.450E-03    |
| 2096 | 3.031E+05            | 3.872E-05 | 7.086E-03    |
| 2097 | 3.031E+05            | 3.683E-05 | 6.741E-03    |
| 2098 | 3.031E+05            | 3.504E-05 | 6.412E-03    |
| 2099 | 3.031E+05            | 3.333E-05 | 6.099E-03    |
| 2100 | 3.031E+05            | 3.170E-05 | 5.802E-03    |
| 2101 | 3.031E+05            | 3.016E-05 | 5.519E-03    |
| 2102 | 3.031E+05            | 2.869E-05 | 5.250E-03    |
| 2103 | 3.031E+05            | 2.729E-05 | 4.994E-03    |
| 2104 | 3.031E+05            | 2.596E-05 | 4.750E-03    |
| 2105 | 3.031E+05            | 2.469E-05 | 4.518E-03    |
| 2106 | 3.031E+05            | 2.349E-05 | 4.298E-03    |
| 2107 | 3.031E+05            | 2.234E-05 | 4.088E-03    |
| 2108 | 3.031E+05            | 2.125E-05 | 3.889E-03    |
| 2109 | 3.031E+05            | 2.022E-05 | 3.699E-03    |
| 2110 | 3.031E+05            | 1.923E-05 | 3.519E-03    |
| 2111 | 3.031E+05            | 1.829E-05 | 3.347E-03    |
| 2112 | 3.031E+05            | 1.740E-05 | 3.184E-03    |
| 2113 | 3.031E+05            | 1.655E-05 | 3.029E-03    |
| 2114 | 3.031E+05            | 1.574E-05 | 2.881E-03    |
| 2115 | 3.031E+05            | 1.498E-05 | 2.741E-03    |
| 2116 | 3.031E+05            | 1.425E-05 | 2.607E-03    |
| 2117 | 3.031E+05            | 1.355E-05 | 2.480E-03    |
| 2118 | 3.031E+05            | 1.289E-05 | 2.359E-03    |
| 2119 | 3.031E+05            | 1.226E-05 | 2.244E-03    |
| 2120 | 3.031E+05            | 1.166E-05 | 2.134E-03    |
| 2121 | 3.031E+05            | 1.109E-05 | 2.030E-03    |
| 2122 | 3.031E+05            | 1.055E-05 | 1.931E-03    |
| 2123 | 3.031E+05            | 1.004E-05 | 1.837E-03    |
| 2124 | 3.031E+05            | 9.549E-06 | 1.747E-03    |
| 2125 | 3.031E+05            | 9.083E-06 | 1.662E-03    |
| 2126 | 3.031E+05            | 8.640E-06 | 1.581E-03    |
| 2127 | 3.031E+05            | 8.219E-06 | 1.504E-03    |
| 2128 | 3.031E+05            | 7.818E-06 | 1.431E-03    |
| 2129 | 3.031E+05            | 7.437E-06 | 1.361E-03    |
| 2130 | 3.031E+05            | 7.074E-06 | 1.295E-03    |
| 2131 | 3.031E+05            | 6.729E-06 | 1.231E-03    |
| 2132 | 3.031E+05            | 6.401E-06 | 1.171E-03    |
| 2133 | 3.031E+05            | 6.089E-06 | 1.114E-03    |
| 2134 | 3.031E+05            | 5.792E-06 | 1.060E-03    |
| 2135 | 3.031E+05            | 5.509E-06 | 1.008E-03    |
| 2136 | 3.031E+05            | 5.241E-06 | 9.590E-04    |
| 2137 | 3.031E+05            | 4.985E-06 | 9.123E-04    |
| 2138 | 3.031E+05            | 4.742E-06 | 8.678E-04    |
| 2139 | 3.031E+05            | 4.511E-06 | 8.254E-04    |
| 2140 | 3.031E+05            | 4.291E-06 | 7.852E-04    |
| 2141 | 3.031E+05            | 4.081E-06 | 7.469E-04    |
| 2142 | 3.031E+05            | 3.882E-06 | 7.105E-04    |
| 2143 | 3.031E+05            | 3.693E-06 | 6.758E-04    |
| 2144 | 3.031E+05            | 3.513E-06 | 6.429E-04    |
| 2145 | 3.031E+05            | 3.342E-06 | 6.115E-04    |
| 2146 | 3.031E+05            | 3.179E-06 | 5.817E-04    |
| 2147 | 3.031E+05            | 3.024E-06 | 5.533E-04    |
| 2148 | 3.031E+05            | 2.876E-06 | 5.263E-04    |
| 2149 | 3.031E+05            | 2.736E-06 | 5.007E-04    |
| 2150 | 3.031E+05            | 2.602E-06 | 4.762E-04    |
| 2151 | 3.031E+05            | 2.475E-06 | 4.530E-04    |
| 2152 | 3.031E+05            | 2.355E-06 | 4.309E-04    |
| 2153 | 3.031E+05            | 2.240E-06 | 4.099E-04    |
| 2154 | 3.031E+05            | 2.131E-06 | 3.899E-04    |
| 2155 | 3.031E+05            | 2.027E-06 | 3.709E-04    |
| 2156 | 3.031E+05            | 1.928E-06 | 3.528E-04    |
| 2157 | 3.031E+05            | 1.834E-06 | 3.356E-04    |
| 2158 | 3.031E+05            | 1.744E-06 | 3.192E-04    |

continued

Table D-16. Emission Rate of Trichloroethene from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 1.659E-06 | 3.037E-04    |
| 2160 | 3.031E+05            | 1.578E-06 | 2.889E-04    |
| 2161 | 3.031E+05            | 1.501E-06 | 2.748E-04    |
| 2162 | 3.031E+05            | 1.428E-06 | 2.614E-04    |
| 2163 | 3.031E+05            | 1.359E-06 | 2.486E-04    |
| 2164 | 3.031E+05            | 1.292E-06 | 2.365E-04    |
| 2165 | 3.031E+05            | 1.229E-06 | 2.250E-04    |
| 2166 | 3.031E+05            | 1.169E-06 | 2.140E-04    |
| 2167 | 3.031E+05            | 1.112E-06 | 2.036E-04    |
| 2168 | 3.031E+05            | 1.058E-06 | 1.936E-04    |
| 2169 | 3.031E+05            | 1.006E-06 | 1.842E-04    |
| 2170 | 3.031E+05            | 9.574E-07 | 1.752E-04    |
| 2171 | 3.031E+05            | 9.107E-07 | 1.667E-04    |
| 2172 | 3.031E+05            | 8.663E-07 | 1.585E-04    |
| 2173 | 3.031E+05            | 8.240E-07 | 1.508E-04    |
| 2174 | 3.031E+05            | 7.838E-07 | 1.434E-04    |
| 2175 | 3.031E+05            | 7.456E-07 | 1.364E-04    |
| 2176 | 3.031E+05            | 7.092E-07 | 1.298E-04    |
| 2177 | 3.031E+05            | 6.746E-07 | 1.235E-04    |
| 2178 | 3.031E+05            | 6.417E-07 | 1.174E-04    |
| 2179 | 3.031E+05            | 6.104E-07 | 1.117E-04    |
| 2180 | 3.031E+05            | 5.807E-07 | 1.063E-04    |
| 2181 | 3.031E+05            | 5.524E-07 | 1.011E-04    |
| 2182 | 3.031E+05            | 5.254E-07 | 9.615E-05    |
| 2183 | 3.031E+05            | 4.998E-07 | 9.146E-05    |
| 2184 | 3.031E+05            | 4.754E-07 | 8.700E-05    |
| 2185 | 3.031E+05            | 4.522E-07 | 8.276E-05    |
| 2186 | 3.031E+05            | 4.302E-07 | 7.872E-05    |
| 2187 | 3.031E+05            | 4.092E-07 | 7.488E-05    |
| 2188 | 3.031E+05            | 3.892E-07 | 7.123E-05    |
| 2189 | 3.031E+05            | 3.703E-07 | 6.776E-05    |
| 2190 | 3.031E+05            | 3.522E-07 | 6.445E-05    |
| 2191 | 3.031E+05            | 3.350E-07 | 6.131E-05    |
| 2192 | 3.031E+05            | 3.187E-07 | 5.832E-05    |
| 2193 | 3.031E+05            | 3.031E-07 | 5.547E-05    |
| 2194 | 3.031E+05            | 2.884E-07 | 5.277E-05    |
| 2195 | 3.031E+05            | 2.743E-07 | 5.020E-05    |
| 2196 | 3.031E+05            | 2.609E-07 | 4.775E-05    |
| 2197 | 3.031E+05            | 2.482E-07 | 4.542E-05    |
| 2198 | 3.031E+05            | 2.361E-07 | 4.320E-05    |
| 2199 | 3.031E+05            | 2.246E-07 | 4.110E-05    |
| 2200 | 3.031E+05            | 2.136E-07 | 3.909E-05    |
| 2201 | 3.031E+05            | 2.032E-07 | 3.719E-05    |
| 2202 | 3.031E+05            | 1.933E-07 | 3.537E-05    |
| 2203 | 3.031E+05            | 1.839E-07 | 3.365E-05    |

Table D-17. Emission Rate of Vinyl Chloride from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA1.PRM

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=====
                          Model Parameters
=====

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Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Vinyl Chloride (HAP/VOC)
Molecular Wt = 62.50      Concentration = 2.660000 ppmV

```

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=====
                          Landfill Parameters
=====

```

```

Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year

```

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=====
                          Model Results
=====

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| Year | Refuse In Place (Mg) | Vinyl Chloride (HAP/VOC) Emission Rate (Mg/yr) | (Cubic m/yr) |
|------|----------------------|--|--------------|
| 1975 | 3.031E+04            | 2.784E-03                                      | 1.071E+00    |
| 1976 | 6.063E+04            | 5.432E-03                                      | 2.090E+00    |
| 1977 | 9.094E+04            | 7.951E-03                                      | 3.059E+00    |
| 1978 | 1.213E+05            | 1.035E-02                                      | 3.980E+00    |
| 1979 | 1.516E+05            | 1.263E-02                                      | 4.857E+00    |
| 1980 | 1.819E+05            | 1.479E-02                                      | 5.691E+00    |
| 1981 | 2.122E+05            | 1.686E-02                                      | 6.484E+00    |
| 1982 | 2.425E+05            | 1.882E-02                                      | 7.239E+00    |
| 1983 | 2.728E+05            | 2.068E-02                                      | 7.957E+00    |
| 1984 | 3.031E+05            | 2.246E-02                                      | 8.640E+00    |
| 1985 | 3.031E+05            | 2.136E-02                                      | 8.218E+00    |
| 1986 | 3.031E+05            | 2.032E-02                                      | 7.818E+00    |
| 1987 | 3.031E+05            | 1.933E-02                                      | 7.436E+00    |
| 1988 | 3.031E+05            | 1.839E-02                                      | 7.074E+00    |
| 1989 | 3.031E+05            | 1.749E-02                                      | 6.729E+00    |
| 1990 | 3.031E+05            | 1.664E-02                                      | 6.400E+00    |
| 1991 | 3.031E+05            | 1.583E-02                                      | 6.088E+00    |
| 1992 | 3.031E+05            | 1.505E-02                                      | 5.791E+00    |
| 1993 | 3.031E+05            | 1.432E-02                                      | 5.509E+00    |
| 1994 | 3.031E+05            | 1.362E-02                                      | 5.240E+00    |
| 1995 | 3.031E+05            | 1.296E-02                                      | 4.985E+00    |
| 1996 | 3.031E+05            | 1.233E-02                                      | 4.742E+00    |
| 1997 | 3.031E+05            | 1.172E-02                                      | 4.510E+00    |
| 1998 | 3.031E+05            | 1.115E-02                                      | 4.290E+00    |
| 1999 | 3.031E+05            | 1.061E-02                                      | 4.081E+00    |
| 2000 | 3.031E+05            | 1.009E-02                                      | 3.882E+00    |
| 2001 | 3.031E+05            | 9.599E-03                                      | 3.693E+00    |
| 2002 | 3.031E+05            | 9.131E-03                                      | 3.513E+00    |
| 2003 | 3.031E+05            | 8.686E-03                                      | 3.341E+00    |
| 2004 | 3.031E+05            | 8.262E-03                                      | 3.178E+00    |
| 2005 | 3.031E+05            | 7.859E-03                                      | 3.023E+00    |
| 2006 | 3.031E+05            | 7.476E-03                                      | 2.876E+00    |
| 2007 | 3.031E+05            | 7.111E-03                                      | 2.736E+00    |
| 2008 | 3.031E+05            | 6.765E-03                                      | 2.602E+00    |
| 2009 | 3.031E+05            | 6.435E-03                                      | 2.475E+00    |
| 2010 | 3.031E+05            | 6.121E-03                                      | 2.355E+00    |
| 2011 | 3.031E+05            | 5.822E-03                                      | 2.240E+00    |
| 2012 | 3.031E+05            | 5.538E-03                                      | 2.131E+00    |
| 2013 | 3.031E+05            | 5.268E-03                                      | 2.027E+00    |
| 2014 | 3.031E+05            | 5.011E-03                                      | 1.928E+00    |
| 2015 | 3.031E+05            | 4.767E-03                                      | 1.834E+00    |
| 2016 | 3.031E+05            | 4.534E-03                                      | 1.744E+00    |
| 2017 | 3.031E+05            | 4.313E-03                                      | 1.659E+00    |
| 2018 | 3.031E+05            | 4.103E-03                                      | 1.578E+00    |

continued

Table D-17. Emission Rate of Vinyl Chloride from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 3.903E-03 | 1.501E+00    |
| 2020 | 3.031E+05            | 3.713E-03 | 1.428E+00    |
| 2021 | 3.031E+05            | 3.531E-03 | 1.358E+00    |
| 2022 | 3.031E+05            | 3.359E-03 | 1.292E+00    |
| 2023 | 3.031E+05            | 3.195E-03 | 1.229E+00    |
| 2024 | 3.031E+05            | 3.040E-03 | 1.169E+00    |
| 2025 | 3.031E+05            | 2.891E-03 | 1.112E+00    |
| 2026 | 3.031E+05            | 2.750E-03 | 1.058E+00    |
| 2027 | 3.031E+05            | 2.616E-03 | 1.006E+00    |
| 2028 | 3.031E+05            | 2.489E-03 | 9.573E-01    |
| 2029 | 3.031E+05            | 2.367E-03 | 9.106E-01    |
| 2030 | 3.031E+05            | 2.252E-03 | 8.662E-01    |
| 2031 | 3.031E+05            | 2.142E-03 | 8.240E-01    |
| 2032 | 3.031E+05            | 2.037E-03 | 7.838E-01    |
| 2033 | 3.031E+05            | 1.938E-03 | 7.456E-01    |
| 2034 | 3.031E+05            | 1.844E-03 | 7.092E-01    |
| 2035 | 3.031E+05            | 1.754E-03 | 6.746E-01    |
| 2036 | 3.031E+05            | 1.668E-03 | 6.417E-01    |
| 2037 | 3.031E+05            | 1.587E-03 | 6.104E-01    |
| 2038 | 3.031E+05            | 1.509E-03 | 5.806E-01    |
| 2039 | 3.031E+05            | 1.436E-03 | 5.523E-01    |
| 2040 | 3.031E+05            | 1.366E-03 | 5.254E-01    |
| 2041 | 3.031E+05            | 1.299E-03 | 4.998E-01    |
| 2042 | 3.031E+05            | 1.236E-03 | 4.754E-01    |
| 2043 | 3.031E+05            | 1.176E-03 | 4.522E-01    |
| 2044 | 3.031E+05            | 1.118E-03 | 4.301E-01    |
| 2045 | 3.031E+05            | 1.064E-03 | 4.092E-01    |
| 2046 | 3.031E+05            | 1.012E-03 | 3.892E-01    |
| 2047 | 3.031E+05            | 9.624E-04 | 3.702E-01    |
| 2048 | 3.031E+05            | 9.155E-04 | 3.522E-01    |
| 2049 | 3.031E+05            | 8.708E-04 | 3.350E-01    |
| 2050 | 3.031E+05            | 8.284E-04 | 3.187E-01    |
| 2051 | 3.031E+05            | 7.880E-04 | 3.031E-01    |
| 2052 | 3.031E+05            | 7.495E-04 | 2.883E-01    |
| 2053 | 3.031E+05            | 7.130E-04 | 2.743E-01    |
| 2054 | 3.031E+05            | 6.782E-04 | 2.609E-01    |
| 2055 | 3.031E+05            | 6.451E-04 | 2.482E-01    |
| 2056 | 3.031E+05            | 6.137E-04 | 2.361E-01    |
| 2057 | 3.031E+05            | 5.837E-04 | 2.246E-01    |
| 2058 | 3.031E+05            | 5.553E-04 | 2.136E-01    |
| 2059 | 3.031E+05            | 5.282E-04 | 2.032E-01    |
| 2060 | 3.031E+05            | 5.024E-04 | 1.933E-01    |
| 2061 | 3.031E+05            | 4.779E-04 | 1.839E-01    |
| 2062 | 3.031E+05            | 4.546E-04 | 1.749E-01    |
| 2063 | 3.031E+05            | 4.324E-04 | 1.664E-01    |
| 2064 | 3.031E+05            | 4.114E-04 | 1.582E-01    |
| 2065 | 3.031E+05            | 3.913E-04 | 1.505E-01    |
| 2066 | 3.031E+05            | 3.722E-04 | 1.432E-01    |
| 2067 | 3.031E+05            | 3.541E-04 | 1.362E-01    |
| 2068 | 3.031E+05            | 3.368E-04 | 1.296E-01    |
| 2069 | 3.031E+05            | 3.204E-04 | 1.232E-01    |
| 2070 | 3.031E+05            | 3.047E-04 | 1.172E-01    |
| 2071 | 3.031E+05            | 2.899E-04 | 1.115E-01    |
| 2072 | 3.031E+05            | 2.757E-04 | 1.061E-01    |
| 2073 | 3.031E+05            | 2.623E-04 | 1.009E-01    |
| 2074 | 3.031E+05            | 2.495E-04 | 9.598E-02    |
| 2075 | 3.031E+05            | 2.373E-04 | 9.130E-02    |
| 2076 | 3.031E+05            | 2.258E-04 | 8.685E-02    |
| 2077 | 3.031E+05            | 2.147E-04 | 8.261E-02    |
| 2078 | 3.031E+05            | 2.043E-04 | 7.858E-02    |
| 2079 | 3.031E+05            | 1.943E-04 | 7.475E-02    |
| 2080 | 3.031E+05            | 1.848E-04 | 7.110E-02    |
| 2081 | 3.031E+05            | 1.758E-04 | 6.764E-02    |
| 2082 | 3.031E+05            | 1.672E-04 | 6.434E-02    |
| 2083 | 3.031E+05            | 1.591E-04 | 6.120E-02    |
| 2084 | 3.031E+05            | 1.513E-04 | 5.821E-02    |
| 2085 | 3.031E+05            | 1.439E-04 | 5.537E-02    |
| 2086 | 3.031E+05            | 1.369E-04 | 5.267E-02    |
| 2087 | 3.031E+05            | 1.303E-04 | 5.011E-02    |
| 2088 | 3.031E+05            | 1.239E-04 | 4.766E-02    |

continued

Table D-17. Emission Rate of Vinyl Chloride from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 1.179E-04 | 4.534E-02    |
| 2090 | 3.031E+05            | 1.121E-04 | 4.313E-02    |
| 2091 | 3.031E+05            | 1.066E-04 | 4.102E-02    |
| 2092 | 3.031E+05            | 1.014E-04 | 3.902E-02    |
| 2093 | 3.031E+05            | 9.649E-05 | 3.712E-02    |
| 2094 | 3.031E+05            | 9.179E-05 | 3.531E-02    |
| 2095 | 3.031E+05            | 8.731E-05 | 3.359E-02    |
| 2096 | 3.031E+05            | 8.305E-05 | 3.195E-02    |
| 2097 | 3.031E+05            | 7.900E-05 | 3.039E-02    |
| 2098 | 3.031E+05            | 7.515E-05 | 2.891E-02    |
| 2099 | 3.031E+05            | 7.148E-05 | 2.750E-02    |
| 2100 | 3.031E+05            | 6.800E-05 | 2.616E-02    |
| 2101 | 3.031E+05            | 6.468E-05 | 2.488E-02    |
| 2102 | 3.031E+05            | 6.153E-05 | 2.367E-02    |
| 2103 | 3.031E+05            | 5.853E-05 | 2.251E-02    |
| 2104 | 3.031E+05            | 5.567E-05 | 2.142E-02    |
| 2105 | 3.031E+05            | 5.296E-05 | 2.037E-02    |
| 2106 | 3.031E+05            | 5.037E-05 | 1.938E-02    |
| 2107 | 3.031E+05            | 4.792E-05 | 1.843E-02    |
| 2108 | 3.031E+05            | 4.558E-05 | 1.753E-02    |
| 2109 | 3.031E+05            | 4.336E-05 | 1.668E-02    |
| 2110 | 3.031E+05            | 4.124E-05 | 1.587E-02    |
| 2111 | 3.031E+05            | 3.923E-05 | 1.509E-02    |
| 2112 | 3.031E+05            | 3.732E-05 | 1.436E-02    |
| 2113 | 3.031E+05            | 3.550E-05 | 1.366E-02    |
| 2114 | 3.031E+05            | 3.377E-05 | 1.299E-02    |
| 2115 | 3.031E+05            | 3.212E-05 | 1.236E-02    |
| 2116 | 3.031E+05            | 3.055E-05 | 1.175E-02    |
| 2117 | 3.031E+05            | 2.906E-05 | 1.118E-02    |
| 2118 | 3.031E+05            | 2.765E-05 | 1.063E-02    |
| 2119 | 3.031E+05            | 2.630E-05 | 1.012E-02    |
| 2120 | 3.031E+05            | 2.501E-05 | 9.623E-03    |
| 2121 | 3.031E+05            | 2.379E-05 | 9.153E-03    |
| 2122 | 3.031E+05            | 2.263E-05 | 8.707E-03    |
| 2123 | 3.031E+05            | 2.153E-05 | 8.282E-03    |
| 2124 | 3.031E+05            | 2.048E-05 | 7.878E-03    |
| 2125 | 3.031E+05            | 1.948E-05 | 7.494E-03    |
| 2126 | 3.031E+05            | 1.853E-05 | 7.129E-03    |
| 2127 | 3.031E+05            | 1.763E-05 | 6.781E-03    |
| 2128 | 3.031E+05            | 1.677E-05 | 6.450E-03    |
| 2129 | 3.031E+05            | 1.595E-05 | 6.136E-03    |
| 2130 | 3.031E+05            | 1.517E-05 | 5.836E-03    |
| 2131 | 3.031E+05            | 1.443E-05 | 5.552E-03    |
| 2132 | 3.031E+05            | 1.373E-05 | 5.281E-03    |
| 2133 | 3.031E+05            | 1.306E-05 | 5.023E-03    |
| 2134 | 3.031E+05            | 1.242E-05 | 4.778E-03    |
| 2135 | 3.031E+05            | 1.182E-05 | 4.545E-03    |
| 2136 | 3.031E+05            | 1.124E-05 | 4.324E-03    |
| 2137 | 3.031E+05            | 1.069E-05 | 4.113E-03    |
| 2138 | 3.031E+05            | 1.017E-05 | 3.912E-03    |
| 2139 | 3.031E+05            | 9.674E-06 | 3.721E-03    |
| 2140 | 3.031E+05            | 9.202E-06 | 3.540E-03    |
| 2141 | 3.031E+05            | 8.754E-06 | 3.367E-03    |
| 2142 | 3.031E+05            | 8.327E-06 | 3.203E-03    |
| 2143 | 3.031E+05            | 7.921E-06 | 3.047E-03    |
| 2144 | 3.031E+05            | 7.534E-06 | 2.898E-03    |
| 2145 | 3.031E+05            | 7.167E-06 | 2.757E-03    |
| 2146 | 3.031E+05            | 6.817E-06 | 2.622E-03    |
| 2147 | 3.031E+05            | 6.485E-06 | 2.495E-03    |
| 2148 | 3.031E+05            | 6.169E-06 | 2.373E-03    |
| 2149 | 3.031E+05            | 5.868E-06 | 2.257E-03    |
| 2150 | 3.031E+05            | 5.582E-06 | 2.147E-03    |
| 2151 | 3.031E+05            | 5.309E-06 | 2.042E-03    |
| 2152 | 3.031E+05            | 5.050E-06 | 1.943E-03    |
| 2153 | 3.031E+05            | 4.804E-06 | 1.848E-03    |
| 2154 | 3.031E+05            | 4.570E-06 | 1.758E-03    |
| 2155 | 3.031E+05            | 4.347E-06 | 1.672E-03    |
| 2156 | 3.031E+05            | 4.135E-06 | 1.591E-03    |
| 2157 | 3.031E+05            | 3.933E-06 | 1.513E-03    |
| 2158 | 3.031E+05            | 3.741E-06 | 1.439E-03    |

continued

Table D-17. Emission Rate of Vinyl Chloride from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 3.559E-06 | 1.369E-03    |
| 2160 | 3.031E+05            | 3.385E-06 | 1.302E-03    |
| 2161 | 3.031E+05            | 3.220E-06 | 1.239E-03    |
| 2162 | 3.031E+05            | 3.063E-06 | 1.178E-03    |
| 2163 | 3.031E+05            | 2.914E-06 | 1.121E-03    |
| 2164 | 3.031E+05            | 2.772E-06 | 1.066E-03    |
| 2165 | 3.031E+05            | 2.637E-06 | 1.014E-03    |
| 2166 | 3.031E+05            | 2.508E-06 | 9.648E-04    |
| 2167 | 3.031E+05            | 2.386E-06 | 9.177E-04    |
| 2168 | 3.031E+05            | 2.269E-06 | 8.730E-04    |
| 2169 | 3.031E+05            | 2.159E-06 | 8.304E-04    |
| 2170 | 3.031E+05            | 2.053E-06 | 7.899E-04    |
| 2171 | 3.031E+05            | 1.953E-06 | 7.514E-04    |
| 2172 | 3.031E+05            | 1.858E-06 | 7.147E-04    |
| 2173 | 3.031E+05            | 1.767E-06 | 6.799E-04    |
| 2174 | 3.031E+05            | 1.681E-06 | 6.467E-04    |
| 2175 | 3.031E+05            | 1.599E-06 | 6.152E-04    |
| 2176 | 3.031E+05            | 1.521E-06 | 5.852E-04    |
| 2177 | 3.031E+05            | 1.447E-06 | 5.566E-04    |
| 2178 | 3.031E+05            | 1.376E-06 | 5.295E-04    |
| 2179 | 3.031E+05            | 1.309E-06 | 5.036E-04    |
| 2180 | 3.031E+05            | 1.245E-06 | 4.791E-04    |
| 2181 | 3.031E+05            | 1.185E-06 | 4.557E-04    |
| 2182 | 3.031E+05            | 1.127E-06 | 4.335E-04    |
| 2183 | 3.031E+05            | 1.072E-06 | 4.124E-04    |
| 2184 | 3.031E+05            | 1.020E-06 | 3.922E-04    |
| 2185 | 3.031E+05            | 9.699E-07 | 3.731E-04    |
| 2186 | 3.031E+05            | 9.226E-07 | 3.549E-04    |
| 2187 | 3.031E+05            | 8.776E-07 | 3.376E-04    |
| 2188 | 3.031E+05            | 8.348E-07 | 3.211E-04    |
| 2189 | 3.031E+05            | 7.941E-07 | 3.055E-04    |
| 2190 | 3.031E+05            | 7.554E-07 | 2.906E-04    |
| 2191 | 3.031E+05            | 7.185E-07 | 2.764E-04    |
| 2192 | 3.031E+05            | 6.835E-07 | 2.629E-04    |
| 2193 | 3.031E+05            | 6.502E-07 | 2.501E-04    |
| 2194 | 3.031E+05            | 6.185E-07 | 2.379E-04    |
| 2195 | 3.031E+05            | 5.883E-07 | 2.263E-04    |
| 2196 | 3.031E+05            | 5.596E-07 | 2.153E-04    |
| 2197 | 3.031E+05            | 5.323E-07 | 2.048E-04    |
| 2198 | 3.031E+05            | 5.063E-07 | 1.948E-04    |
| 2199 | 3.031E+05            | 4.817E-07 | 1.853E-04    |
| 2200 | 3.031E+05            | 4.582E-07 | 1.762E-04    |
| 2201 | 3.031E+05            | 4.358E-07 | 1.677E-04    |
| 2202 | 3.031E+05            | 4.146E-07 | 1.595E-04    |
| 2203 | 3.031E+05            | 3.943E-07 | 1.517E-04    |

Table D-18. Emission Rate of m,p-Xylene from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA1.PRM

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=====
                        Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : mpXylene (HAP/VOC)
Molecular Wt = 106.17      Concentration =      8.860000 ppmV
=====

                        Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                        Model Results
=====
Year      Refuse In Place (Mg)      mpXylene (HAP/VOC) Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      1.575E-02      3.567E+00
1976      6.063E+04      3.073E-02      6.960E+00
1977      9.094E+04      4.499E-02      1.019E+01
1978      1.213E+05      5.854E-02      1.326E+01
1979      1.516E+05      7.144E-02      1.618E+01
1980      1.819E+05      8.371E-02      1.896E+01
1981      2.122E+05      9.538E-02      2.160E+01
1982      2.425E+05      1.065E-01      2.411E+01
1983      2.728E+05      1.170E-01      2.650E+01
1984      3.031E+05      1.271E-01      2.878E+01
1985      3.031E+05      1.209E-01      2.737E+01
1986      3.031E+05      1.150E-01      2.604E+01
1987      3.031E+05      1.094E-01      2.477E+01
1988      3.031E+05      1.040E-01      2.356E+01
1989      3.031E+05      9.897E-02      2.241E+01
1990      3.031E+05      9.414E-02      2.132E+01
1991      3.031E+05      8.955E-02      2.028E+01
1992      3.031E+05      8.518E-02      1.929E+01
1993      3.031E+05      8.103E-02      1.835E+01
1994      3.031E+05      7.708E-02      1.745E+01
1995      3.031E+05      7.332E-02      1.660E+01
1996      3.031E+05      6.974E-02      1.579E+01
1997      3.031E+05      6.634E-02      1.502E+01
1998      3.031E+05      6.311E-02      1.429E+01
1999      3.031E+05      6.003E-02      1.359E+01
2000      3.031E+05      5.710E-02      1.293E+01
2001      3.031E+05      5.432E-02      1.230E+01
2002      3.031E+05      5.167E-02      1.170E+01
2003      3.031E+05      4.915E-02      1.113E+01
2004      3.031E+05      4.675E-02      1.059E+01
2005      3.031E+05      4.447E-02      1.007E+01
2006      3.031E+05      4.230E-02      9.579E+00
2007      3.031E+05      4.024E-02      9.112E+00
2008      3.031E+05      3.828E-02      8.668E+00
2009      3.031E+05      3.641E-02      8.245E+00
2010      3.031E+05      3.463E-02      7.843E+00
2011      3.031E+05      3.294E-02      7.460E+00
2012      3.031E+05      3.134E-02      7.096E+00
2013      3.031E+05      2.981E-02      6.750E+00
2014      3.031E+05      2.836E-02      6.421E+00
2015      3.031E+05      2.697E-02      6.108E+00
2016      3.031E+05      2.566E-02      5.810E+00
2017      3.031E+05      2.441E-02      5.527E+00
2018      3.031E+05      2.322E-02      5.257E+00
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continued

Table D-18. Emission Rate of m,p-Xylene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 2.208E-02 | 5.001E+00    |
| 2020 | 3.031E+05            | 2.101E-02 | 4.757E+00    |
| 2021 | 3.031E+05            | 1.998E-02 | 4.525E+00    |
| 2022 | 3.031E+05            | 1.901E-02 | 4.304E+00    |
| 2023 | 3.031E+05            | 1.808E-02 | 4.094E+00    |
| 2024 | 3.031E+05            | 1.720E-02 | 3.895E+00    |
| 2025 | 3.031E+05            | 1.636E-02 | 3.705E+00    |
| 2026 | 3.031E+05            | 1.556E-02 | 3.524E+00    |
| 2027 | 3.031E+05            | 1.480E-02 | 3.352E+00    |
| 2028 | 3.031E+05            | 1.408E-02 | 3.189E+00    |
| 2029 | 3.031E+05            | 1.339E-02 | 3.033E+00    |
| 2030 | 3.031E+05            | 1.274E-02 | 2.885E+00    |
| 2031 | 3.031E+05            | 1.212E-02 | 2.744E+00    |
| 2032 | 3.031E+05            | 1.153E-02 | 2.611E+00    |
| 2033 | 3.031E+05            | 1.097E-02 | 2.483E+00    |
| 2034 | 3.031E+05            | 1.043E-02 | 2.362E+00    |
| 2035 | 3.031E+05            | 9.922E-03 | 2.247E+00    |
| 2036 | 3.031E+05            | 9.439E-03 | 2.137E+00    |
| 2037 | 3.031E+05            | 8.978E-03 | 2.033E+00    |
| 2038 | 3.031E+05            | 8.540E-03 | 1.934E+00    |
| 2039 | 3.031E+05            | 8.124E-03 | 1.840E+00    |
| 2040 | 3.031E+05            | 7.728E-03 | 1.750E+00    |
| 2041 | 3.031E+05            | 7.351E-03 | 1.665E+00    |
| 2042 | 3.031E+05            | 6.992E-03 | 1.583E+00    |
| 2043 | 3.031E+05            | 6.651E-03 | 1.506E+00    |
| 2044 | 3.031E+05            | 6.327E-03 | 1.433E+00    |
| 2045 | 3.031E+05            | 6.018E-03 | 1.363E+00    |
| 2046 | 3.031E+05            | 5.725E-03 | 1.296E+00    |
| 2047 | 3.031E+05            | 5.446E-03 | 1.233E+00    |
| 2048 | 3.031E+05            | 5.180E-03 | 1.173E+00    |
| 2049 | 3.031E+05            | 4.927E-03 | 1.116E+00    |
| 2050 | 3.031E+05            | 4.687E-03 | 1.061E+00    |
| 2051 | 3.031E+05            | 4.458E-03 | 1.010E+00    |
| 2052 | 3.031E+05            | 4.241E-03 | 9.604E-01    |
| 2053 | 3.031E+05            | 4.034E-03 | 9.136E-01    |
| 2054 | 3.031E+05            | 3.837E-03 | 8.690E-01    |
| 2055 | 3.031E+05            | 3.650E-03 | 8.266E-01    |
| 2056 | 3.031E+05            | 3.472E-03 | 7.863E-01    |
| 2057 | 3.031E+05            | 3.303E-03 | 7.480E-01    |
| 2058 | 3.031E+05            | 3.142E-03 | 7.115E-01    |
| 2059 | 3.031E+05            | 2.989E-03 | 6.768E-01    |
| 2060 | 3.031E+05            | 2.843E-03 | 6.438E-01    |
| 2061 | 3.031E+05            | 2.704E-03 | 6.124E-01    |
| 2062 | 3.031E+05            | 2.572E-03 | 5.825E-01    |
| 2063 | 3.031E+05            | 2.447E-03 | 5.541E-01    |
| 2064 | 3.031E+05            | 2.328E-03 | 5.271E-01    |
| 2065 | 3.031E+05            | 2.214E-03 | 5.014E-01    |
| 2066 | 3.031E+05            | 2.106E-03 | 4.769E-01    |
| 2067 | 3.031E+05            | 2.003E-03 | 4.537E-01    |
| 2068 | 3.031E+05            | 1.906E-03 | 4.315E-01    |
| 2069 | 3.031E+05            | 1.813E-03 | 4.105E-01    |
| 2070 | 3.031E+05            | 1.724E-03 | 3.905E-01    |
| 2071 | 3.031E+05            | 1.640E-03 | 3.714E-01    |
| 2072 | 3.031E+05            | 1.560E-03 | 3.533E-01    |
| 2073 | 3.031E+05            | 1.484E-03 | 3.361E-01    |
| 2074 | 3.031E+05            | 1.412E-03 | 3.197E-01    |
| 2075 | 3.031E+05            | 1.343E-03 | 3.041E-01    |
| 2076 | 3.031E+05            | 1.277E-03 | 2.893E-01    |
| 2077 | 3.031E+05            | 1.215E-03 | 2.752E-01    |
| 2078 | 3.031E+05            | 1.156E-03 | 2.617E-01    |
| 2079 | 3.031E+05            | 1.099E-03 | 2.490E-01    |
| 2080 | 3.031E+05            | 1.046E-03 | 2.368E-01    |
| 2081 | 3.031E+05            | 9.948E-04 | 2.253E-01    |
| 2082 | 3.031E+05            | 9.463E-04 | 2.143E-01    |
| 2083 | 3.031E+05            | 9.001E-04 | 2.038E-01    |
| 2084 | 3.031E+05            | 8.562E-04 | 1.939E-01    |
| 2085 | 3.031E+05            | 8.145E-04 | 1.844E-01    |
| 2086 | 3.031E+05            | 7.748E-04 | 1.754E-01    |
| 2087 | 3.031E+05            | 7.370E-04 | 1.669E-01    |
| 2088 | 3.031E+05            | 7.010E-04 | 1.588E-01    |

continued



Table D-18. Emission Rate of m,p-Xylene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 6.668E-04 | 1.510E-01    |
| 2090 | 3.031E+05            | 6.343E-04 | 1.436E-01    |
| 2091 | 3.031E+05            | 6.034E-04 | 1.366E-01    |
| 2092 | 3.031E+05            | 5.740E-04 | 1.300E-01    |
| 2093 | 3.031E+05            | 5.460E-04 | 1.236E-01    |
| 2094 | 3.031E+05            | 5.193E-04 | 1.176E-01    |
| 2095 | 3.031E+05            | 4.940E-04 | 1.119E-01    |
| 2096 | 3.031E+05            | 4.699E-04 | 1.064E-01    |
| 2097 | 3.031E+05            | 4.470E-04 | 1.012E-01    |
| 2098 | 3.031E+05            | 4.252E-04 | 9.629E-02    |
| 2099 | 3.031E+05            | 4.045E-04 | 9.159E-02    |
| 2100 | 3.031E+05            | 3.847E-04 | 8.713E-02    |
| 2101 | 3.031E+05            | 3.660E-04 | 8.288E-02    |
| 2102 | 3.031E+05            | 3.481E-04 | 7.883E-02    |
| 2103 | 3.031E+05            | 3.311E-04 | 7.499E-02    |
| 2104 | 3.031E+05            | 3.150E-04 | 7.133E-02    |
| 2105 | 3.031E+05            | 2.996E-04 | 6.785E-02    |
| 2106 | 3.031E+05            | 2.850E-04 | 6.454E-02    |
| 2107 | 3.031E+05            | 2.711E-04 | 6.140E-02    |
| 2108 | 3.031E+05            | 2.579E-04 | 5.840E-02    |
| 2109 | 3.031E+05            | 2.453E-04 | 5.555E-02    |
| 2110 | 3.031E+05            | 2.334E-04 | 5.284E-02    |
| 2111 | 3.031E+05            | 2.220E-04 | 5.027E-02    |
| 2112 | 3.031E+05            | 2.111E-04 | 4.782E-02    |
| 2113 | 3.031E+05            | 2.009E-04 | 4.548E-02    |
| 2114 | 3.031E+05            | 1.911E-04 | 4.327E-02    |
| 2115 | 3.031E+05            | 1.817E-04 | 4.116E-02    |
| 2116 | 3.031E+05            | 1.729E-04 | 3.915E-02    |
| 2117 | 3.031E+05            | 1.644E-04 | 3.724E-02    |
| 2118 | 3.031E+05            | 1.564E-04 | 3.542E-02    |
| 2119 | 3.031E+05            | 1.488E-04 | 3.369E-02    |
| 2120 | 3.031E+05            | 1.415E-04 | 3.205E-02    |
| 2121 | 3.031E+05            | 1.346E-04 | 3.049E-02    |
| 2122 | 3.031E+05            | 1.281E-04 | 2.900E-02    |
| 2123 | 3.031E+05            | 1.218E-04 | 2.759E-02    |
| 2124 | 3.031E+05            | 1.159E-04 | 2.624E-02    |
| 2125 | 3.031E+05            | 1.102E-04 | 2.496E-02    |
| 2126 | 3.031E+05            | 1.049E-04 | 2.374E-02    |
| 2127 | 3.031E+05            | 9.974E-05 | 2.259E-02    |
| 2128 | 3.031E+05            | 9.487E-05 | 2.148E-02    |
| 2129 | 3.031E+05            | 9.025E-05 | 2.044E-02    |
| 2130 | 3.031E+05            | 8.585E-05 | 1.944E-02    |
| 2131 | 3.031E+05            | 8.166E-05 | 1.849E-02    |
| 2132 | 3.031E+05            | 7.768E-05 | 1.759E-02    |
| 2133 | 3.031E+05            | 7.389E-05 | 1.673E-02    |
| 2134 | 3.031E+05            | 7.029E-05 | 1.592E-02    |
| 2135 | 3.031E+05            | 6.686E-05 | 1.514E-02    |
| 2136 | 3.031E+05            | 6.360E-05 | 1.440E-02    |
| 2137 | 3.031E+05            | 6.049E-05 | 1.370E-02    |
| 2138 | 3.031E+05            | 5.754E-05 | 1.303E-02    |
| 2139 | 3.031E+05            | 5.474E-05 | 1.240E-02    |
| 2140 | 3.031E+05            | 5.207E-05 | 1.179E-02    |
| 2141 | 3.031E+05            | 4.953E-05 | 1.122E-02    |
| 2142 | 3.031E+05            | 4.711E-05 | 1.067E-02    |
| 2143 | 3.031E+05            | 4.482E-05 | 1.015E-02    |
| 2144 | 3.031E+05            | 4.263E-05 | 9.654E-03    |
| 2145 | 3.031E+05            | 4.055E-05 | 9.183E-03    |
| 2146 | 3.031E+05            | 3.857E-05 | 8.735E-03    |
| 2147 | 3.031E+05            | 3.669E-05 | 8.309E-03    |
| 2148 | 3.031E+05            | 3.490E-05 | 7.904E-03    |
| 2149 | 3.031E+05            | 3.320E-05 | 7.518E-03    |
| 2150 | 3.031E+05            | 3.158E-05 | 7.152E-03    |
| 2151 | 3.031E+05            | 3.004E-05 | 6.803E-03    |
| 2152 | 3.031E+05            | 2.858E-05 | 6.471E-03    |
| 2153 | 3.031E+05            | 2.718E-05 | 6.156E-03    |
| 2154 | 3.031E+05            | 2.586E-05 | 5.855E-03    |
| 2155 | 3.031E+05            | 2.460E-05 | 5.570E-03    |
| 2156 | 3.031E+05            | 2.340E-05 | 5.298E-03    |
| 2157 | 3.031E+05            | 2.225E-05 | 5.040E-03    |
| 2158 | 3.031E+05            | 2.117E-05 | 4.794E-03    |

continued

Table D-18. Emission Rate of m,p-Xylene from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 2.014E-05 | 4.560E-03    |
| 2160 | 3.031E+05            | 1.915E-05 | 4.338E-03    |
| 2161 | 3.031E+05            | 1.822E-05 | 4.126E-03    |
| 2162 | 3.031E+05            | 1.733E-05 | 3.925E-03    |
| 2163 | 3.031E+05            | 1.649E-05 | 3.734E-03    |
| 2164 | 3.031E+05            | 1.568E-05 | 3.551E-03    |
| 2165 | 3.031E+05            | 1.492E-05 | 3.378E-03    |
| 2166 | 3.031E+05            | 1.419E-05 | 3.213E-03    |
| 2167 | 3.031E+05            | 1.350E-05 | 3.057E-03    |
| 2168 | 3.031E+05            | 1.284E-05 | 2.908E-03    |
| 2169 | 3.031E+05            | 1.221E-05 | 2.766E-03    |
| 2170 | 3.031E+05            | 1.162E-05 | 2.631E-03    |
| 2171 | 3.031E+05            | 1.105E-05 | 2.503E-03    |
| 2172 | 3.031E+05            | 1.051E-05 | 2.381E-03    |
| 2173 | 3.031E+05            | 1.000E-05 | 2.264E-03    |
| 2174 | 3.031E+05            | 9.512E-06 | 2.154E-03    |
| 2175 | 3.031E+05            | 9.048E-06 | 2.049E-03    |
| 2176 | 3.031E+05            | 8.607E-06 | 1.949E-03    |
| 2177 | 3.031E+05            | 8.187E-06 | 1.854E-03    |
| 2178 | 3.031E+05            | 7.788E-06 | 1.764E-03    |
| 2179 | 3.031E+05            | 7.408E-06 | 1.678E-03    |
| 2180 | 3.031E+05            | 7.047E-06 | 1.596E-03    |
| 2181 | 3.031E+05            | 6.703E-06 | 1.518E-03    |
| 2182 | 3.031E+05            | 6.376E-06 | 1.444E-03    |
| 2183 | 3.031E+05            | 6.065E-06 | 1.373E-03    |
| 2184 | 3.031E+05            | 5.769E-06 | 1.306E-03    |
| 2185 | 3.031E+05            | 5.488E-06 | 1.243E-03    |
| 2186 | 3.031E+05            | 5.220E-06 | 1.182E-03    |
| 2187 | 3.031E+05            | 4.966E-06 | 1.125E-03    |
| 2188 | 3.031E+05            | 4.724E-06 | 1.070E-03    |
| 2189 | 3.031E+05            | 4.493E-06 | 1.017E-03    |
| 2190 | 3.031E+05            | 4.274E-06 | 9.679E-04    |
| 2191 | 3.031E+05            | 4.066E-06 | 9.207E-04    |
| 2192 | 3.031E+05            | 3.867E-06 | 8.758E-04    |
| 2193 | 3.031E+05            | 3.679E-06 | 8.331E-04    |
| 2194 | 3.031E+05            | 3.499E-06 | 7.924E-04    |
| 2195 | 3.031E+05            | 3.329E-06 | 7.538E-04    |
| 2196 | 3.031E+05            | 3.166E-06 | 7.170E-04    |
| 2197 | 3.031E+05            | 3.012E-06 | 6.820E-04    |
| 2198 | 3.031E+05            | 2.865E-06 | 6.488E-04    |
| 2199 | 3.031E+05            | 2.725E-06 | 6.171E-04    |
| 2200 | 3.031E+05            | 2.592E-06 | 5.870E-04    |
| 2201 | 3.031E+05            | 2.466E-06 | 5.584E-04    |
| 2202 | 3.031E+05            | 2.346E-06 | 5.312E-04    |
| 2203 | 3.031E+05            | 2.231E-06 | 5.053E-04    |

Table D-19. Emission Rate of o-Xylene from Parcel 1 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA1.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2200.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : oXylene (HAP/VOC)
Molecular Wt = 106.17      Concentration =      2.660000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 303128 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      oXylene (HAP/VOC) Emission Rate
      (Mg/yr)      (Cubic m/yr)
=====
1975      3.031E+04      4.729E-03      1.071E+00
1976      6.063E+04      9.227E-03      2.090E+00
1977      9.094E+04      1.351E-02      3.059E+00
1978      1.213E+05      1.758E-02      3.980E+00
1979      1.516E+05      2.145E-02      4.857E+00
1980      1.819E+05      2.513E-02      5.691E+00
1981      2.122E+05      2.863E-02      6.484E+00
1982      2.425E+05      3.197E-02      7.239E+00
1983      2.728E+05      3.514E-02      7.957E+00
1984      3.031E+05      3.815E-02      8.640E+00
1985      3.031E+05      3.629E-02      8.218E+00
1986      3.031E+05      3.452E-02      7.818E+00
1987      3.031E+05      3.284E-02      7.436E+00
1988      3.031E+05      3.124E-02      7.074E+00
1989      3.031E+05      2.971E-02      6.729E+00
1990      3.031E+05      2.826E-02      6.400E+00
1991      3.031E+05      2.689E-02      6.088E+00
1992      3.031E+05      2.557E-02      5.791E+00
1993      3.031E+05      2.433E-02      5.509E+00
1994      3.031E+05      2.314E-02      5.240E+00
1995      3.031E+05      2.201E-02      4.985E+00
1996      3.031E+05      2.094E-02      4.742E+00
1997      3.031E+05      1.992E-02      4.510E+00
1998      3.031E+05      1.895E-02      4.290E+00
1999      3.031E+05      1.802E-02      4.081E+00
2000      3.031E+05      1.714E-02      3.882E+00
2001      3.031E+05      1.631E-02      3.693E+00
2002      3.031E+05      1.551E-02      3.513E+00
2003      3.031E+05      1.476E-02      3.341E+00
2004      3.031E+05      1.404E-02      3.178E+00
2005      3.031E+05      1.335E-02      3.023E+00
2006      3.031E+05      1.270E-02      2.876E+00
2007      3.031E+05      1.208E-02      2.736E+00
2008      3.031E+05      1.149E-02      2.602E+00
2009      3.031E+05      1.093E-02      2.475E+00
2010      3.031E+05      1.040E-02      2.355E+00
2011      3.031E+05      9.891E-03      2.240E+00
2012      3.031E+05      9.408E-03      2.131E+00
2013      3.031E+05      8.949E-03      2.027E+00
2014      3.031E+05      8.513E-03      1.928E+00
2015      3.031E+05      8.098E-03      1.834E+00
2016      3.031E+05      7.703E-03      1.744E+00
2017      3.031E+05      7.327E-03      1.659E+00
2018      3.031E+05      6.970E-03      1.578E+00
=====

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continued

Table D-19. Emission Rate of o-Xylene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.031E+05            | 6.630E-03 | 1.501E+00    |
| 2020 | 3.031E+05            | 6.307E-03 | 1.428E+00    |
| 2021 | 3.031E+05            | 5.999E-03 | 1.358E+00    |
| 2022 | 3.031E+05            | 5.706E-03 | 1.292E+00    |
| 2023 | 3.031E+05            | 5.428E-03 | 1.229E+00    |
| 2024 | 3.031E+05            | 5.163E-03 | 1.169E+00    |
| 2025 | 3.031E+05            | 4.912E-03 | 1.112E+00    |
| 2026 | 3.031E+05            | 4.672E-03 | 1.058E+00    |
| 2027 | 3.031E+05            | 4.444E-03 | 1.006E+00    |
| 2028 | 3.031E+05            | 4.227E-03 | 9.573E-01    |
| 2029 | 3.031E+05            | 4.021E-03 | 9.106E-01    |
| 2030 | 3.031E+05            | 3.825E-03 | 8.662E-01    |
| 2031 | 3.031E+05            | 3.639E-03 | 8.240E-01    |
| 2032 | 3.031E+05            | 3.461E-03 | 7.838E-01    |
| 2033 | 3.031E+05            | 3.292E-03 | 7.456E-01    |
| 2034 | 3.031E+05            | 3.132E-03 | 7.092E-01    |
| 2035 | 3.031E+05            | 2.979E-03 | 6.746E-01    |
| 2036 | 3.031E+05            | 2.834E-03 | 6.417E-01    |
| 2037 | 3.031E+05            | 2.696E-03 | 6.104E-01    |
| 2038 | 3.031E+05            | 2.564E-03 | 5.806E-01    |
| 2039 | 3.031E+05            | 2.439E-03 | 5.523E-01    |
| 2040 | 3.031E+05            | 2.320E-03 | 5.254E-01    |
| 2041 | 3.031E+05            | 2.207E-03 | 4.998E-01    |
| 2042 | 3.031E+05            | 2.099E-03 | 4.754E-01    |
| 2043 | 3.031E+05            | 1.997E-03 | 4.522E-01    |
| 2044 | 3.031E+05            | 1.899E-03 | 4.301E-01    |
| 2045 | 3.031E+05            | 1.807E-03 | 4.092E-01    |
| 2046 | 3.031E+05            | 1.719E-03 | 3.892E-01    |
| 2047 | 3.031E+05            | 1.635E-03 | 3.702E-01    |
| 2048 | 3.031E+05            | 1.555E-03 | 3.522E-01    |
| 2049 | 3.031E+05            | 1.479E-03 | 3.350E-01    |
| 2050 | 3.031E+05            | 1.407E-03 | 3.187E-01    |
| 2051 | 3.031E+05            | 1.339E-03 | 3.031E-01    |
| 2052 | 3.031E+05            | 1.273E-03 | 2.883E-01    |
| 2053 | 3.031E+05            | 1.211E-03 | 2.743E-01    |
| 2054 | 3.031E+05            | 1.152E-03 | 2.609E-01    |
| 2055 | 3.031E+05            | 1.096E-03 | 2.482E-01    |
| 2056 | 3.031E+05            | 1.042E-03 | 2.361E-01    |
| 2057 | 3.031E+05            | 9.916E-04 | 2.246E-01    |
| 2058 | 3.031E+05            | 9.433E-04 | 2.136E-01    |
| 2059 | 3.031E+05            | 8.973E-04 | 2.032E-01    |
| 2060 | 3.031E+05            | 8.535E-04 | 1.933E-01    |
| 2061 | 3.031E+05            | 8.119E-04 | 1.839E-01    |
| 2062 | 3.031E+05            | 7.723E-04 | 1.749E-01    |
| 2063 | 3.031E+05            | 7.346E-04 | 1.664E-01    |
| 2064 | 3.031E+05            | 6.988E-04 | 1.582E-01    |
| 2065 | 3.031E+05            | 6.647E-04 | 1.505E-01    |
| 2066 | 3.031E+05            | 6.323E-04 | 1.432E-01    |
| 2067 | 3.031E+05            | 6.014E-04 | 1.362E-01    |
| 2068 | 3.031E+05            | 5.721E-04 | 1.296E-01    |
| 2069 | 3.031E+05            | 5.442E-04 | 1.232E-01    |
| 2070 | 3.031E+05            | 5.177E-04 | 1.172E-01    |
| 2071 | 3.031E+05            | 4.924E-04 | 1.115E-01    |
| 2072 | 3.031E+05            | 4.684E-04 | 1.061E-01    |
| 2073 | 3.031E+05            | 4.456E-04 | 1.009E-01    |
| 2074 | 3.031E+05            | 4.238E-04 | 9.598E-02    |
| 2075 | 3.031E+05            | 4.032E-04 | 9.130E-02    |
| 2076 | 3.031E+05            | 3.835E-04 | 8.685E-02    |
| 2077 | 3.031E+05            | 3.648E-04 | 8.261E-02    |
| 2078 | 3.031E+05            | 3.470E-04 | 7.858E-02    |
| 2079 | 3.031E+05            | 3.301E-04 | 7.475E-02    |
| 2080 | 3.031E+05            | 3.140E-04 | 7.110E-02    |
| 2081 | 3.031E+05            | 2.987E-04 | 6.764E-02    |
| 2082 | 3.031E+05            | 2.841E-04 | 6.434E-02    |
| 2083 | 3.031E+05            | 2.702E-04 | 6.120E-02    |
| 2084 | 3.031E+05            | 2.571E-04 | 5.821E-02    |
| 2085 | 3.031E+05            | 2.445E-04 | 5.537E-02    |
| 2086 | 3.031E+05            | 2.326E-04 | 5.267E-02    |
| 2087 | 3.031E+05            | 2.213E-04 | 5.011E-02    |
| 2088 | 3.031E+05            | 2.105E-04 | 4.766E-02    |

continued

Table D-19. Emission Rate of o-Xylene from Parcel 1 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.031E+05            | 2.002E-04 | 4.534E-02    |
| 2090 | 3.031E+05            | 1.904E-04 | 4.313E-02    |
| 2091 | 3.031E+05            | 1.812E-04 | 4.102E-02    |
| 2092 | 3.031E+05            | 1.723E-04 | 3.902E-02    |
| 2093 | 3.031E+05            | 1.639E-04 | 3.712E-02    |
| 2094 | 3.031E+05            | 1.559E-04 | 3.531E-02    |
| 2095 | 3.031E+05            | 1.483E-04 | 3.359E-02    |
| 2096 | 3.031E+05            | 1.411E-04 | 3.195E-02    |
| 2097 | 3.031E+05            | 1.342E-04 | 3.039E-02    |
| 2098 | 3.031E+05            | 1.277E-04 | 2.891E-02    |
| 2099 | 3.031E+05            | 1.214E-04 | 2.750E-02    |
| 2100 | 3.031E+05            | 1.155E-04 | 2.616E-02    |
| 2101 | 3.031E+05            | 1.099E-04 | 2.488E-02    |
| 2102 | 3.031E+05            | 1.045E-04 | 2.367E-02    |
| 2103 | 3.031E+05            | 9.942E-05 | 2.251E-02    |
| 2104 | 3.031E+05            | 9.457E-05 | 2.142E-02    |
| 2105 | 3.031E+05            | 8.996E-05 | 2.037E-02    |
| 2106 | 3.031E+05            | 8.557E-05 | 1.938E-02    |
| 2107 | 3.031E+05            | 8.140E-05 | 1.843E-02    |
| 2108 | 3.031E+05            | 7.743E-05 | 1.753E-02    |
| 2109 | 3.031E+05            | 7.365E-05 | 1.668E-02    |
| 2110 | 3.031E+05            | 7.006E-05 | 1.587E-02    |
| 2111 | 3.031E+05            | 6.664E-05 | 1.509E-02    |
| 2112 | 3.031E+05            | 6.339E-05 | 1.436E-02    |
| 2113 | 3.031E+05            | 6.030E-05 | 1.366E-02    |
| 2114 | 3.031E+05            | 5.736E-05 | 1.299E-02    |
| 2115 | 3.031E+05            | 5.456E-05 | 1.236E-02    |
| 2116 | 3.031E+05            | 5.190E-05 | 1.175E-02    |
| 2117 | 3.031E+05            | 4.937E-05 | 1.118E-02    |
| 2118 | 3.031E+05            | 4.696E-05 | 1.063E-02    |
| 2119 | 3.031E+05            | 4.467E-05 | 1.012E-02    |
| 2120 | 3.031E+05            | 4.249E-05 | 9.623E-03    |
| 2121 | 3.031E+05            | 4.042E-05 | 9.153E-03    |
| 2122 | 3.031E+05            | 3.845E-05 | 8.707E-03    |
| 2123 | 3.031E+05            | 3.657E-05 | 8.282E-03    |
| 2124 | 3.031E+05            | 3.479E-05 | 7.878E-03    |
| 2125 | 3.031E+05            | 3.309E-05 | 7.494E-03    |
| 2126 | 3.031E+05            | 3.148E-05 | 7.129E-03    |
| 2127 | 3.031E+05            | 2.994E-05 | 6.781E-03    |
| 2128 | 3.031E+05            | 2.848E-05 | 6.450E-03    |
| 2129 | 3.031E+05            | 2.709E-05 | 6.136E-03    |
| 2130 | 3.031E+05            | 2.577E-05 | 5.836E-03    |
| 2131 | 3.031E+05            | 2.452E-05 | 5.552E-03    |
| 2132 | 3.031E+05            | 2.332E-05 | 5.281E-03    |
| 2133 | 3.031E+05            | 2.218E-05 | 5.023E-03    |
| 2134 | 3.031E+05            | 2.110E-05 | 4.778E-03    |
| 2135 | 3.031E+05            | 2.007E-05 | 4.545E-03    |
| 2136 | 3.031E+05            | 1.909E-05 | 4.324E-03    |
| 2137 | 3.031E+05            | 1.816E-05 | 4.113E-03    |
| 2138 | 3.031E+05            | 1.728E-05 | 3.912E-03    |
| 2139 | 3.031E+05            | 1.643E-05 | 3.721E-03    |
| 2140 | 3.031E+05            | 1.563E-05 | 3.540E-03    |
| 2141 | 3.031E+05            | 1.487E-05 | 3.367E-03    |
| 2142 | 3.031E+05            | 1.414E-05 | 3.203E-03    |
| 2143 | 3.031E+05            | 1.345E-05 | 3.047E-03    |
| 2144 | 3.031E+05            | 1.280E-05 | 2.898E-03    |
| 2145 | 3.031E+05            | 1.217E-05 | 2.757E-03    |
| 2146 | 3.031E+05            | 1.158E-05 | 2.622E-03    |
| 2147 | 3.031E+05            | 1.102E-05 | 2.495E-03    |
| 2148 | 3.031E+05            | 1.048E-05 | 2.373E-03    |
| 2149 | 3.031E+05            | 9.968E-06 | 2.257E-03    |
| 2150 | 3.031E+05            | 9.481E-06 | 2.147E-03    |
| 2151 | 3.031E+05            | 9.019E-06 | 2.042E-03    |
| 2152 | 3.031E+05            | 8.579E-06 | 1.943E-03    |
| 2153 | 3.031E+05            | 8.161E-06 | 1.848E-03    |
| 2154 | 3.031E+05            | 7.763E-06 | 1.758E-03    |
| 2155 | 3.031E+05            | 7.384E-06 | 1.672E-03    |
| 2156 | 3.031E+05            | 7.024E-06 | 1.591E-03    |
| 2157 | 3.031E+05            | 6.681E-06 | 1.513E-03    |
| 2158 | 3.031E+05            | 6.356E-06 | 1.439E-03    |

continued

Table D-19. Emission Rate of o-Xylene from Parcel 1 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.031E+05            | 6.046E-06 | 1.369E-03    |
| 2160 | 3.031E+05            | 5.751E-06 | 1.302E-03    |
| 2161 | 3.031E+05            | 5.470E-06 | 1.239E-03    |
| 2162 | 3.031E+05            | 5.204E-06 | 1.178E-03    |
| 2163 | 3.031E+05            | 4.950E-06 | 1.121E-03    |
| 2164 | 3.031E+05            | 4.708E-06 | 1.066E-03    |
| 2165 | 3.031E+05            | 4.479E-06 | 1.014E-03    |
| 2166 | 3.031E+05            | 4.260E-06 | 9.648E-04    |
| 2167 | 3.031E+05            | 4.053E-06 | 9.177E-04    |
| 2168 | 3.031E+05            | 3.855E-06 | 8.730E-04    |
| 2169 | 3.031E+05            | 3.667E-06 | 8.304E-04    |
| 2170 | 3.031E+05            | 3.488E-06 | 7.899E-04    |
| 2171 | 3.031E+05            | 3.318E-06 | 7.514E-04    |
| 2172 | 3.031E+05            | 3.156E-06 | 7.147E-04    |
| 2173 | 3.031E+05            | 3.002E-06 | 6.799E-04    |
| 2174 | 3.031E+05            | 2.856E-06 | 6.467E-04    |
| 2175 | 3.031E+05            | 2.716E-06 | 6.152E-04    |
| 2176 | 3.031E+05            | 2.584E-06 | 5.852E-04    |
| 2177 | 3.031E+05            | 2.458E-06 | 5.566E-04    |
| 2178 | 3.031E+05            | 2.338E-06 | 5.295E-04    |
| 2179 | 3.031E+05            | 2.224E-06 | 5.036E-04    |
| 2180 | 3.031E+05            | 2.116E-06 | 4.791E-04    |
| 2181 | 3.031E+05            | 2.012E-06 | 4.557E-04    |
| 2182 | 3.031E+05            | 1.914E-06 | 4.335E-04    |
| 2183 | 3.031E+05            | 1.821E-06 | 4.124E-04    |
| 2184 | 3.031E+05            | 1.732E-06 | 3.922E-04    |
| 2185 | 3.031E+05            | 1.648E-06 | 3.731E-04    |
| 2186 | 3.031E+05            | 1.567E-06 | 3.549E-04    |
| 2187 | 3.031E+05            | 1.491E-06 | 3.376E-04    |
| 2188 | 3.031E+05            | 1.418E-06 | 3.211E-04    |
| 2189 | 3.031E+05            | 1.349E-06 | 3.055E-04    |
| 2190 | 3.031E+05            | 1.283E-06 | 2.906E-04    |
| 2191 | 3.031E+05            | 1.221E-06 | 2.764E-04    |
| 2192 | 3.031E+05            | 1.161E-06 | 2.629E-04    |
| 2193 | 3.031E+05            | 1.104E-06 | 2.501E-04    |
| 2194 | 3.031E+05            | 1.051E-06 | 2.379E-04    |
| 2195 | 3.031E+05            | 9.993E-07 | 2.263E-04    |
| 2196 | 3.031E+05            | 9.506E-07 | 2.153E-04    |
| 2197 | 3.031E+05            | 9.042E-07 | 2.048E-04    |
| 2198 | 3.031E+05            | 8.601E-07 | 1.948E-04    |
| 2199 | 3.031E+05            | 8.182E-07 | 1.853E-04    |
| 2200 | 3.031E+05            | 7.783E-07 | 1.762E-04    |
| 2201 | 3.031E+05            | 7.403E-07 | 1.677E-04    |
| 2202 | 3.031E+05            | 7.042E-07 | 1.595E-04    |
| 2203 | 3.031E+05            | 6.699E-07 | 1.517E-04    |

Table D-20. Emission Rate of Methane from Parcel 2 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA2.PRM

```

=====
                        Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2000.00 ppmv
Methane : 62.0000 % volume
Carbon Dioxide : 38.0000 % volume

=====
                        Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974   Current Year : 2004   Closure Year: 2004
Capacity : 48325 Mg
Average Acceptance Rate Required from
    Current Year to Closure Year : 0.00 Mg/year

=====
                        Model Results
=====
Year      Refuse In Place (Mg)      Methane Emission Rate
                                (Mg/yr)      (Cubic m/yr)
=====
1975      4.832E+03      2.740E+01      4.108E+04
1976      9.665E+03      5.347E+01      8.015E+04
1977      1.450E+04      7.827E+01      1.173E+05
1978      1.933E+04      1.019E+02      1.527E+05
1979      2.416E+04      1.243E+02      1.863E+05
1980      2.899E+04      1.456E+02      2.183E+05
1981      3.383E+04      1.659E+02      2.487E+05
1982      3.866E+04      1.852E+02      2.777E+05
1983      4.349E+04      2.036E+02      3.052E+05
1984      4.832E+04      2.211E+02      3.314E+05
1985      4.832E+04      2.103E+02      3.152E+05
1986      4.832E+04      2.000E+02      2.999E+05
1987      4.832E+04      1.903E+02      2.852E+05
1988      4.832E+04      1.810E+02      2.713E+05
1989      4.832E+04      1.722E+02      2.581E+05
1990      4.832E+04      1.638E+02      2.455E+05
1991      4.832E+04      1.558E+02      2.335E+05
1992      4.832E+04      1.482E+02      2.221E+05
1993      4.832E+04      1.410E+02      2.113E+05
1994      4.832E+04      1.341E+02      2.010E+05
1995      4.832E+04      1.276E+02      1.912E+05
1996      4.832E+04      1.213E+02      1.819E+05
1997      4.832E+04      1.154E+02      1.730E+05
1998      4.832E+04      1.098E+02      1.646E+05
1999      4.832E+04      1.044E+02      1.565E+05
2000      4.832E+04      9.934E+01      1.489E+05
2001      4.832E+04      9.450E+01      1.416E+05
2002      4.832E+04      8.989E+01      1.347E+05
2003      4.832E+04      8.550E+01      1.282E+05
2004      4.832E+04      8.133E+01      1.219E+05
2005      4.832E+04      7.737E+01      1.160E+05
2006      4.832E+04      7.359E+01      1.103E+05
2007      4.832E+04      7.000E+01      1.049E+05
2008      4.832E+04      6.659E+01      9.981E+04
2009      4.832E+04      6.334E+01      9.495E+04
2010      4.832E+04      6.025E+01      9.031E+04
2011      4.832E+04      5.731E+01      8.591E+04
2012      4.832E+04      5.452E+01      8.172E+04
2013      4.832E+04      5.186E+01      7.773E+04
2014      4.832E+04      4.933E+01      7.394E+04
2015      4.832E+04      4.693E+01      7.034E+04
2016      4.832E+04      4.464E+01      6.691E+04
2017      4.832E+04      4.246E+01      6.364E+04
2018      4.832E+04      4.039E+01      6.054E+04
2019      4.832E+04      3.842E+01      5.759E+04
2020      4.832E+04      3.655E+01      5.478E+04

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continued

Table D-20. Emission Rate of Methane from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2021 | 4.832E+04            | 3.476E+01 | 5.211E+04    |
| 2022 | 4.832E+04            | 3.307E+01 | 4.957E+04    |
| 2023 | 4.832E+04            | 3.146E+01 | 4.715E+04    |
| 2024 | 4.832E+04            | 2.992E+01 | 4.485E+04    |
| 2025 | 4.832E+04            | 2.846E+01 | 4.266E+04    |
| 2026 | 4.832E+04            | 2.707E+01 | 4.058E+04    |
| 2027 | 4.832E+04            | 2.575E+01 | 3.860E+04    |
| 2028 | 4.832E+04            | 2.450E+01 | 3.672E+04    |
| 2029 | 4.832E+04            | 2.330E+01 | 3.493E+04    |
| 2030 | 4.832E+04            | 2.217E+01 | 3.322E+04    |
| 2031 | 4.832E+04            | 2.108E+01 | 3.160E+04    |
| 2032 | 4.832E+04            | 2.006E+01 | 3.006E+04    |
| 2033 | 4.832E+04            | 1.908E+01 | 2.860E+04    |
| 2034 | 4.832E+04            | 1.815E+01 | 2.720E+04    |
| 2035 | 4.832E+04            | 1.726E+01 | 2.588E+04    |
| 2036 | 4.832E+04            | 1.642E+01 | 2.461E+04    |
| 2037 | 4.832E+04            | 1.562E+01 | 2.341E+04    |
| 2038 | 4.832E+04            | 1.486E+01 | 2.227E+04    |
| 2039 | 4.832E+04            | 1.413E+01 | 2.119E+04    |
| 2040 | 4.832E+04            | 1.344E+01 | 2.015E+04    |
| 2041 | 4.832E+04            | 1.279E+01 | 1.917E+04    |
| 2042 | 4.832E+04            | 1.216E+01 | 1.823E+04    |
| 2043 | 4.832E+04            | 1.157E+01 | 1.734E+04    |
| 2044 | 4.832E+04            | 1.101E+01 | 1.650E+04    |
| 2045 | 4.832E+04            | 1.047E+01 | 1.569E+04    |
| 2046 | 4.832E+04            | 9.960E+00 | 1.493E+04    |
| 2047 | 4.832E+04            | 9.474E+00 | 1.420E+04    |
| 2048 | 4.832E+04            | 9.012E+00 | 1.351E+04    |
| 2049 | 4.832E+04            | 8.572E+00 | 1.285E+04    |
| 2050 | 4.832E+04            | 8.154E+00 | 1.222E+04    |
| 2051 | 4.832E+04            | 7.757E+00 | 1.163E+04    |
| 2052 | 4.832E+04            | 7.378E+00 | 1.106E+04    |
| 2053 | 4.832E+04            | 7.019E+00 | 1.052E+04    |
| 2054 | 4.832E+04            | 6.676E+00 | 1.001E+04    |
| 2055 | 4.832E+04            | 6.351E+00 | 9.519E+03    |
| 2056 | 4.832E+04            | 6.041E+00 | 9.055E+03    |
| 2057 | 4.832E+04            | 5.746E+00 | 8.613E+03    |
| 2058 | 4.832E+04            | 5.466E+00 | 8.193E+03    |
| 2059 | 4.832E+04            | 5.199E+00 | 7.794E+03    |
| 2060 | 4.832E+04            | 4.946E+00 | 7.413E+03    |
| 2061 | 4.832E+04            | 4.705E+00 | 7.052E+03    |
| 2062 | 4.832E+04            | 4.475E+00 | 6.708E+03    |
| 2063 | 4.832E+04            | 4.257E+00 | 6.381E+03    |
| 2064 | 4.832E+04            | 4.049E+00 | 6.070E+03    |
| 2065 | 4.832E+04            | 3.852E+00 | 5.774E+03    |
| 2066 | 4.832E+04            | 3.664E+00 | 5.492E+03    |
| 2067 | 4.832E+04            | 3.485E+00 | 5.224E+03    |
| 2068 | 4.832E+04            | 3.315E+00 | 4.969E+03    |
| 2069 | 4.832E+04            | 3.154E+00 | 4.727E+03    |
| 2070 | 4.832E+04            | 3.000E+00 | 4.497E+03    |
| 2071 | 4.832E+04            | 2.854E+00 | 4.277E+03    |
| 2072 | 4.832E+04            | 2.714E+00 | 4.069E+03    |
| 2073 | 4.832E+04            | 2.582E+00 | 3.870E+03    |
| 2074 | 4.832E+04            | 2.456E+00 | 3.681E+03    |
| 2075 | 4.832E+04            | 2.336E+00 | 3.502E+03    |
| 2076 | 4.832E+04            | 2.222E+00 | 3.331E+03    |
| 2077 | 4.832E+04            | 2.114E+00 | 3.169E+03    |
| 2078 | 4.832E+04            | 2.011E+00 | 3.014E+03    |
| 2079 | 4.832E+04            | 1.913E+00 | 2.867E+03    |
| 2080 | 4.832E+04            | 1.819E+00 | 2.727E+03    |
| 2081 | 4.832E+04            | 1.731E+00 | 2.594E+03    |
| 2082 | 4.832E+04            | 1.646E+00 | 2.468E+03    |
| 2083 | 4.832E+04            | 1.566E+00 | 2.347E+03    |
| 2084 | 4.832E+04            | 1.490E+00 | 2.233E+03    |
| 2085 | 4.832E+04            | 1.417E+00 | 2.124E+03    |
| 2086 | 4.832E+04            | 1.348E+00 | 2.020E+03    |
| 2087 | 4.832E+04            | 1.282E+00 | 1.922E+03    |
| 2088 | 4.832E+04            | 1.220E+00 | 1.828E+03    |
| 2089 | 4.832E+04            | 1.160E+00 | 1.739E+03    |
| 2090 | 4.832E+04            | 1.104E+00 | 1.654E+03    |

continued



Table D-20. Emission Rate of Methane from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2091 | 4.832E+04            | 1.050E+00 | 1.573E+03    |
| 2092 | 4.832E+04            | 9.986E-01 | 1.497E+03    |
| 2093 | 4.832E+04            | 9.499E-01 | 1.424E+03    |
| 2094 | 4.832E+04            | 9.035E-01 | 1.354E+03    |
| 2095 | 4.832E+04            | 8.595E-01 | 1.288E+03    |
| 2096 | 4.832E+04            | 8.176E-01 | 1.225E+03    |
| 2097 | 4.832E+04            | 7.777E-01 | 1.166E+03    |
| 2098 | 4.832E+04            | 7.398E-01 | 1.109E+03    |
| 2099 | 4.832E+04            | 7.037E-01 | 1.055E+03    |
| 2100 | 4.832E+04            | 6.694E-01 | 1.003E+03    |
| 2101 | 4.832E+04            | 6.367E-01 | 9.544E+02    |
| 2102 | 4.832E+04            | 6.057E-01 | 9.078E+02    |
| 2103 | 4.832E+04            | 5.761E-01 | 8.636E+02    |
| 2104 | 4.832E+04            | 5.480E-01 | 8.214E+02    |
| 2105 | 4.832E+04            | 5.213E-01 | 7.814E+02    |
| 2106 | 4.832E+04            | 4.959E-01 | 7.433E+02    |
| 2107 | 4.832E+04            | 4.717E-01 | 7.070E+02    |
| 2108 | 4.832E+04            | 4.487E-01 | 6.725E+02    |
| 2109 | 4.832E+04            | 4.268E-01 | 6.397E+02    |
| 2110 | 4.832E+04            | 4.060E-01 | 6.085E+02    |
| 2111 | 4.832E+04            | 3.862E-01 | 5.789E+02    |
| 2112 | 4.832E+04            | 3.673E-01 | 5.506E+02    |
| 2113 | 4.832E+04            | 3.494E-01 | 5.238E+02    |
| 2114 | 4.832E+04            | 3.324E-01 | 4.982E+02    |
| 2115 | 4.832E+04            | 3.162E-01 | 4.739E+02    |
| 2116 | 4.832E+04            | 3.008E-01 | 4.508E+02    |
| 2117 | 4.832E+04            | 2.861E-01 | 4.288E+02    |
| 2118 | 4.832E+04            | 2.721E-01 | 4.079E+02    |
| 2119 | 4.832E+04            | 2.589E-01 | 3.880E+02    |
| 2120 | 4.832E+04            | 2.462E-01 | 3.691E+02    |
| 2121 | 4.832E+04            | 2.342E-01 | 3.511E+02    |
| 2122 | 4.832E+04            | 2.228E-01 | 3.340E+02    |
| 2123 | 4.832E+04            | 2.119E-01 | 3.177E+02    |
| 2124 | 4.832E+04            | 2.016E-01 | 3.022E+02    |
| 2125 | 4.832E+04            | 1.918E-01 | 2.875E+02    |
| 2126 | 4.832E+04            | 1.824E-01 | 2.734E+02    |
| 2127 | 4.832E+04            | 1.735E-01 | 2.601E+02    |
| 2128 | 4.832E+04            | 1.651E-01 | 2.474E+02    |
| 2129 | 4.832E+04            | 1.570E-01 | 2.353E+02    |
| 2130 | 4.832E+04            | 1.494E-01 | 2.239E+02    |
| 2131 | 4.832E+04            | 1.421E-01 | 2.129E+02    |
| 2132 | 4.832E+04            | 1.351E-01 | 2.026E+02    |
| 2133 | 4.832E+04            | 1.285E-01 | 1.927E+02    |
| 2134 | 4.832E+04            | 1.223E-01 | 1.833E+02    |
| 2135 | 4.832E+04            | 1.163E-01 | 1.743E+02    |
| 2136 | 4.832E+04            | 1.106E-01 | 1.658E+02    |
| 2137 | 4.832E+04            | 1.052E-01 | 1.578E+02    |
| 2138 | 4.832E+04            | 1.001E-01 | 1.501E+02    |
| 2139 | 4.832E+04            | 9.523E-02 | 1.427E+02    |
| 2140 | 4.832E+04            | 9.059E-02 | 1.358E+02    |
| 2141 | 4.832E+04            | 8.617E-02 | 1.292E+02    |
| 2142 | 4.832E+04            | 8.197E-02 | 1.229E+02    |
| 2143 | 4.832E+04            | 7.797E-02 | 1.169E+02    |
| 2144 | 4.832E+04            | 7.417E-02 | 1.112E+02    |
| 2145 | 4.832E+04            | 7.055E-02 | 1.057E+02    |
| 2146 | 4.832E+04            | 6.711E-02 | 1.006E+02    |
| 2147 | 4.832E+04            | 6.384E-02 | 9.568E+01    |
| 2148 | 4.832E+04            | 6.072E-02 | 9.102E+01    |
| 2149 | 4.832E+04            | 5.776E-02 | 8.658E+01    |
| 2150 | 4.832E+04            | 5.494E-02 | 8.236E+01    |
| 2151 | 4.832E+04            | 5.226E-02 | 7.834E+01    |
| 2152 | 4.832E+04            | 4.972E-02 | 7.452E+01    |
| 2153 | 4.832E+04            | 4.729E-02 | 7.088E+01    |
| 2154 | 4.832E+04            | 4.498E-02 | 6.743E+01    |
| 2155 | 4.832E+04            | 4.279E-02 | 6.414E+01    |
| 2156 | 4.832E+04            | 4.070E-02 | 6.101E+01    |
| 2157 | 4.832E+04            | 3.872E-02 | 5.804E+01    |
| 2158 | 4.832E+04            | 3.683E-02 | 5.521E+01    |
| 2159 | 4.832E+04            | 3.503E-02 | 5.251E+01    |
| 2160 | 4.832E+04            | 3.333E-02 | 4.995E+01    |

continued

Table D-20. Emission Rate of Methane from Parcel 2 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2161 | 4.832E+04            | 3.170E-02 | 4.752E+01    |
| 2162 | 4.832E+04            | 3.015E-02 | 4.520E+01    |
| 2163 | 4.832E+04            | 2.868E-02 | 4.299E+01    |
| 2164 | 4.832E+04            | 2.728E-02 | 4.090E+01    |
| 2165 | 4.832E+04            | 2.595E-02 | 3.890E+01    |
| 2166 | 4.832E+04            | 2.469E-02 | 3.701E+01    |
| 2167 | 4.832E+04            | 2.348E-02 | 3.520E+01    |
| 2168 | 4.832E+04            | 2.234E-02 | 3.348E+01    |
| 2169 | 4.832E+04            | 2.125E-02 | 3.185E+01    |
| 2170 | 4.832E+04            | 2.021E-02 | 3.030E+01    |
| 2171 | 4.832E+04            | 1.923E-02 | 2.882E+01    |
| 2172 | 4.832E+04            | 1.829E-02 | 2.741E+01    |
| 2173 | 4.832E+04            | 1.740E-02 | 2.608E+01    |
| 2174 | 4.832E+04            | 1.655E-02 | 2.481E+01    |
| 2175 | 4.832E+04            | 1.574E-02 | 2.360E+01    |
| 2176 | 4.832E+04            | 1.497E-02 | 2.244E+01    |
| 2177 | 4.832E+04            | 1.424E-02 | 2.135E+01    |
| 2178 | 4.832E+04            | 1.355E-02 | 2.031E+01    |
| 2179 | 4.832E+04            | 1.289E-02 | 1.932E+01    |
| 2180 | 4.832E+04            | 1.226E-02 | 1.838E+01    |
| 2181 | 4.832E+04            | 1.166E-02 | 1.748E+01    |
| 2182 | 4.832E+04            | 1.109E-02 | 1.663E+01    |
| 2183 | 4.832E+04            | 1.055E-02 | 1.582E+01    |
| 2184 | 4.832E+04            | 1.004E-02 | 1.505E+01    |
| 2185 | 4.832E+04            | 9.548E-03 | 1.431E+01    |
| 2186 | 4.832E+04            | 9.082E-03 | 1.361E+01    |
| 2187 | 4.832E+04            | 8.639E-03 | 1.295E+01    |
| 2188 | 4.832E+04            | 8.218E-03 | 1.232E+01    |
| 2189 | 4.832E+04            | 7.817E-03 | 1.172E+01    |
| 2190 | 4.832E+04            | 7.436E-03 | 1.115E+01    |
| 2191 | 4.832E+04            | 7.073E-03 | 1.060E+01    |
| 2192 | 4.832E+04            | 6.728E-03 | 1.009E+01    |
| 2193 | 4.832E+04            | 6.400E-03 | 9.593E+00    |
| 2194 | 4.832E+04            | 6.088E-03 | 9.125E+00    |
| 2195 | 4.832E+04            | 5.791E-03 | 8.680E+00    |
| 2196 | 4.832E+04            | 5.509E-03 | 8.257E+00    |
| 2197 | 4.832E+04            | 5.240E-03 | 7.854E+00    |
| 2198 | 4.832E+04            | 4.984E-03 | 7.471E+00    |
| 2199 | 4.832E+04            | 4.741E-03 | 7.107E+00    |
| 2200 | 4.832E+04            | 4.510E-03 | 6.760E+00    |
| 2201 | 4.832E+04            | 4.290E-03 | 6.431E+00    |
| 2202 | 4.832E+04            | 4.081E-03 | 6.117E+00    |
| 2203 | 4.832E+04            | 3.882E-03 | 5.819E+00    |

Table D-21. Emission Rate of Carbon Dioxide from Parcel 2 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA2.PRM

```

=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2000.00 ppmv
Methane : 62.0000 % volume
Carbon Dioxide : 38.0000 % volume
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974   Current Year : 2004   Closure Year: 2004
Capacity : 48325 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      Carbon Dioxide Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      4.832E+03      4.608E+01      2.518E+04
1976      9.665E+03      8.992E+01      4.912E+04
1977      1.450E+04      1.316E+02      7.190E+04
1978      1.933E+04      1.713E+02      9.357E+04
1979      2.416E+04      2.090E+02      1.142E+05
1980      2.899E+04      2.449E+02      1.338E+05
1981      3.383E+04      2.790E+02      1.524E+05
1982      3.866E+04      3.115E+02      1.702E+05
1983      4.349E+04      3.424E+02      1.871E+05
1984      4.832E+04      3.718E+02      2.031E+05
1985      4.832E+04      3.537E+02      1.932E+05
1986      4.832E+04      3.364E+02      1.838E+05
1987      4.832E+04      3.200E+02      1.748E+05
1988      4.832E+04      3.044E+02      1.663E+05
1989      4.832E+04      2.896E+02      1.582E+05
1990      4.832E+04      2.754E+02      1.505E+05
1991      4.832E+04      2.620E+02      1.431E+05
1992      4.832E+04      2.492E+02      1.361E+05
1993      4.832E+04      2.371E+02      1.295E+05
1994      4.832E+04      2.255E+02      1.232E+05
1995      4.832E+04      2.145E+02      1.172E+05
1996      4.832E+04      2.040E+02      1.115E+05
1997      4.832E+04      1.941E+02      1.060E+05
1998      4.832E+04      1.846E+02      1.009E+05
1999      4.832E+04      1.756E+02      9.594E+04
2000      4.832E+04      1.671E+02      9.126E+04
2001      4.832E+04      1.589E+02      8.681E+04
2002      4.832E+04      1.512E+02      8.258E+04
2003      4.832E+04      1.438E+02      7.855E+04
2004      4.832E+04      1.368E+02      7.472E+04
2005      4.832E+04      1.301E+02      7.108E+04
2006      4.832E+04      1.238E+02      6.761E+04
2007      4.832E+04      1.177E+02      6.431E+04
2008      4.832E+04      1.120E+02      6.118E+04
2009      4.832E+04      1.065E+02      5.819E+04
2010      4.832E+04      1.013E+02      5.535E+04
2011      4.832E+04      9.638E+01      5.265E+04
2012      4.832E+04      9.168E+01      5.009E+04
2013      4.832E+04      8.721E+01      4.764E+04
2014      4.832E+04      8.296E+01      4.532E+04
2015      4.832E+04      7.891E+01      4.311E+04
2016      4.832E+04      7.506E+01      4.101E+04
2017      4.832E+04      7.140E+01      3.901E+04
2018      4.832E+04      6.792E+01      3.711E+04
2019      4.832E+04      6.461E+01      3.530E+04
2020      4.832E+04      6.146E+01      3.357E+04
=====

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continued

Table D-21. Emission Rate of Carbon Dioxide from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2021 | 4.832E+04            | 5.846E+01 | 3.194E+04    |
| 2022 | 4.832E+04            | 5.561E+01 | 3.038E+04    |
| 2023 | 4.832E+04            | 5.290E+01 | 2.890E+04    |
| 2024 | 4.832E+04            | 5.032E+01 | 2.749E+04    |
| 2025 | 4.832E+04            | 4.786E+01 | 2.615E+04    |
| 2026 | 4.832E+04            | 4.553E+01 | 2.487E+04    |
| 2027 | 4.832E+04            | 4.331E+01 | 2.366E+04    |
| 2028 | 4.832E+04            | 4.120E+01 | 2.251E+04    |
| 2029 | 4.832E+04            | 3.919E+01 | 2.141E+04    |
| 2030 | 4.832E+04            | 3.728E+01 | 2.036E+04    |
| 2031 | 4.832E+04            | 3.546E+01 | 1.937E+04    |
| 2032 | 4.832E+04            | 3.373E+01 | 1.843E+04    |
| 2033 | 4.832E+04            | 3.208E+01 | 1.753E+04    |
| 2034 | 4.832E+04            | 3.052E+01 | 1.667E+04    |
| 2035 | 4.832E+04            | 2.903E+01 | 1.586E+04    |
| 2036 | 4.832E+04            | 2.761E+01 | 1.509E+04    |
| 2037 | 4.832E+04            | 2.627E+01 | 1.435E+04    |
| 2038 | 4.832E+04            | 2.499E+01 | 1.365E+04    |
| 2039 | 4.832E+04            | 2.377E+01 | 1.298E+04    |
| 2040 | 4.832E+04            | 2.261E+01 | 1.235E+04    |
| 2041 | 4.832E+04            | 2.151E+01 | 1.175E+04    |
| 2042 | 4.832E+04            | 2.046E+01 | 1.118E+04    |
| 2043 | 4.832E+04            | 1.946E+01 | 1.063E+04    |
| 2044 | 4.832E+04            | 1.851E+01 | 1.011E+04    |
| 2045 | 4.832E+04            | 1.761E+01 | 9.619E+03    |
| 2046 | 4.832E+04            | 1.675E+01 | 9.150E+03    |
| 2047 | 4.832E+04            | 1.593E+01 | 8.704E+03    |
| 2048 | 4.832E+04            | 1.516E+01 | 8.279E+03    |
| 2049 | 4.832E+04            | 1.442E+01 | 7.875E+03    |
| 2050 | 4.832E+04            | 1.371E+01 | 7.491E+03    |
| 2051 | 4.832E+04            | 1.304E+01 | 7.126E+03    |
| 2052 | 4.832E+04            | 1.241E+01 | 6.778E+03    |
| 2053 | 4.832E+04            | 1.180E+01 | 6.448E+03    |
| 2054 | 4.832E+04            | 1.123E+01 | 6.133E+03    |
| 2055 | 4.832E+04            | 1.068E+01 | 5.834E+03    |
| 2056 | 4.832E+04            | 1.016E+01 | 5.550E+03    |
| 2057 | 4.832E+04            | 9.663E+00 | 5.279E+03    |
| 2058 | 4.832E+04            | 9.192E+00 | 5.022E+03    |
| 2059 | 4.832E+04            | 8.744E+00 | 4.777E+03    |
| 2060 | 4.832E+04            | 8.317E+00 | 4.544E+03    |
| 2061 | 4.832E+04            | 7.912E+00 | 4.322E+03    |
| 2062 | 4.832E+04            | 7.526E+00 | 4.111E+03    |
| 2063 | 4.832E+04            | 7.159E+00 | 3.911E+03    |
| 2064 | 4.832E+04            | 6.810E+00 | 3.720E+03    |
| 2065 | 4.832E+04            | 6.478E+00 | 3.539E+03    |
| 2066 | 4.832E+04            | 6.162E+00 | 3.366E+03    |
| 2067 | 4.832E+04            | 5.861E+00 | 3.202E+03    |
| 2068 | 4.832E+04            | 5.575E+00 | 3.046E+03    |
| 2069 | 4.832E+04            | 5.303E+00 | 2.897E+03    |
| 2070 | 4.832E+04            | 5.045E+00 | 2.756E+03    |
| 2071 | 4.832E+04            | 4.799E+00 | 2.622E+03    |
| 2072 | 4.832E+04            | 4.565E+00 | 2.494E+03    |
| 2073 | 4.832E+04            | 4.342E+00 | 2.372E+03    |
| 2074 | 4.832E+04            | 4.130E+00 | 2.256E+03    |
| 2075 | 4.832E+04            | 3.929E+00 | 2.146E+03    |
| 2076 | 4.832E+04            | 3.737E+00 | 2.042E+03    |
| 2077 | 4.832E+04            | 3.555E+00 | 1.942E+03    |
| 2078 | 4.832E+04            | 3.382E+00 | 1.847E+03    |
| 2079 | 4.832E+04            | 3.217E+00 | 1.757E+03    |
| 2080 | 4.832E+04            | 3.060E+00 | 1.672E+03    |
| 2081 | 4.832E+04            | 2.911E+00 | 1.590E+03    |
| 2082 | 4.832E+04            | 2.769E+00 | 1.512E+03    |
| 2083 | 4.832E+04            | 2.634E+00 | 1.439E+03    |
| 2084 | 4.832E+04            | 2.505E+00 | 1.369E+03    |
| 2085 | 4.832E+04            | 2.383E+00 | 1.302E+03    |
| 2086 | 4.832E+04            | 2.267E+00 | 1.238E+03    |
| 2087 | 4.832E+04            | 2.156E+00 | 1.178E+03    |
| 2088 | 4.832E+04            | 2.051E+00 | 1.120E+03    |
| 2089 | 4.832E+04            | 1.951E+00 | 1.066E+03    |
| 2090 | 4.832E+04            | 1.856E+00 | 1.014E+03    |

continued

Table D-21. Emission Rate of Carbon Dioxide from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2091 | 4.832E+04            | 1.765E+00 | 9.644E+02    |
| 2092 | 4.832E+04            | 1.679E+00 | 9.174E+02    |
| 2093 | 4.832E+04            | 1.597E+00 | 8.726E+02    |
| 2094 | 4.832E+04            | 1.519E+00 | 8.301E+02    |
| 2095 | 4.832E+04            | 1.445E+00 | 7.896E+02    |
| 2096 | 4.832E+04            | 1.375E+00 | 7.511E+02    |
| 2097 | 4.832E+04            | 1.308E+00 | 7.144E+02    |
| 2098 | 4.832E+04            | 1.244E+00 | 6.796E+02    |
| 2099 | 4.832E+04            | 1.183E+00 | 6.465E+02    |
| 2100 | 4.832E+04            | 1.126E+00 | 6.149E+02    |
| 2101 | 4.832E+04            | 1.071E+00 | 5.849E+02    |
| 2102 | 4.832E+04            | 1.019E+00 | 5.564E+02    |
| 2103 | 4.832E+04            | 9.688E-01 | 5.293E+02    |
| 2104 | 4.832E+04            | 9.216E-01 | 5.035E+02    |
| 2105 | 4.832E+04            | 8.766E-01 | 4.789E+02    |
| 2106 | 4.832E+04            | 8.339E-01 | 4.556E+02    |
| 2107 | 4.832E+04            | 7.932E-01 | 4.333E+02    |
| 2108 | 4.832E+04            | 7.545E-01 | 4.122E+02    |
| 2109 | 4.832E+04            | 7.177E-01 | 3.921E+02    |
| 2110 | 4.832E+04            | 6.827E-01 | 3.730E+02    |
| 2111 | 4.832E+04            | 6.494E-01 | 3.548E+02    |
| 2112 | 4.832E+04            | 6.178E-01 | 3.375E+02    |
| 2113 | 4.832E+04            | 5.876E-01 | 3.210E+02    |
| 2114 | 4.832E+04            | 5.590E-01 | 3.054E+02    |
| 2115 | 4.832E+04            | 5.317E-01 | 2.905E+02    |
| 2116 | 4.832E+04            | 5.058E-01 | 2.763E+02    |
| 2117 | 4.832E+04            | 4.811E-01 | 2.628E+02    |
| 2118 | 4.832E+04            | 4.576E-01 | 2.500E+02    |
| 2119 | 4.832E+04            | 4.353E-01 | 2.378E+02    |
| 2120 | 4.832E+04            | 4.141E-01 | 2.262E+02    |
| 2121 | 4.832E+04            | 3.939E-01 | 2.152E+02    |
| 2122 | 4.832E+04            | 3.747E-01 | 2.047E+02    |
| 2123 | 4.832E+04            | 3.564E-01 | 1.947E+02    |
| 2124 | 4.832E+04            | 3.390E-01 | 1.852E+02    |
| 2125 | 4.832E+04            | 3.225E-01 | 1.762E+02    |
| 2126 | 4.832E+04            | 3.068E-01 | 1.676E+02    |
| 2127 | 4.832E+04            | 2.918E-01 | 1.594E+02    |
| 2128 | 4.832E+04            | 2.776E-01 | 1.516E+02    |
| 2129 | 4.832E+04            | 2.640E-01 | 1.442E+02    |
| 2130 | 4.832E+04            | 2.512E-01 | 1.372E+02    |
| 2131 | 4.832E+04            | 2.389E-01 | 1.305E+02    |
| 2132 | 4.832E+04            | 2.273E-01 | 1.242E+02    |
| 2133 | 4.832E+04            | 2.162E-01 | 1.181E+02    |
| 2134 | 4.832E+04            | 2.056E-01 | 1.123E+02    |
| 2135 | 4.832E+04            | 1.956E-01 | 1.069E+02    |
| 2136 | 4.832E+04            | 1.861E-01 | 1.016E+02    |
| 2137 | 4.832E+04            | 1.770E-01 | 9.669E+01    |
| 2138 | 4.832E+04            | 1.684E-01 | 9.197E+01    |
| 2139 | 4.832E+04            | 1.601E-01 | 8.749E+01    |
| 2140 | 4.832E+04            | 1.523E-01 | 8.322E+01    |
| 2141 | 4.832E+04            | 1.449E-01 | 7.916E+01    |
| 2142 | 4.832E+04            | 1.378E-01 | 7.530E+01    |
| 2143 | 4.832E+04            | 1.311E-01 | 7.163E+01    |
| 2144 | 4.832E+04            | 1.247E-01 | 6.814E+01    |
| 2145 | 4.832E+04            | 1.186E-01 | 6.481E+01    |
| 2146 | 4.832E+04            | 1.129E-01 | 6.165E+01    |
| 2147 | 4.832E+04            | 1.074E-01 | 5.865E+01    |
| 2148 | 4.832E+04            | 1.021E-01 | 5.579E+01    |
| 2149 | 4.832E+04            | 9.713E-02 | 5.306E+01    |
| 2150 | 4.832E+04            | 9.240E-02 | 5.048E+01    |
| 2151 | 4.832E+04            | 8.789E-02 | 4.801E+01    |
| 2152 | 4.832E+04            | 8.360E-02 | 4.567E+01    |
| 2153 | 4.832E+04            | 7.953E-02 | 4.345E+01    |
| 2154 | 4.832E+04            | 7.565E-02 | 4.133E+01    |
| 2155 | 4.832E+04            | 7.196E-02 | 3.931E+01    |
| 2156 | 4.832E+04            | 6.845E-02 | 3.739E+01    |
| 2157 | 4.832E+04            | 6.511E-02 | 3.557E+01    |
| 2158 | 4.832E+04            | 6.194E-02 | 3.384E+01    |
| 2159 | 4.832E+04            | 5.892E-02 | 3.219E+01    |
| 2160 | 4.832E+04            | 5.604E-02 | 3.062E+01    |

continued

Table D-21. Emission Rate of Carbon Dioxide from Parcel 2 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2161 | 4.832E+04            | 5.331E-02 | 2.912E+01    |
| 2162 | 4.832E+04            | 5.071E-02 | 2.770E+01    |
| 2163 | 4.832E+04            | 4.824E-02 | 2.635E+01    |
| 2164 | 4.832E+04            | 4.588E-02 | 2.507E+01    |
| 2165 | 4.832E+04            | 4.365E-02 | 2.384E+01    |
| 2166 | 4.832E+04            | 4.152E-02 | 2.268E+01    |
| 2167 | 4.832E+04            | 3.949E-02 | 2.157E+01    |
| 2168 | 4.832E+04            | 3.757E-02 | 2.052E+01    |
| 2169 | 4.832E+04            | 3.573E-02 | 1.952E+01    |
| 2170 | 4.832E+04            | 3.399E-02 | 1.857E+01    |
| 2171 | 4.832E+04            | 3.233E-02 | 1.766E+01    |
| 2172 | 4.832E+04            | 3.076E-02 | 1.680E+01    |
| 2173 | 4.832E+04            | 2.926E-02 | 1.598E+01    |
| 2174 | 4.832E+04            | 2.783E-02 | 1.520E+01    |
| 2175 | 4.832E+04            | 2.647E-02 | 1.446E+01    |
| 2176 | 4.832E+04            | 2.518E-02 | 1.376E+01    |
| 2177 | 4.832E+04            | 2.395E-02 | 1.309E+01    |
| 2178 | 4.832E+04            | 2.278E-02 | 1.245E+01    |
| 2179 | 4.832E+04            | 2.167E-02 | 1.184E+01    |
| 2180 | 4.832E+04            | 2.062E-02 | 1.126E+01    |
| 2181 | 4.832E+04            | 1.961E-02 | 1.071E+01    |
| 2182 | 4.832E+04            | 1.865E-02 | 1.019E+01    |
| 2183 | 4.832E+04            | 1.774E-02 | 9.694E+00    |
| 2184 | 4.832E+04            | 1.688E-02 | 9.221E+00    |
| 2185 | 4.832E+04            | 1.606E-02 | 8.772E+00    |
| 2186 | 4.832E+04            | 1.527E-02 | 8.344E+00    |
| 2187 | 4.832E+04            | 1.453E-02 | 7.937E+00    |
| 2188 | 4.832E+04            | 1.382E-02 | 7.550E+00    |
| 2189 | 4.832E+04            | 1.315E-02 | 7.182E+00    |
| 2190 | 4.832E+04            | 1.250E-02 | 6.831E+00    |
| 2191 | 4.832E+04            | 1.189E-02 | 6.498E+00    |
| 2192 | 4.832E+04            | 1.131E-02 | 6.181E+00    |
| 2193 | 4.832E+04            | 1.076E-02 | 5.880E+00    |
| 2194 | 4.832E+04            | 1.024E-02 | 5.593E+00    |
| 2195 | 4.832E+04            | 9.739E-03 | 5.320E+00    |
| 2196 | 4.832E+04            | 9.264E-03 | 5.061E+00    |
| 2197 | 4.832E+04            | 8.812E-03 | 4.814E+00    |
| 2198 | 4.832E+04            | 8.382E-03 | 4.579E+00    |
| 2199 | 4.832E+04            | 7.973E-03 | 4.356E+00    |
| 2200 | 4.832E+04            | 7.584E-03 | 4.143E+00    |
| 2201 | 4.832E+04            | 7.215E-03 | 3.941E+00    |
| 2202 | 4.832E+04            | 6.863E-03 | 3.749E+00    |
| 2203 | 4.832E+04            | 6.528E-03 | 3.566E+00    |

Table D-22. Emission Rate of NMOCs from Parcel 2 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA2.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2000.00 ppmv
Methane : 62.0000 % volume
Carbon Dioxide : 38.0000 % volume

=====
                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974   Current Year : 2004   Closure Year: 2004
Capacity : 48325 Mg
Average Acceptance Rate Required from
          Current Year to Closure Year : 0.00 Mg/year

=====
                          Model Results
=====
Year      Refuse In Place (Mg)      NMOC Emission Rate
          (Mg/yr)                  (Cubic m/yr)
=====
1975      4.832E+03                      4.750E-01      1.325E+02
1976      9.665E+03                      9.267E-01      2.585E+02
1977      1.450E+04                      1.357E+00      3.784E+02
1978      1.933E+04                      1.765E+00      4.925E+02
1979      2.416E+04                      2.154E+00      6.010E+02
1980      2.899E+04                      2.524E+00      7.042E+02
1981      3.383E+04                      2.876E+00      8.023E+02
1982      3.866E+04                      3.211E+00      8.957E+02
1983      4.349E+04                      3.529E+00      9.845E+02
1984      4.832E+04                      3.832E+00      1.069E+03
1985      4.832E+04                      3.645E+00      1.017E+03
1986      4.832E+04                      3.467E+00      9.673E+02
1987      4.832E+04                      3.298E+00      9.201E+02
1988      4.832E+04                      3.137E+00      8.752E+02
1989      4.832E+04                      2.984E+00      8.325E+02
1990      4.832E+04                      2.839E+00      7.919E+02
1991      4.832E+04                      2.700E+00      7.533E+02
1992      4.832E+04                      2.569E+00      7.166E+02
1993      4.832E+04                      2.443E+00      6.816E+02
1994      4.832E+04                      2.324E+00      6.484E+02
1995      4.832E+04                      2.211E+00      6.168E+02
1996      4.832E+04                      2.103E+00      5.867E+02
1997      4.832E+04                      2.000E+00      5.581E+02
1998      4.832E+04                      1.903E+00      5.309E+02
1999      4.832E+04                      1.810E+00      5.050E+02
2000      4.832E+04                      1.722E+00      4.803E+02
2001      4.832E+04                      1.638E+00      4.569E+02
2002      4.832E+04                      1.558E+00      4.346E+02
2003      4.832E+04                      1.482E+00      4.134E+02
2004      4.832E+04                      1.410E+00      3.933E+02
2005      4.832E+04                      1.341E+00      3.741E+02
2006      4.832E+04                      1.276E+00      3.558E+02
2007      4.832E+04                      1.213E+00      3.385E+02
2008      4.832E+04                      1.154E+00      3.220E+02
2009      4.832E+04                      1.098E+00      3.063E+02
2010      4.832E+04                      1.044E+00      2.913E+02
2011      4.832E+04                      9.934E-01      2.771E+02
2012      4.832E+04                      9.449E-01      2.636E+02
2013      4.832E+04                      8.988E-01      2.508E+02
2014      4.832E+04                      8.550E-01      2.385E+02
2015      4.832E+04                      8.133E-01      2.269E+02
2016      4.832E+04                      7.736E-01      2.158E+02
2017      4.832E+04                      7.359E-01      2.053E+02
2018      4.832E+04                      7.000E-01      1.953E+02
2019      4.832E+04                      6.659E-01      1.858E+02
2020      4.832E+04                      6.334E-01      1.767E+02

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continued

Table D-22. Emission Rate of NMOCs from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2021 | 4.832E+04            | 6.025E-01 | 1.681E+02    |
| 2022 | 4.832E+04            | 5.731E-01 | 1.599E+02    |
| 2023 | 4.832E+04            | 5.452E-01 | 1.521E+02    |
| 2024 | 4.832E+04            | 5.186E-01 | 1.447E+02    |
| 2025 | 4.832E+04            | 4.933E-01 | 1.376E+02    |
| 2026 | 4.832E+04            | 4.692E-01 | 1.309E+02    |
| 2027 | 4.832E+04            | 4.463E-01 | 1.245E+02    |
| 2028 | 4.832E+04            | 4.246E-01 | 1.184E+02    |
| 2029 | 4.832E+04            | 4.039E-01 | 1.127E+02    |
| 2030 | 4.832E+04            | 3.842E-01 | 1.072E+02    |
| 2031 | 4.832E+04            | 3.654E-01 | 1.020E+02    |
| 2032 | 4.832E+04            | 3.476E-01 | 9.698E+01    |
| 2033 | 4.832E+04            | 3.307E-01 | 9.225E+01    |
| 2034 | 4.832E+04            | 3.145E-01 | 8.775E+01    |
| 2035 | 4.832E+04            | 2.992E-01 | 8.347E+01    |
| 2036 | 4.832E+04            | 2.846E-01 | 7.940E+01    |
| 2037 | 4.832E+04            | 2.707E-01 | 7.553E+01    |
| 2038 | 4.832E+04            | 2.575E-01 | 7.184E+01    |
| 2039 | 4.832E+04            | 2.450E-01 | 6.834E+01    |
| 2040 | 4.832E+04            | 2.330E-01 | 6.501E+01    |
| 2041 | 4.832E+04            | 2.216E-01 | 6.184E+01    |
| 2042 | 4.832E+04            | 2.108E-01 | 5.882E+01    |
| 2043 | 4.832E+04            | 2.006E-01 | 5.595E+01    |
| 2044 | 4.832E+04            | 1.908E-01 | 5.322E+01    |
| 2045 | 4.832E+04            | 1.815E-01 | 5.063E+01    |
| 2046 | 4.832E+04            | 1.726E-01 | 4.816E+01    |
| 2047 | 4.832E+04            | 1.642E-01 | 4.581E+01    |
| 2048 | 4.832E+04            | 1.562E-01 | 4.358E+01    |
| 2049 | 4.832E+04            | 1.486E-01 | 4.145E+01    |
| 2050 | 4.832E+04            | 1.413E-01 | 3.943E+01    |
| 2051 | 4.832E+04            | 1.344E-01 | 3.751E+01    |
| 2052 | 4.832E+04            | 1.279E-01 | 3.568E+01    |
| 2053 | 4.832E+04            | 1.216E-01 | 3.394E+01    |
| 2054 | 4.832E+04            | 1.157E-01 | 3.228E+01    |
| 2055 | 4.832E+04            | 1.101E-01 | 3.071E+01    |
| 2056 | 4.832E+04            | 1.047E-01 | 2.921E+01    |
| 2057 | 4.832E+04            | 9.959E-02 | 2.778E+01    |
| 2058 | 4.832E+04            | 9.474E-02 | 2.643E+01    |
| 2059 | 4.832E+04            | 9.012E-02 | 2.514E+01    |
| 2060 | 4.832E+04            | 8.572E-02 | 2.391E+01    |
| 2061 | 4.832E+04            | 8.154E-02 | 2.275E+01    |
| 2062 | 4.832E+04            | 7.756E-02 | 2.164E+01    |
| 2063 | 4.832E+04            | 7.378E-02 | 2.058E+01    |
| 2064 | 4.832E+04            | 7.018E-02 | 1.958E+01    |
| 2065 | 4.832E+04            | 6.676E-02 | 1.862E+01    |
| 2066 | 4.832E+04            | 6.350E-02 | 1.772E+01    |
| 2067 | 4.832E+04            | 6.041E-02 | 1.685E+01    |
| 2068 | 4.832E+04            | 5.746E-02 | 1.603E+01    |
| 2069 | 4.832E+04            | 5.466E-02 | 1.525E+01    |
| 2070 | 4.832E+04            | 5.199E-02 | 1.450E+01    |
| 2071 | 4.832E+04            | 4.946E-02 | 1.380E+01    |
| 2072 | 4.832E+04            | 4.704E-02 | 1.312E+01    |
| 2073 | 4.832E+04            | 4.475E-02 | 1.248E+01    |
| 2074 | 4.832E+04            | 4.257E-02 | 1.188E+01    |
| 2075 | 4.832E+04            | 4.049E-02 | 1.130E+01    |
| 2076 | 4.832E+04            | 3.852E-02 | 1.075E+01    |
| 2077 | 4.832E+04            | 3.664E-02 | 1.022E+01    |
| 2078 | 4.832E+04            | 3.485E-02 | 9.723E+00    |
| 2079 | 4.832E+04            | 3.315E-02 | 9.249E+00    |
| 2080 | 4.832E+04            | 3.153E-02 | 8.798E+00    |
| 2081 | 4.832E+04            | 3.000E-02 | 8.369E+00    |
| 2082 | 4.832E+04            | 2.853E-02 | 7.960E+00    |
| 2083 | 4.832E+04            | 2.714E-02 | 7.572E+00    |
| 2084 | 4.832E+04            | 2.582E-02 | 7.203E+00    |
| 2085 | 4.832E+04            | 2.456E-02 | 6.852E+00    |
| 2086 | 4.832E+04            | 2.336E-02 | 6.517E+00    |
| 2087 | 4.832E+04            | 2.222E-02 | 6.200E+00    |
| 2088 | 4.832E+04            | 2.114E-02 | 5.897E+00    |
| 2089 | 4.832E+04            | 2.011E-02 | 5.610E+00    |
| 2090 | 4.832E+04            | 1.913E-02 | 5.336E+00    |

continued



Table D-22. Emission Rate of NMOCs from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2091 | 4.832E+04            | 1.819E-02 | 5.076E+00    |
| 2092 | 4.832E+04            | 1.731E-02 | 4.828E+00    |
| 2093 | 4.832E+04            | 1.646E-02 | 4.593E+00    |
| 2094 | 4.832E+04            | 1.566E-02 | 4.369E+00    |
| 2095 | 4.832E+04            | 1.490E-02 | 4.156E+00    |
| 2096 | 4.832E+04            | 1.417E-02 | 3.953E+00    |
| 2097 | 4.832E+04            | 1.348E-02 | 3.760E+00    |
| 2098 | 4.832E+04            | 1.282E-02 | 3.577E+00    |
| 2099 | 4.832E+04            | 1.220E-02 | 3.402E+00    |
| 2100 | 4.832E+04            | 1.160E-02 | 3.236E+00    |
| 2101 | 4.832E+04            | 1.104E-02 | 3.079E+00    |
| 2102 | 4.832E+04            | 1.050E-02 | 2.928E+00    |
| 2103 | 4.832E+04            | 9.985E-03 | 2.786E+00    |
| 2104 | 4.832E+04            | 9.498E-03 | 2.650E+00    |
| 2105 | 4.832E+04            | 9.035E-03 | 2.521E+00    |
| 2106 | 4.832E+04            | 8.594E-03 | 2.398E+00    |
| 2107 | 4.832E+04            | 8.175E-03 | 2.281E+00    |
| 2108 | 4.832E+04            | 7.776E-03 | 2.169E+00    |
| 2109 | 4.832E+04            | 7.397E-03 | 2.064E+00    |
| 2110 | 4.832E+04            | 7.036E-03 | 1.963E+00    |
| 2111 | 4.832E+04            | 6.693E-03 | 1.867E+00    |
| 2112 | 4.832E+04            | 6.367E-03 | 1.776E+00    |
| 2113 | 4.832E+04            | 6.056E-03 | 1.690E+00    |
| 2114 | 4.832E+04            | 5.761E-03 | 1.607E+00    |
| 2115 | 4.832E+04            | 5.480E-03 | 1.529E+00    |
| 2116 | 4.832E+04            | 5.213E-03 | 1.454E+00    |
| 2117 | 4.832E+04            | 4.958E-03 | 1.383E+00    |
| 2118 | 4.832E+04            | 4.717E-03 | 1.316E+00    |
| 2119 | 4.832E+04            | 4.487E-03 | 1.252E+00    |
| 2120 | 4.832E+04            | 4.268E-03 | 1.191E+00    |
| 2121 | 4.832E+04            | 4.060E-03 | 1.133E+00    |
| 2122 | 4.832E+04            | 3.862E-03 | 1.077E+00    |
| 2123 | 4.832E+04            | 3.673E-03 | 1.025E+00    |
| 2124 | 4.832E+04            | 3.494E-03 | 9.748E-01    |
| 2125 | 4.832E+04            | 3.324E-03 | 9.273E-01    |
| 2126 | 4.832E+04            | 3.162E-03 | 8.820E-01    |
| 2127 | 4.832E+04            | 3.007E-03 | 8.390E-01    |
| 2128 | 4.832E+04            | 2.861E-03 | 7.981E-01    |
| 2129 | 4.832E+04            | 2.721E-03 | 7.592E-01    |
| 2130 | 4.832E+04            | 2.589E-03 | 7.222E-01    |
| 2131 | 4.832E+04            | 2.462E-03 | 6.869E-01    |
| 2132 | 4.832E+04            | 2.342E-03 | 6.534E-01    |
| 2133 | 4.832E+04            | 2.228E-03 | 6.216E-01    |
| 2134 | 4.832E+04            | 2.119E-03 | 5.913E-01    |
| 2135 | 4.832E+04            | 2.016E-03 | 5.624E-01    |
| 2136 | 4.832E+04            | 1.918E-03 | 5.350E-01    |
| 2137 | 4.832E+04            | 1.824E-03 | 5.089E-01    |
| 2138 | 4.832E+04            | 1.735E-03 | 4.841E-01    |
| 2139 | 4.832E+04            | 1.651E-03 | 4.605E-01    |
| 2140 | 4.832E+04            | 1.570E-03 | 4.380E-01    |
| 2141 | 4.832E+04            | 1.493E-03 | 4.166E-01    |
| 2142 | 4.832E+04            | 1.421E-03 | 3.963E-01    |
| 2143 | 4.832E+04            | 1.351E-03 | 3.770E-01    |
| 2144 | 4.832E+04            | 1.285E-03 | 3.586E-01    |
| 2145 | 4.832E+04            | 1.223E-03 | 3.411E-01    |
| 2146 | 4.832E+04            | 1.163E-03 | 3.245E-01    |
| 2147 | 4.832E+04            | 1.106E-03 | 3.087E-01    |
| 2148 | 4.832E+04            | 1.052E-03 | 2.936E-01    |
| 2149 | 4.832E+04            | 1.001E-03 | 2.793E-01    |
| 2150 | 4.832E+04            | 9.523E-04 | 2.657E-01    |
| 2151 | 4.832E+04            | 9.058E-04 | 2.527E-01    |
| 2152 | 4.832E+04            | 8.617E-04 | 2.404E-01    |
| 2153 | 4.832E+04            | 8.196E-04 | 2.287E-01    |
| 2154 | 4.832E+04            | 7.797E-04 | 2.175E-01    |
| 2155 | 4.832E+04            | 7.416E-04 | 2.069E-01    |
| 2156 | 4.832E+04            | 7.055E-04 | 1.968E-01    |
| 2157 | 4.832E+04            | 6.711E-04 | 1.872E-01    |
| 2158 | 4.832E+04            | 6.383E-04 | 1.781E-01    |
| 2159 | 4.832E+04            | 6.072E-04 | 1.694E-01    |
| 2160 | 4.832E+04            | 5.776E-04 | 1.611E-01    |

continued

Table D-22. Emission Rate of NMOCs from Parcel 2 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2161 | 4.832E+04            | 5.494E-04 | 1.533E-01    |
| 2162 | 4.832E+04            | 5.226E-04 | 1.458E-01    |
| 2163 | 4.832E+04            | 4.971E-04 | 1.387E-01    |
| 2164 | 4.832E+04            | 4.729E-04 | 1.319E-01    |
| 2165 | 4.832E+04            | 4.498E-04 | 1.255E-01    |
| 2166 | 4.832E+04            | 4.279E-04 | 1.194E-01    |
| 2167 | 4.832E+04            | 4.070E-04 | 1.135E-01    |
| 2168 | 4.832E+04            | 3.872E-04 | 1.080E-01    |
| 2169 | 4.832E+04            | 3.683E-04 | 1.027E-01    |
| 2170 | 4.832E+04            | 3.503E-04 | 9.773E-02    |
| 2171 | 4.832E+04            | 3.332E-04 | 9.297E-02    |
| 2172 | 4.832E+04            | 3.170E-04 | 8.843E-02    |
| 2173 | 4.832E+04            | 3.015E-04 | 8.412E-02    |
| 2174 | 4.832E+04            | 2.868E-04 | 8.002E-02    |
| 2175 | 4.832E+04            | 2.728E-04 | 7.611E-02    |
| 2176 | 4.832E+04            | 2.595E-04 | 7.240E-02    |
| 2177 | 4.832E+04            | 2.469E-04 | 6.887E-02    |
| 2178 | 4.832E+04            | 2.348E-04 | 6.551E-02    |
| 2179 | 4.832E+04            | 2.234E-04 | 6.232E-02    |
| 2180 | 4.832E+04            | 2.125E-04 | 5.928E-02    |
| 2181 | 4.832E+04            | 2.021E-04 | 5.639E-02    |
| 2182 | 4.832E+04            | 1.923E-04 | 5.364E-02    |
| 2183 | 4.832E+04            | 1.829E-04 | 5.102E-02    |
| 2184 | 4.832E+04            | 1.740E-04 | 4.853E-02    |
| 2185 | 4.832E+04            | 1.655E-04 | 4.617E-02    |
| 2186 | 4.832E+04            | 1.574E-04 | 4.391E-02    |
| 2187 | 4.832E+04            | 1.497E-04 | 4.177E-02    |
| 2188 | 4.832E+04            | 1.424E-04 | 3.974E-02    |
| 2189 | 4.832E+04            | 1.355E-04 | 3.780E-02    |
| 2190 | 4.832E+04            | 1.289E-04 | 3.595E-02    |
| 2191 | 4.832E+04            | 1.226E-04 | 3.420E-02    |
| 2192 | 4.832E+04            | 1.166E-04 | 3.253E-02    |
| 2193 | 4.832E+04            | 1.109E-04 | 3.095E-02    |
| 2194 | 4.832E+04            | 1.055E-04 | 2.944E-02    |
| 2195 | 4.832E+04            | 1.004E-04 | 2.800E-02    |
| 2196 | 4.832E+04            | 9.547E-05 | 2.664E-02    |
| 2197 | 4.832E+04            | 9.082E-05 | 2.534E-02    |
| 2198 | 4.832E+04            | 8.639E-05 | 2.410E-02    |
| 2199 | 4.832E+04            | 8.217E-05 | 2.293E-02    |
| 2200 | 4.832E+04            | 7.817E-05 | 2.181E-02    |
| 2201 | 4.832E+04            | 7.435E-05 | 2.074E-02    |
| 2202 | 4.832E+04            | 7.073E-05 | 1.973E-02    |
| 2203 | 4.832E+04            | 6.728E-05 | 1.877E-02    |

Table D-23. Emission Rate of Benzene from Parcel 2 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA2.PRM

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=====
Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2000.00 ppmv
Methane : 62.0000 % volume
Carbon Dioxide : 38.0000 % volume
Air Pollutant : Benzene (HAP/VOC)
Molecular Wt = 78.12      Concentration = 0.310000 ppmV
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 48325 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
Model Results
=====
Year      Refuse In Place (Mg)      Benzene (HAP/VOC) Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      4.832E+03      6.673E-05      2.054E-02
1976      9.665E+03      1.302E-04      4.007E-02
1977      1.450E+04      1.906E-04      5.866E-02
1978      1.933E+04      2.480E-04      7.634E-02
1979      2.416E+04      3.027E-04      9.315E-02
1980      2.899E+04      3.546E-04      1.091E-01
1981      3.383E+04      4.041E-04      1.244E-01
1982      3.866E+04      4.511E-04      1.388E-01
1983      4.349E+04      4.958E-04      1.526E-01
1984      4.832E+04      5.384E-04      1.657E-01
1985      4.832E+04      5.121E-04      1.576E-01
1986      4.832E+04      4.871E-04      1.499E-01
1987      4.832E+04      4.634E-04      1.426E-01
1988      4.832E+04      4.408E-04      1.357E-01
1989      4.832E+04      4.193E-04      1.290E-01
1990      4.832E+04      3.988E-04      1.228E-01
1991      4.832E+04      3.794E-04      1.168E-01
1992      4.832E+04      3.609E-04      1.111E-01
1993      4.832E+04      3.433E-04      1.057E-01
1994      4.832E+04      3.265E-04      1.005E-01
1995      4.832E+04      3.106E-04      9.560E-02
1996      4.832E+04      2.955E-04      9.094E-02
1997      4.832E+04      2.811E-04      8.650E-02
1998      4.832E+04      2.674E-04      8.228E-02
1999      4.832E+04      2.543E-04      7.827E-02
2000      4.832E+04      2.419E-04      7.445E-02
2001      4.832E+04      2.301E-04      7.082E-02
2002      4.832E+04      2.189E-04      6.737E-02
2003      4.832E+04      2.082E-04      6.408E-02
2004      4.832E+04      1.981E-04      6.096E-02
2005      4.832E+04      1.884E-04      5.798E-02
2006      4.832E+04      1.792E-04      5.516E-02
2007      4.832E+04      1.705E-04      5.247E-02
2008      4.832E+04      1.622E-04      4.991E-02
2009      4.832E+04      1.542E-04      4.747E-02
2010      4.832E+04      1.467E-04      4.516E-02
2011      4.832E+04      1.396E-04      4.296E-02
2012      4.832E+04      1.328E-04      4.086E-02
2013      4.832E+04      1.263E-04      3.887E-02
2014      4.832E+04      1.201E-04      3.697E-02
2015      4.832E+04      1.143E-04      3.517E-02
2016      4.832E+04      1.087E-04      3.345E-02
2017      4.832E+04      1.034E-04      3.182E-02
2018      4.832E+04      9.835E-05      3.027E-02
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continued

Table D-23. Emission Rate of Benzene from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 4.832E+04            | 9.356E-05 | 2.879E-02    |
| 2020 | 4.832E+04            | 8.899E-05 | 2.739E-02    |
| 2021 | 4.832E+04            | 8.465E-05 | 2.605E-02    |
| 2022 | 4.832E+04            | 8.053E-05 | 2.478E-02    |
| 2023 | 4.832E+04            | 7.660E-05 | 2.357E-02    |
| 2024 | 4.832E+04            | 7.286E-05 | 2.242E-02    |
| 2025 | 4.832E+04            | 6.931E-05 | 2.133E-02    |
| 2026 | 4.832E+04            | 6.593E-05 | 2.029E-02    |
| 2027 | 4.832E+04            | 6.271E-05 | 1.930E-02    |
| 2028 | 4.832E+04            | 5.965E-05 | 1.836E-02    |
| 2029 | 4.832E+04            | 5.675E-05 | 1.746E-02    |
| 2030 | 4.832E+04            | 5.398E-05 | 1.661E-02    |
| 2031 | 4.832E+04            | 5.135E-05 | 1.580E-02    |
| 2032 | 4.832E+04            | 4.884E-05 | 1.503E-02    |
| 2033 | 4.832E+04            | 4.646E-05 | 1.430E-02    |
| 2034 | 4.832E+04            | 4.419E-05 | 1.360E-02    |
| 2035 | 4.832E+04            | 4.204E-05 | 1.294E-02    |
| 2036 | 4.832E+04            | 3.999E-05 | 1.231E-02    |
| 2037 | 4.832E+04            | 3.804E-05 | 1.171E-02    |
| 2038 | 4.832E+04            | 3.618E-05 | 1.114E-02    |
| 2039 | 4.832E+04            | 3.442E-05 | 1.059E-02    |
| 2040 | 4.832E+04            | 3.274E-05 | 1.008E-02    |
| 2041 | 4.832E+04            | 3.114E-05 | 9.585E-03    |
| 2042 | 4.832E+04            | 2.962E-05 | 9.117E-03    |
| 2043 | 4.832E+04            | 2.818E-05 | 8.672E-03    |
| 2044 | 4.832E+04            | 2.680E-05 | 8.250E-03    |
| 2045 | 4.832E+04            | 2.550E-05 | 7.847E-03    |
| 2046 | 4.832E+04            | 2.425E-05 | 7.464E-03    |
| 2047 | 4.832E+04            | 2.307E-05 | 7.100E-03    |
| 2048 | 4.832E+04            | 2.195E-05 | 6.754E-03    |
| 2049 | 4.832E+04            | 2.088E-05 | 6.425E-03    |
| 2050 | 4.832E+04            | 1.986E-05 | 6.111E-03    |
| 2051 | 4.832E+04            | 1.889E-05 | 5.813E-03    |
| 2052 | 4.832E+04            | 1.797E-05 | 5.530E-03    |
| 2053 | 4.832E+04            | 1.709E-05 | 5.260E-03    |
| 2054 | 4.832E+04            | 1.626E-05 | 5.004E-03    |
| 2055 | 4.832E+04            | 1.546E-05 | 4.760E-03    |
| 2056 | 4.832E+04            | 1.471E-05 | 4.527E-03    |
| 2057 | 4.832E+04            | 1.399E-05 | 4.307E-03    |
| 2058 | 4.832E+04            | 1.331E-05 | 4.097E-03    |
| 2059 | 4.832E+04            | 1.266E-05 | 3.897E-03    |
| 2060 | 4.832E+04            | 1.204E-05 | 3.707E-03    |
| 2061 | 4.832E+04            | 1.146E-05 | 3.526E-03    |
| 2062 | 4.832E+04            | 1.090E-05 | 3.354E-03    |
| 2063 | 4.832E+04            | 1.037E-05 | 3.190E-03    |
| 2064 | 4.832E+04            | 9.861E-06 | 3.035E-03    |
| 2065 | 4.832E+04            | 9.380E-06 | 2.887E-03    |
| 2066 | 4.832E+04            | 8.922E-06 | 2.746E-03    |
| 2067 | 4.832E+04            | 8.487E-06 | 2.612E-03    |
| 2068 | 4.832E+04            | 8.073E-06 | 2.485E-03    |
| 2069 | 4.832E+04            | 7.680E-06 | 2.364E-03    |
| 2070 | 4.832E+04            | 7.305E-06 | 2.248E-03    |
| 2071 | 4.832E+04            | 6.949E-06 | 2.139E-03    |
| 2072 | 4.832E+04            | 6.610E-06 | 2.034E-03    |
| 2073 | 4.832E+04            | 6.288E-06 | 1.935E-03    |
| 2074 | 4.832E+04            | 5.981E-06 | 1.841E-03    |
| 2075 | 4.832E+04            | 5.689E-06 | 1.751E-03    |
| 2076 | 4.832E+04            | 5.412E-06 | 1.666E-03    |
| 2077 | 4.832E+04            | 5.148E-06 | 1.584E-03    |
| 2078 | 4.832E+04            | 4.897E-06 | 1.507E-03    |
| 2079 | 4.832E+04            | 4.658E-06 | 1.434E-03    |
| 2080 | 4.832E+04            | 4.431E-06 | 1.364E-03    |
| 2081 | 4.832E+04            | 4.215E-06 | 1.297E-03    |
| 2082 | 4.832E+04            | 4.009E-06 | 1.234E-03    |
| 2083 | 4.832E+04            | 3.814E-06 | 1.174E-03    |
| 2084 | 4.832E+04            | 3.628E-06 | 1.116E-03    |
| 2085 | 4.832E+04            | 3.451E-06 | 1.062E-03    |
| 2086 | 4.832E+04            | 3.282E-06 | 1.010E-03    |
| 2087 | 4.832E+04            | 3.122E-06 | 9.609E-04    |
| 2088 | 4.832E+04            | 2.970E-06 | 9.141E-04    |

continued

Table D-23. Emission Rate of Benzene from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 4.832E+04            | 2.825E-06 | 8.695E-04    |
| 2090 | 4.832E+04            | 2.687E-06 | 8.271E-04    |
| 2091 | 4.832E+04            | 2.556E-06 | 7.867E-04    |
| 2092 | 4.832E+04            | 2.432E-06 | 7.484E-04    |
| 2093 | 4.832E+04            | 2.313E-06 | 7.119E-04    |
| 2094 | 4.832E+04            | 2.200E-06 | 6.772E-04    |
| 2095 | 4.832E+04            | 2.093E-06 | 6.441E-04    |
| 2096 | 4.832E+04            | 1.991E-06 | 6.127E-04    |
| 2097 | 4.832E+04            | 1.894E-06 | 5.828E-04    |
| 2098 | 4.832E+04            | 1.801E-06 | 5.544E-04    |
| 2099 | 4.832E+04            | 1.714E-06 | 5.274E-04    |
| 2100 | 4.832E+04            | 1.630E-06 | 5.017E-04    |
| 2101 | 4.832E+04            | 1.550E-06 | 4.772E-04    |
| 2102 | 4.832E+04            | 1.475E-06 | 4.539E-04    |
| 2103 | 4.832E+04            | 1.403E-06 | 4.318E-04    |
| 2104 | 4.832E+04            | 1.335E-06 | 4.107E-04    |
| 2105 | 4.832E+04            | 1.269E-06 | 3.907E-04    |
| 2106 | 4.832E+04            | 1.208E-06 | 3.716E-04    |
| 2107 | 4.832E+04            | 1.149E-06 | 3.535E-04    |
| 2108 | 4.832E+04            | 1.093E-06 | 3.363E-04    |
| 2109 | 4.832E+04            | 1.039E-06 | 3.199E-04    |
| 2110 | 4.832E+04            | 9.886E-07 | 3.043E-04    |
| 2111 | 4.832E+04            | 9.404E-07 | 2.894E-04    |
| 2112 | 4.832E+04            | 8.946E-07 | 2.753E-04    |
| 2113 | 4.832E+04            | 8.509E-07 | 2.619E-04    |
| 2114 | 4.832E+04            | 8.094E-07 | 2.491E-04    |
| 2115 | 4.832E+04            | 7.700E-07 | 2.370E-04    |
| 2116 | 4.832E+04            | 7.324E-07 | 2.254E-04    |
| 2117 | 4.832E+04            | 6.967E-07 | 2.144E-04    |
| 2118 | 4.832E+04            | 6.627E-07 | 2.040E-04    |
| 2119 | 4.832E+04            | 6.304E-07 | 1.940E-04    |
| 2120 | 4.832E+04            | 5.996E-07 | 1.845E-04    |
| 2121 | 4.832E+04            | 5.704E-07 | 1.755E-04    |
| 2122 | 4.832E+04            | 5.426E-07 | 1.670E-04    |
| 2123 | 4.832E+04            | 5.161E-07 | 1.588E-04    |
| 2124 | 4.832E+04            | 4.909E-07 | 1.511E-04    |
| 2125 | 4.832E+04            | 4.670E-07 | 1.437E-04    |
| 2126 | 4.832E+04            | 4.442E-07 | 1.367E-04    |
| 2127 | 4.832E+04            | 4.226E-07 | 1.300E-04    |
| 2128 | 4.832E+04            | 4.019E-07 | 1.237E-04    |
| 2129 | 4.832E+04            | 3.823E-07 | 1.177E-04    |
| 2130 | 4.832E+04            | 3.637E-07 | 1.119E-04    |
| 2131 | 4.832E+04            | 3.460E-07 | 1.065E-04    |
| 2132 | 4.832E+04            | 3.291E-07 | 1.013E-04    |
| 2133 | 4.832E+04            | 3.130E-07 | 9.634E-05    |
| 2134 | 4.832E+04            | 2.978E-07 | 9.164E-05    |
| 2135 | 4.832E+04            | 2.832E-07 | 8.717E-05    |
| 2136 | 4.832E+04            | 2.694E-07 | 8.292E-05    |
| 2137 | 4.832E+04            | 2.563E-07 | 7.888E-05    |
| 2138 | 4.832E+04            | 2.438E-07 | 7.503E-05    |
| 2139 | 4.832E+04            | 2.319E-07 | 7.137E-05    |
| 2140 | 4.832E+04            | 2.206E-07 | 6.789E-05    |
| 2141 | 4.832E+04            | 2.098E-07 | 6.458E-05    |
| 2142 | 4.832E+04            | 1.996E-07 | 6.143E-05    |
| 2143 | 4.832E+04            | 1.899E-07 | 5.843E-05    |
| 2144 | 4.832E+04            | 1.806E-07 | 5.558E-05    |
| 2145 | 4.832E+04            | 1.718E-07 | 5.287E-05    |
| 2146 | 4.832E+04            | 1.634E-07 | 5.030E-05    |
| 2147 | 4.832E+04            | 1.555E-07 | 4.784E-05    |
| 2148 | 4.832E+04            | 1.479E-07 | 4.551E-05    |
| 2149 | 4.832E+04            | 1.407E-07 | 4.329E-05    |
| 2150 | 4.832E+04            | 1.338E-07 | 4.118E-05    |
| 2151 | 4.832E+04            | 1.273E-07 | 3.917E-05    |
| 2152 | 4.832E+04            | 1.211E-07 | 3.726E-05    |
| 2153 | 4.832E+04            | 1.152E-07 | 3.544E-05    |
| 2154 | 4.832E+04            | 1.095E-07 | 3.371E-05    |
| 2155 | 4.832E+04            | 1.042E-07 | 3.207E-05    |
| 2156 | 4.832E+04            | 9.912E-08 | 3.051E-05    |
| 2157 | 4.832E+04            | 9.429E-08 | 2.902E-05    |
| 2158 | 4.832E+04            | 8.969E-08 | 2.760E-05    |

continued

Table D-23. Emission Rate of Benzene from Parcel 2 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 4.832E+04            | 8.531E-08 | 2.626E-05    |
| 2160 | 4.832E+04            | 8.115E-08 | 2.498E-05    |
| 2161 | 4.832E+04            | 7.719E-08 | 2.376E-05    |
| 2162 | 4.832E+04            | 7.343E-08 | 2.260E-05    |
| 2163 | 4.832E+04            | 6.985E-08 | 2.150E-05    |
| 2164 | 4.832E+04            | 6.644E-08 | 2.045E-05    |
| 2165 | 4.832E+04            | 6.320E-08 | 1.945E-05    |
| 2166 | 4.832E+04            | 6.012E-08 | 1.850E-05    |
| 2167 | 4.832E+04            | 5.719E-08 | 1.760E-05    |
| 2168 | 4.832E+04            | 5.440E-08 | 1.674E-05    |
| 2169 | 4.832E+04            | 5.174E-08 | 1.593E-05    |
| 2170 | 4.832E+04            | 4.922E-08 | 1.515E-05    |
| 2171 | 4.832E+04            | 4.682E-08 | 1.441E-05    |
| 2172 | 4.832E+04            | 4.454E-08 | 1.371E-05    |
| 2173 | 4.832E+04            | 4.237E-08 | 1.304E-05    |
| 2174 | 4.832E+04            | 4.030E-08 | 1.240E-05    |
| 2175 | 4.832E+04            | 3.833E-08 | 1.180E-05    |
| 2176 | 4.832E+04            | 3.646E-08 | 1.122E-05    |
| 2177 | 4.832E+04            | 3.469E-08 | 1.068E-05    |
| 2178 | 4.832E+04            | 3.299E-08 | 1.015E-05    |
| 2179 | 4.832E+04            | 3.138E-08 | 9.659E-06    |
| 2180 | 4.832E+04            | 2.985E-08 | 9.188E-06    |
| 2181 | 4.832E+04            | 2.840E-08 | 8.740E-06    |
| 2182 | 4.832E+04            | 2.701E-08 | 8.314E-06    |
| 2183 | 4.832E+04            | 2.570E-08 | 7.908E-06    |
| 2184 | 4.832E+04            | 2.444E-08 | 7.523E-06    |
| 2185 | 4.832E+04            | 2.325E-08 | 7.156E-06    |
| 2186 | 4.832E+04            | 2.212E-08 | 6.807E-06    |
| 2187 | 4.832E+04            | 2.104E-08 | 6.475E-06    |
| 2188 | 4.832E+04            | 2.001E-08 | 6.159E-06    |
| 2189 | 4.832E+04            | 1.904E-08 | 5.859E-06    |
| 2190 | 4.832E+04            | 1.811E-08 | 5.573E-06    |
| 2191 | 4.832E+04            | 1.722E-08 | 5.301E-06    |
| 2192 | 4.832E+04            | 1.638E-08 | 5.043E-06    |
| 2193 | 4.832E+04            | 1.559E-08 | 4.797E-06    |
| 2194 | 4.832E+04            | 1.483E-08 | 4.563E-06    |
| 2195 | 4.832E+04            | 1.410E-08 | 4.340E-06    |
| 2196 | 4.832E+04            | 1.341E-08 | 4.128E-06    |
| 2197 | 4.832E+04            | 1.276E-08 | 3.927E-06    |
| 2198 | 4.832E+04            | 1.214E-08 | 3.736E-06    |
| 2199 | 4.832E+04            | 1.155E-08 | 3.553E-06    |
| 2200 | 4.832E+04            | 1.098E-08 | 3.380E-06    |
| 2201 | 4.832E+04            | 1.045E-08 | 3.215E-06    |
| 2202 | 4.832E+04            | 9.938E-09 | 3.058E-06    |
| 2203 | 4.832E+04            | 9.453E-09 | 2.909E-06    |

Table D-24. Emission Rate of Chlorobenzene from Parcel 2 for Years 1975 to 2203.

Source: H:\3000\030177-2.000\030177-1.003\BUSHVA-1\STRATA2.PRM

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=====
                        Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2000.00 ppmv
Methane : 62.0000 % volume
Carbon Dioxide : 38.0000 % volume
Air Pollutant : Chlorobenzene (HAP/VOC)
Molecular Wt = 112.56      Concentration =      0.210000 ppmV
=====

                        Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 48325 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                        Model Results
=====
Year      Refuse In Place (Mg)      Chlorobenzene (HAP/VOC) Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      4.832E+03      6.514E-05      1.391E-02
1976      9.665E+03      1.271E-04      2.715E-02
1977      1.450E+04      1.860E-04      3.974E-02
1978      1.933E+04      2.421E-04      5.171E-02
1979      2.416E+04      2.954E-04      6.310E-02
1980      2.899E+04      3.462E-04      7.394E-02
1981      3.383E+04      3.944E-04      8.424E-02
1982      3.866E+04      4.403E-04      9.405E-02
1983      4.349E+04      4.840E-04      1.034E-01
1984      4.832E+04      5.255E-04      1.122E-01
1985      4.832E+04      4.999E-04      1.068E-01
1986      4.832E+04      4.755E-04      1.016E-01
1987      4.832E+04      4.523E-04      9.661E-02
1988      4.832E+04      4.302E-04      9.190E-02
1989      4.832E+04      4.093E-04      8.742E-02
1990      4.832E+04      3.893E-04      8.315E-02
1991      4.832E+04      3.703E-04      7.910E-02
1992      4.832E+04      3.523E-04      7.524E-02
1993      4.832E+04      3.351E-04      7.157E-02
1994      4.832E+04      3.187E-04      6.808E-02
1995      4.832E+04      3.032E-04      6.476E-02
1996      4.832E+04      2.884E-04      6.160E-02
1997      4.832E+04      2.743E-04      5.860E-02
1998      4.832E+04      2.610E-04      5.574E-02
1999      4.832E+04      2.482E-04      5.302E-02
2000      4.832E+04      2.361E-04      5.044E-02
2001      4.832E+04      2.246E-04      4.798E-02
2002      4.832E+04      2.137E-04      4.564E-02
2003      4.832E+04      2.032E-04      4.341E-02
2004      4.832E+04      1.933E-04      4.129E-02
2005      4.832E+04      1.839E-04      3.928E-02
2006      4.832E+04      1.749E-04      3.736E-02
2007      4.832E+04      1.664E-04      3.554E-02
2008      4.832E+04      1.583E-04      3.381E-02
2009      4.832E+04      1.506E-04      3.216E-02
2010      4.832E+04      1.432E-04      3.059E-02
2011      4.832E+04      1.362E-04      2.910E-02
2012      4.832E+04      1.296E-04      2.768E-02
2013      4.832E+04      1.233E-04      2.633E-02
2014      4.832E+04      1.173E-04      2.505E-02
2015      4.832E+04      1.115E-04      2.382E-02
2016      4.832E+04      1.061E-04      2.266E-02
2017      4.832E+04      1.009E-04      2.156E-02
2018      4.832E+04      9.600E-05      2.051E-02
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continued

Table D-24. Emission Rate of Chlorobenzene from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 4.832E+04            | 9.132E-05 | 1.951E-02    |
| 2020 | 4.832E+04            | 8.686E-05 | 1.855E-02    |
| 2021 | 4.832E+04            | 8.263E-05 | 1.765E-02    |
| 2022 | 4.832E+04            | 7.860E-05 | 1.679E-02    |
| 2023 | 4.832E+04            | 7.476E-05 | 1.597E-02    |
| 2024 | 4.832E+04            | 7.112E-05 | 1.519E-02    |
| 2025 | 4.832E+04            | 6.765E-05 | 1.445E-02    |
| 2026 | 4.832E+04            | 6.435E-05 | 1.375E-02    |
| 2027 | 4.832E+04            | 6.121E-05 | 1.307E-02    |
| 2028 | 4.832E+04            | 5.823E-05 | 1.244E-02    |
| 2029 | 4.832E+04            | 5.539E-05 | 1.183E-02    |
| 2030 | 4.832E+04            | 5.269E-05 | 1.125E-02    |
| 2031 | 4.832E+04            | 5.012E-05 | 1.070E-02    |
| 2032 | 4.832E+04            | 4.767E-05 | 1.018E-02    |
| 2033 | 4.832E+04            | 4.535E-05 | 9.686E-03    |
| 2034 | 4.832E+04            | 4.314E-05 | 9.214E-03    |
| 2035 | 4.832E+04            | 4.103E-05 | 8.764E-03    |
| 2036 | 4.832E+04            | 3.903E-05 | 8.337E-03    |
| 2037 | 4.832E+04            | 3.713E-05 | 7.930E-03    |
| 2038 | 4.832E+04            | 3.532E-05 | 7.544E-03    |
| 2039 | 4.832E+04            | 3.359E-05 | 7.176E-03    |
| 2040 | 4.832E+04            | 3.196E-05 | 6.826E-03    |
| 2041 | 4.832E+04            | 3.040E-05 | 6.493E-03    |
| 2042 | 4.832E+04            | 2.891E-05 | 6.176E-03    |
| 2043 | 4.832E+04            | 2.750E-05 | 5.875E-03    |
| 2044 | 4.832E+04            | 2.616E-05 | 5.588E-03    |
| 2045 | 4.832E+04            | 2.489E-05 | 5.316E-03    |
| 2046 | 4.832E+04            | 2.367E-05 | 5.057E-03    |
| 2047 | 4.832E+04            | 2.252E-05 | 4.810E-03    |
| 2048 | 4.832E+04            | 2.142E-05 | 4.575E-03    |
| 2049 | 4.832E+04            | 2.038E-05 | 4.352E-03    |
| 2050 | 4.832E+04            | 1.938E-05 | 4.140E-03    |
| 2051 | 4.832E+04            | 1.844E-05 | 3.938E-03    |
| 2052 | 4.832E+04            | 1.754E-05 | 3.746E-03    |
| 2053 | 4.832E+04            | 1.668E-05 | 3.563E-03    |
| 2054 | 4.832E+04            | 1.587E-05 | 3.390E-03    |
| 2055 | 4.832E+04            | 1.509E-05 | 3.224E-03    |
| 2056 | 4.832E+04            | 1.436E-05 | 3.067E-03    |
| 2057 | 4.832E+04            | 1.366E-05 | 2.917E-03    |
| 2058 | 4.832E+04            | 1.299E-05 | 2.775E-03    |
| 2059 | 4.832E+04            | 1.236E-05 | 2.640E-03    |
| 2060 | 4.832E+04            | 1.176E-05 | 2.511E-03    |
| 2061 | 4.832E+04            | 1.118E-05 | 2.389E-03    |
| 2062 | 4.832E+04            | 1.064E-05 | 2.272E-03    |
| 2063 | 4.832E+04            | 1.012E-05 | 2.161E-03    |
| 2064 | 4.832E+04            | 9.625E-06 | 2.056E-03    |
| 2065 | 4.832E+04            | 9.155E-06 | 1.956E-03    |
| 2066 | 4.832E+04            | 8.709E-06 | 1.860E-03    |
| 2067 | 4.832E+04            | 8.284E-06 | 1.769E-03    |
| 2068 | 4.832E+04            | 7.880E-06 | 1.683E-03    |
| 2069 | 4.832E+04            | 7.496E-06 | 1.601E-03    |
| 2070 | 4.832E+04            | 7.130E-06 | 1.523E-03    |
| 2071 | 4.832E+04            | 6.783E-06 | 1.449E-03    |
| 2072 | 4.832E+04            | 6.452E-06 | 1.378E-03    |
| 2073 | 4.832E+04            | 6.137E-06 | 1.311E-03    |
| 2074 | 4.832E+04            | 5.838E-06 | 1.247E-03    |
| 2075 | 4.832E+04            | 5.553E-06 | 1.186E-03    |
| 2076 | 4.832E+04            | 5.282E-06 | 1.128E-03    |
| 2077 | 4.832E+04            | 5.025E-06 | 1.073E-03    |
| 2078 | 4.832E+04            | 4.780E-06 | 1.021E-03    |
| 2079 | 4.832E+04            | 4.546E-06 | 9.711E-04    |
| 2080 | 4.832E+04            | 4.325E-06 | 9.238E-04    |
| 2081 | 4.832E+04            | 4.114E-06 | 8.787E-04    |
| 2082 | 4.832E+04            | 3.913E-06 | 8.358E-04    |
| 2083 | 4.832E+04            | 3.722E-06 | 7.951E-04    |
| 2084 | 4.832E+04            | 3.541E-06 | 7.563E-04    |
| 2085 | 4.832E+04            | 3.368E-06 | 7.194E-04    |
| 2086 | 4.832E+04            | 3.204E-06 | 6.843E-04    |
| 2087 | 4.832E+04            | 3.048E-06 | 6.510E-04    |
| 2088 | 4.832E+04            | 2.899E-06 | 6.192E-04    |

continued



Table D-24. Emission Rate of Chlorobenzene from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 4.832E+04            | 2.758E-06 | 5.890E-04    |
| 2090 | 4.832E+04            | 2.623E-06 | 5.603E-04    |
| 2091 | 4.832E+04            | 2.495E-06 | 5.330E-04    |
| 2092 | 4.832E+04            | 2.373E-06 | 5.070E-04    |
| 2093 | 4.832E+04            | 2.258E-06 | 4.822E-04    |
| 2094 | 4.832E+04            | 2.148E-06 | 4.587E-04    |
| 2095 | 4.832E+04            | 2.043E-06 | 4.364E-04    |
| 2096 | 4.832E+04            | 1.943E-06 | 4.151E-04    |
| 2097 | 4.832E+04            | 1.848E-06 | 3.948E-04    |
| 2098 | 4.832E+04            | 1.758E-06 | 3.756E-04    |
| 2099 | 4.832E+04            | 1.673E-06 | 3.573E-04    |
| 2100 | 4.832E+04            | 1.591E-06 | 3.398E-04    |
| 2101 | 4.832E+04            | 1.513E-06 | 3.233E-04    |
| 2102 | 4.832E+04            | 1.440E-06 | 3.075E-04    |
| 2103 | 4.832E+04            | 1.369E-06 | 2.925E-04    |
| 2104 | 4.832E+04            | 1.303E-06 | 2.782E-04    |
| 2105 | 4.832E+04            | 1.239E-06 | 2.647E-04    |
| 2106 | 4.832E+04            | 1.179E-06 | 2.518E-04    |
| 2107 | 4.832E+04            | 1.121E-06 | 2.395E-04    |
| 2108 | 4.832E+04            | 1.066E-06 | 2.278E-04    |
| 2109 | 4.832E+04            | 1.014E-06 | 2.167E-04    |
| 2110 | 4.832E+04            | 9.650E-07 | 2.061E-04    |
| 2111 | 4.832E+04            | 9.179E-07 | 1.961E-04    |
| 2112 | 4.832E+04            | 8.731E-07 | 1.865E-04    |
| 2113 | 4.832E+04            | 8.306E-07 | 1.774E-04    |
| 2114 | 4.832E+04            | 7.901E-07 | 1.688E-04    |
| 2115 | 4.832E+04            | 7.515E-07 | 1.605E-04    |
| 2116 | 4.832E+04            | 7.149E-07 | 1.527E-04    |
| 2117 | 4.832E+04            | 6.800E-07 | 1.452E-04    |
| 2118 | 4.832E+04            | 6.468E-07 | 1.382E-04    |
| 2119 | 4.832E+04            | 6.153E-07 | 1.314E-04    |
| 2120 | 4.832E+04            | 5.853E-07 | 1.250E-04    |
| 2121 | 4.832E+04            | 5.567E-07 | 1.189E-04    |
| 2122 | 4.832E+04            | 5.296E-07 | 1.131E-04    |
| 2123 | 4.832E+04            | 5.038E-07 | 1.076E-04    |
| 2124 | 4.832E+04            | 4.792E-07 | 1.024E-04    |
| 2125 | 4.832E+04            | 4.558E-07 | 9.736E-05    |
| 2126 | 4.832E+04            | 4.336E-07 | 9.261E-05    |
| 2127 | 4.832E+04            | 4.124E-07 | 8.810E-05    |
| 2128 | 4.832E+04            | 3.923E-07 | 8.380E-05    |
| 2129 | 4.832E+04            | 3.732E-07 | 7.971E-05    |
| 2130 | 4.832E+04            | 3.550E-07 | 7.583E-05    |
| 2131 | 4.832E+04            | 3.377E-07 | 7.213E-05    |
| 2132 | 4.832E+04            | 3.212E-07 | 6.861E-05    |
| 2133 | 4.832E+04            | 3.055E-07 | 6.526E-05    |
| 2134 | 4.832E+04            | 2.906E-07 | 6.208E-05    |
| 2135 | 4.832E+04            | 2.765E-07 | 5.905E-05    |
| 2136 | 4.832E+04            | 2.630E-07 | 5.617E-05    |
| 2137 | 4.832E+04            | 2.502E-07 | 5.343E-05    |
| 2138 | 4.832E+04            | 2.380E-07 | 5.083E-05    |
| 2139 | 4.832E+04            | 2.264E-07 | 4.835E-05    |
| 2140 | 4.832E+04            | 2.153E-07 | 4.599E-05    |
| 2141 | 4.832E+04            | 2.048E-07 | 4.375E-05    |
| 2142 | 4.832E+04            | 1.948E-07 | 4.161E-05    |
| 2143 | 4.832E+04            | 1.853E-07 | 3.958E-05    |
| 2144 | 4.832E+04            | 1.763E-07 | 3.765E-05    |
| 2145 | 4.832E+04            | 1.677E-07 | 3.582E-05    |
| 2146 | 4.832E+04            | 1.595E-07 | 3.407E-05    |
| 2147 | 4.832E+04            | 1.517E-07 | 3.241E-05    |
| 2148 | 4.832E+04            | 1.443E-07 | 3.083E-05    |
| 2149 | 4.832E+04            | 1.373E-07 | 2.933E-05    |
| 2150 | 4.832E+04            | 1.306E-07 | 2.789E-05    |
| 2151 | 4.832E+04            | 1.242E-07 | 2.653E-05    |
| 2152 | 4.832E+04            | 1.182E-07 | 2.524E-05    |
| 2153 | 4.832E+04            | 1.124E-07 | 2.401E-05    |
| 2154 | 4.832E+04            | 1.069E-07 | 2.284E-05    |
| 2155 | 4.832E+04            | 1.017E-07 | 2.172E-05    |
| 2156 | 4.832E+04            | 9.675E-08 | 2.067E-05    |
| 2157 | 4.832E+04            | 9.203E-08 | 1.966E-05    |
| 2158 | 4.832E+04            | 8.754E-08 | 1.870E-05    |

continued

Table D-24. Emission Rate of Chlorobenzene from Parcel 2 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 4.832E+04            | 8.327E-08 | 1.779E-05    |
| 2160 | 4.832E+04            | 7.921E-08 | 1.692E-05    |
| 2161 | 4.832E+04            | 7.535E-08 | 1.609E-05    |
| 2162 | 4.832E+04            | 7.167E-08 | 1.531E-05    |
| 2163 | 4.832E+04            | 6.818E-08 | 1.456E-05    |
| 2164 | 4.832E+04            | 6.485E-08 | 1.385E-05    |
| 2165 | 4.832E+04            | 6.169E-08 | 1.318E-05    |
| 2166 | 4.832E+04            | 5.868E-08 | 1.253E-05    |
| 2167 | 4.832E+04            | 5.582E-08 | 1.192E-05    |
| 2168 | 4.832E+04            | 5.310E-08 | 1.134E-05    |
| 2169 | 4.832E+04            | 5.051E-08 | 1.079E-05    |
| 2170 | 4.832E+04            | 4.804E-08 | 1.026E-05    |
| 2171 | 4.832E+04            | 4.570E-08 | 9.761E-06    |
| 2172 | 4.832E+04            | 4.347E-08 | 9.285E-06    |
| 2173 | 4.832E+04            | 4.135E-08 | 8.833E-06    |
| 2174 | 4.832E+04            | 3.933E-08 | 8.402E-06    |
| 2175 | 4.832E+04            | 3.742E-08 | 7.992E-06    |
| 2176 | 4.832E+04            | 3.559E-08 | 7.602E-06    |
| 2177 | 4.832E+04            | 3.386E-08 | 7.231E-06    |
| 2178 | 4.832E+04            | 3.220E-08 | 6.879E-06    |
| 2179 | 4.832E+04            | 3.063E-08 | 6.543E-06    |
| 2180 | 4.832E+04            | 2.914E-08 | 6.224E-06    |
| 2181 | 4.832E+04            | 2.772E-08 | 5.921E-06    |
| 2182 | 4.832E+04            | 2.637E-08 | 5.632E-06    |
| 2183 | 4.832E+04            | 2.508E-08 | 5.357E-06    |
| 2184 | 4.832E+04            | 2.386E-08 | 5.096E-06    |
| 2185 | 4.832E+04            | 2.269E-08 | 4.847E-06    |
| 2186 | 4.832E+04            | 2.159E-08 | 4.611E-06    |
| 2187 | 4.832E+04            | 2.053E-08 | 4.386E-06    |
| 2188 | 4.832E+04            | 1.953E-08 | 4.172E-06    |
| 2189 | 4.832E+04            | 1.858E-08 | 3.969E-06    |
| 2190 | 4.832E+04            | 1.767E-08 | 3.775E-06    |
| 2191 | 4.832E+04            | 1.681E-08 | 3.591E-06    |
| 2192 | 4.832E+04            | 1.599E-08 | 3.416E-06    |
| 2193 | 4.832E+04            | 1.521E-08 | 3.249E-06    |
| 2194 | 4.832E+04            | 1.447E-08 | 3.091E-06    |
| 2195 | 4.832E+04            | 1.376E-08 | 2.940E-06    |
| 2196 | 4.832E+04            | 1.309E-08 | 2.797E-06    |
| 2197 | 4.832E+04            | 1.245E-08 | 2.660E-06    |
| 2198 | 4.832E+04            | 1.185E-08 | 2.531E-06    |
| 2199 | 4.832E+04            | 1.127E-08 | 2.407E-06    |
| 2200 | 4.832E+04            | 1.072E-08 | 2.290E-06    |
| 2201 | 4.832E+04            | 1.020E-08 | 2.178E-06    |
| 2202 | 4.832E+04            | 9.700E-09 | 2.072E-06    |
| 2203 | 4.832E+04            | 9.227E-09 | 1.971E-06    |

Table D-25. Emission Rate of Chloroethane from Parcel 2 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA2.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2000.00 ppmv
Methane : 62.0000 % volume
Carbon Dioxide : 38.0000 % volume
Air Pollutant : Chloroethane (HAP/VOC)
Molecular Wt = 64.52      Concentration = 0.160000 ppmV
=====
                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 48325 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
                          Model Results
=====
Year      Refuse In Place (Mg)      Chloroethane (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      4.832E+03      2.845E-05      1.060E-02
1976      9.665E+03      5.551E-05      2.068E-02
1977      1.450E+04      8.125E-05      3.028E-02
1978      1.933E+04      1.057E-04      3.940E-02
1979      2.416E+04      1.290E-04      4.808E-02
1980      2.899E+04      1.512E-04      5.633E-02
1981      3.383E+04      1.722E-04      6.419E-02
1982      3.866E+04      1.923E-04      7.166E-02
1983      4.349E+04      2.114E-04      7.876E-02
1984      4.832E+04      2.295E-04      8.552E-02
1985      4.832E+04      2.183E-04      8.135E-02
1986      4.832E+04      2.077E-04      7.738E-02
1987      4.832E+04      1.975E-04      7.361E-02
1988      4.832E+04      1.879E-04      7.002E-02
1989      4.832E+04      1.787E-04      6.660E-02
1990      4.832E+04      1.700E-04      6.336E-02
1991      4.832E+04      1.617E-04      6.027E-02
1992      4.832E+04      1.538E-04      5.733E-02
1993      4.832E+04      1.463E-04      5.453E-02
1994      4.832E+04      1.392E-04      5.187E-02
1995      4.832E+04      1.324E-04      4.934E-02
1996      4.832E+04      1.260E-04      4.693E-02
1997      4.832E+04      1.198E-04      4.465E-02
1998      4.832E+04      1.140E-04      4.247E-02
1999      4.832E+04      1.084E-04      4.040E-02
2000      4.832E+04      1.031E-04      3.843E-02
2001      4.832E+04      9.809E-05      3.655E-02
2002      4.832E+04      9.331E-05      3.477E-02
2003      4.832E+04      8.876E-05      3.307E-02
2004      4.832E+04      8.443E-05      3.146E-02
2005      4.832E+04      8.031E-05      2.993E-02
2006      4.832E+04      7.639E-05      2.847E-02
2007      4.832E+04      7.267E-05      2.708E-02
2008      4.832E+04      6.912E-05      2.576E-02
2009      4.832E+04      6.575E-05      2.450E-02
2010      4.832E+04      6.255E-05      2.331E-02
2011      4.832E+04      5.950E-05      2.217E-02
2012      4.832E+04      5.659E-05      2.109E-02
2013      4.832E+04      5.383E-05      2.006E-02
2014      4.832E+04      5.121E-05      1.908E-02
2015      4.832E+04      4.871E-05      1.815E-02
2016      4.832E+04      4.634E-05      1.727E-02
2017      4.832E+04      4.408E-05      1.642E-02
2018      4.832E+04      4.193E-05      1.562E-02
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continued

Table D-25. Emission Rate of Chloroethane from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 4.832E+04            | 3.988E-05 | 1.486E-02    |
| 2020 | 4.832E+04            | 3.794E-05 | 1.414E-02    |
| 2021 | 4.832E+04            | 3.609E-05 | 1.345E-02    |
| 2022 | 4.832E+04            | 3.433E-05 | 1.279E-02    |
| 2023 | 4.832E+04            | 3.265E-05 | 1.217E-02    |
| 2024 | 4.832E+04            | 3.106E-05 | 1.157E-02    |
| 2025 | 4.832E+04            | 2.954E-05 | 1.101E-02    |
| 2026 | 4.832E+04            | 2.810E-05 | 1.047E-02    |
| 2027 | 4.832E+04            | 2.673E-05 | 9.962E-03    |
| 2028 | 4.832E+04            | 2.543E-05 | 9.476E-03    |
| 2029 | 4.832E+04            | 2.419E-05 | 9.014E-03    |
| 2030 | 4.832E+04            | 2.301E-05 | 8.574E-03    |
| 2031 | 4.832E+04            | 2.189E-05 | 8.156E-03    |
| 2032 | 4.832E+04            | 2.082E-05 | 7.758E-03    |
| 2033 | 4.832E+04            | 1.980E-05 | 7.380E-03    |
| 2034 | 4.832E+04            | 1.884E-05 | 7.020E-03    |
| 2035 | 4.832E+04            | 1.792E-05 | 6.678E-03    |
| 2036 | 4.832E+04            | 1.705E-05 | 6.352E-03    |
| 2037 | 4.832E+04            | 1.621E-05 | 6.042E-03    |
| 2038 | 4.832E+04            | 1.542E-05 | 5.747E-03    |
| 2039 | 4.832E+04            | 1.467E-05 | 5.467E-03    |
| 2040 | 4.832E+04            | 1.396E-05 | 5.201E-03    |
| 2041 | 4.832E+04            | 1.328E-05 | 4.947E-03    |
| 2042 | 4.832E+04            | 1.263E-05 | 4.706E-03    |
| 2043 | 4.832E+04            | 1.201E-05 | 4.476E-03    |
| 2044 | 4.832E+04            | 1.143E-05 | 4.258E-03    |
| 2045 | 4.832E+04            | 1.087E-05 | 4.050E-03    |
| 2046 | 4.832E+04            | 1.034E-05 | 3.853E-03    |
| 2047 | 4.832E+04            | 9.835E-06 | 3.665E-03    |
| 2048 | 4.832E+04            | 9.355E-06 | 3.486E-03    |
| 2049 | 4.832E+04            | 8.899E-06 | 3.316E-03    |
| 2050 | 4.832E+04            | 8.465E-06 | 3.154E-03    |
| 2051 | 4.832E+04            | 8.052E-06 | 3.000E-03    |
| 2052 | 4.832E+04            | 7.659E-06 | 2.854E-03    |
| 2053 | 4.832E+04            | 7.286E-06 | 2.715E-03    |
| 2054 | 4.832E+04            | 6.930E-06 | 2.582E-03    |
| 2055 | 4.832E+04            | 6.592E-06 | 2.457E-03    |
| 2056 | 4.832E+04            | 6.271E-06 | 2.337E-03    |
| 2057 | 4.832E+04            | 5.965E-06 | 2.223E-03    |
| 2058 | 4.832E+04            | 5.674E-06 | 2.114E-03    |
| 2059 | 4.832E+04            | 5.397E-06 | 2.011E-03    |
| 2060 | 4.832E+04            | 5.134E-06 | 1.913E-03    |
| 2061 | 4.832E+04            | 4.884E-06 | 1.820E-03    |
| 2062 | 4.832E+04            | 4.646E-06 | 1.731E-03    |
| 2063 | 4.832E+04            | 4.419E-06 | 1.647E-03    |
| 2064 | 4.832E+04            | 4.203E-06 | 1.566E-03    |
| 2065 | 4.832E+04            | 3.998E-06 | 1.490E-03    |
| 2066 | 4.832E+04            | 3.803E-06 | 1.417E-03    |
| 2067 | 4.832E+04            | 3.618E-06 | 1.348E-03    |
| 2068 | 4.832E+04            | 3.441E-06 | 1.282E-03    |
| 2069 | 4.832E+04            | 3.274E-06 | 1.220E-03    |
| 2070 | 4.832E+04            | 3.114E-06 | 1.160E-03    |
| 2071 | 4.832E+04            | 2.962E-06 | 1.104E-03    |
| 2072 | 4.832E+04            | 2.818E-06 | 1.050E-03    |
| 2073 | 4.832E+04            | 2.680E-06 | 9.988E-04    |
| 2074 | 4.832E+04            | 2.550E-06 | 9.500E-04    |
| 2075 | 4.832E+04            | 2.425E-06 | 9.037E-04    |
| 2076 | 4.832E+04            | 2.307E-06 | 8.596E-04    |
| 2077 | 4.832E+04            | 2.194E-06 | 8.177E-04    |
| 2078 | 4.832E+04            | 2.087E-06 | 7.778E-04    |
| 2079 | 4.832E+04            | 1.986E-06 | 7.399E-04    |
| 2080 | 4.832E+04            | 1.889E-06 | 7.038E-04    |
| 2081 | 4.832E+04            | 1.797E-06 | 6.695E-04    |
| 2082 | 4.832E+04            | 1.709E-06 | 6.368E-04    |
| 2083 | 4.832E+04            | 1.626E-06 | 6.058E-04    |
| 2084 | 4.832E+04            | 1.546E-06 | 5.762E-04    |
| 2085 | 4.832E+04            | 1.471E-06 | 5.481E-04    |
| 2086 | 4.832E+04            | 1.399E-06 | 5.214E-04    |
| 2087 | 4.832E+04            | 1.331E-06 | 4.960E-04    |
| 2088 | 4.832E+04            | 1.266E-06 | 4.718E-04    |

continued

Table D-25. Emission Rate of Chloroethane from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 4.832E+04            | 1.204E-06 | 4.488E-04    |
| 2090 | 4.832E+04            | 1.146E-06 | 4.269E-04    |
| 2091 | 4.832E+04            | 1.090E-06 | 4.061E-04    |
| 2092 | 4.832E+04            | 1.037E-06 | 3.863E-04    |
| 2093 | 4.832E+04            | 9.860E-07 | 3.674E-04    |
| 2094 | 4.832E+04            | 9.379E-07 | 3.495E-04    |
| 2095 | 4.832E+04            | 8.922E-07 | 3.325E-04    |
| 2096 | 4.832E+04            | 8.487E-07 | 3.162E-04    |
| 2097 | 4.832E+04            | 8.073E-07 | 3.008E-04    |
| 2098 | 4.832E+04            | 7.679E-07 | 2.861E-04    |
| 2099 | 4.832E+04            | 7.304E-07 | 2.722E-04    |
| 2100 | 4.832E+04            | 6.948E-07 | 2.589E-04    |
| 2101 | 4.832E+04            | 6.609E-07 | 2.463E-04    |
| 2102 | 4.832E+04            | 6.287E-07 | 2.343E-04    |
| 2103 | 4.832E+04            | 5.980E-07 | 2.229E-04    |
| 2104 | 4.832E+04            | 5.689E-07 | 2.120E-04    |
| 2105 | 4.832E+04            | 5.411E-07 | 2.016E-04    |
| 2106 | 4.832E+04            | 5.147E-07 | 1.918E-04    |
| 2107 | 4.832E+04            | 4.896E-07 | 1.825E-04    |
| 2108 | 4.832E+04            | 4.658E-07 | 1.736E-04    |
| 2109 | 4.832E+04            | 4.430E-07 | 1.651E-04    |
| 2110 | 4.832E+04            | 4.214E-07 | 1.570E-04    |
| 2111 | 4.832E+04            | 4.009E-07 | 1.494E-04    |
| 2112 | 4.832E+04            | 3.813E-07 | 1.421E-04    |
| 2113 | 4.832E+04            | 3.627E-07 | 1.352E-04    |
| 2114 | 4.832E+04            | 3.450E-07 | 1.286E-04    |
| 2115 | 4.832E+04            | 3.282E-07 | 1.223E-04    |
| 2116 | 4.832E+04            | 3.122E-07 | 1.163E-04    |
| 2117 | 4.832E+04            | 2.970E-07 | 1.107E-04    |
| 2118 | 4.832E+04            | 2.825E-07 | 1.053E-04    |
| 2119 | 4.832E+04            | 2.687E-07 | 1.001E-04    |
| 2120 | 4.832E+04            | 2.556E-07 | 9.525E-05    |
| 2121 | 4.832E+04            | 2.431E-07 | 9.061E-05    |
| 2122 | 4.832E+04            | 2.313E-07 | 8.619E-05    |
| 2123 | 4.832E+04            | 2.200E-07 | 8.198E-05    |
| 2124 | 4.832E+04            | 2.093E-07 | 7.798E-05    |
| 2125 | 4.832E+04            | 1.991E-07 | 7.418E-05    |
| 2126 | 4.832E+04            | 1.894E-07 | 7.056E-05    |
| 2127 | 4.832E+04            | 1.801E-07 | 6.712E-05    |
| 2128 | 4.832E+04            | 1.713E-07 | 6.385E-05    |
| 2129 | 4.832E+04            | 1.630E-07 | 6.073E-05    |
| 2130 | 4.832E+04            | 1.550E-07 | 5.777E-05    |
| 2131 | 4.832E+04            | 1.475E-07 | 5.495E-05    |
| 2132 | 4.832E+04            | 1.403E-07 | 5.227E-05    |
| 2133 | 4.832E+04            | 1.334E-07 | 4.973E-05    |
| 2134 | 4.832E+04            | 1.269E-07 | 4.730E-05    |
| 2135 | 4.832E+04            | 1.207E-07 | 4.499E-05    |
| 2136 | 4.832E+04            | 1.149E-07 | 4.280E-05    |
| 2137 | 4.832E+04            | 1.093E-07 | 4.071E-05    |
| 2138 | 4.832E+04            | 1.039E-07 | 3.873E-05    |
| 2139 | 4.832E+04            | 9.886E-08 | 3.684E-05    |
| 2140 | 4.832E+04            | 9.403E-08 | 3.504E-05    |
| 2141 | 4.832E+04            | 8.945E-08 | 3.333E-05    |
| 2142 | 4.832E+04            | 8.509E-08 | 3.171E-05    |
| 2143 | 4.832E+04            | 8.094E-08 | 3.016E-05    |
| 2144 | 4.832E+04            | 7.699E-08 | 2.869E-05    |
| 2145 | 4.832E+04            | 7.323E-08 | 2.729E-05    |
| 2146 | 4.832E+04            | 6.966E-08 | 2.596E-05    |
| 2147 | 4.832E+04            | 6.626E-08 | 2.469E-05    |
| 2148 | 4.832E+04            | 6.303E-08 | 2.349E-05    |
| 2149 | 4.832E+04            | 5.996E-08 | 2.234E-05    |
| 2150 | 4.832E+04            | 5.703E-08 | 2.125E-05    |
| 2151 | 4.832E+04            | 5.425E-08 | 2.022E-05    |
| 2152 | 4.832E+04            | 5.161E-08 | 1.923E-05    |
| 2153 | 4.832E+04            | 4.909E-08 | 1.829E-05    |
| 2154 | 4.832E+04            | 4.670E-08 | 1.740E-05    |
| 2155 | 4.832E+04            | 4.442E-08 | 1.655E-05    |
| 2156 | 4.832E+04            | 4.225E-08 | 1.574E-05    |
| 2157 | 4.832E+04            | 4.019E-08 | 1.498E-05    |
| 2158 | 4.832E+04            | 3.823E-08 | 1.425E-05    |

continued

Table D-25. Emission Rate of Chloroethane from Parcel 2 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 4.832E+04            | 3.637E-08 | 1.355E-05    |
| 2160 | 4.832E+04            | 3.459E-08 | 1.289E-05    |
| 2161 | 4.832E+04            | 3.291E-08 | 1.226E-05    |
| 2162 | 4.832E+04            | 3.130E-08 | 1.166E-05    |
| 2163 | 4.832E+04            | 2.977E-08 | 1.110E-05    |
| 2164 | 4.832E+04            | 2.832E-08 | 1.055E-05    |
| 2165 | 4.832E+04            | 2.694E-08 | 1.004E-05    |
| 2166 | 4.832E+04            | 2.563E-08 | 9.550E-06    |
| 2167 | 4.832E+04            | 2.438E-08 | 9.084E-06    |
| 2168 | 4.832E+04            | 2.319E-08 | 8.641E-06    |
| 2169 | 4.832E+04            | 2.206E-08 | 8.220E-06    |
| 2170 | 4.832E+04            | 2.098E-08 | 7.819E-06    |
| 2171 | 4.832E+04            | 1.996E-08 | 7.437E-06    |
| 2172 | 4.832E+04            | 1.899E-08 | 7.075E-06    |
| 2173 | 4.832E+04            | 1.806E-08 | 6.730E-06    |
| 2174 | 4.832E+04            | 1.718E-08 | 6.401E-06    |
| 2175 | 4.832E+04            | 1.634E-08 | 6.089E-06    |
| 2176 | 4.832E+04            | 1.554E-08 | 5.792E-06    |
| 2177 | 4.832E+04            | 1.479E-08 | 5.510E-06    |
| 2178 | 4.832E+04            | 1.406E-08 | 5.241E-06    |
| 2179 | 4.832E+04            | 1.338E-08 | 4.985E-06    |
| 2180 | 4.832E+04            | 1.273E-08 | 4.742E-06    |
| 2181 | 4.832E+04            | 1.211E-08 | 4.511E-06    |
| 2182 | 4.832E+04            | 1.152E-08 | 4.291E-06    |
| 2183 | 4.832E+04            | 1.095E-08 | 4.082E-06    |
| 2184 | 4.832E+04            | 1.042E-08 | 3.883E-06    |
| 2185 | 4.832E+04            | 9.911E-09 | 3.693E-06    |
| 2186 | 4.832E+04            | 9.428E-09 | 3.513E-06    |
| 2187 | 4.832E+04            | 8.968E-09 | 3.342E-06    |
| 2188 | 4.832E+04            | 8.531E-09 | 3.179E-06    |
| 2189 | 4.832E+04            | 8.115E-09 | 3.024E-06    |
| 2190 | 4.832E+04            | 7.719E-09 | 2.876E-06    |
| 2191 | 4.832E+04            | 7.342E-09 | 2.736E-06    |
| 2192 | 4.832E+04            | 6.984E-09 | 2.603E-06    |
| 2193 | 4.832E+04            | 6.644E-09 | 2.476E-06    |
| 2194 | 4.832E+04            | 6.320E-09 | 2.355E-06    |
| 2195 | 4.832E+04            | 6.011E-09 | 2.240E-06    |
| 2196 | 4.832E+04            | 5.718E-09 | 2.131E-06    |
| 2197 | 4.832E+04            | 5.439E-09 | 2.027E-06    |
| 2198 | 4.832E+04            | 5.174E-09 | 1.928E-06    |
| 2199 | 4.832E+04            | 4.922E-09 | 1.834E-06    |
| 2200 | 4.832E+04            | 4.682E-09 | 1.745E-06    |
| 2201 | 4.832E+04            | 4.453E-09 | 1.659E-06    |
| 2202 | 4.832E+04            | 4.236E-09 | 1.579E-06    |
| 2203 | 4.832E+04            | 4.030E-09 | 1.502E-06    |

Table D-26. Emission Rate of 1,4-Dichlorobenzene from Parcel 2 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA2.PRM

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=====
Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2000.00 ppmv
Methane : 62.0000 % volume
Carbon Dioxide : 38.0000 % volume
Air Pollutant : Dichlorobenzene (VOC/HAP for 1,4 isomer)
Molecular Wt = 147.00      Concentration =      0.290000 ppmV
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 48325 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
Model Results
=====
Dichlorobenzene (VOC/HAP for 1,4 isomer) Emission Re
Year      Refuse In Place (Mg)      (Mg/yr)      (Cubic m/yr)
=====
1975      4.832E+03      1.175E-04      1.921E-02
1976      9.665E+03      2.292E-04      3.749E-02
1977      1.450E+04      3.355E-04      5.487E-02
1978      1.933E+04      4.366E-04      7.141E-02
1979      2.416E+04      5.328E-04      8.714E-02
1980      2.899E+04      6.243E-04      1.021E-01
1981      3.383E+04      7.113E-04      1.163E-01
1982      3.866E+04      7.941E-04      1.299E-01
1983      4.349E+04      8.728E-04      1.428E-01
1984      4.832E+04      9.477E-04      1.550E-01
1985      4.832E+04      9.015E-04      1.474E-01
1986      4.832E+04      8.575E-04      1.403E-01
1987      4.832E+04      8.157E-04      1.334E-01
1988      4.832E+04      7.759E-04      1.269E-01
1989      4.832E+04      7.381E-04      1.207E-01
1990      4.832E+04      7.021E-04      1.148E-01
1991      4.832E+04      6.679E-04      1.092E-01
1992      4.832E+04      6.353E-04      1.039E-01
1993      4.832E+04      6.043E-04      9.884E-02
1994      4.832E+04      5.748E-04      9.402E-02
1995      4.832E+04      5.468E-04      8.943E-02
1996      4.832E+04      5.201E-04      8.507E-02
1997      4.832E+04      4.948E-04      8.092E-02
1998      4.832E+04      4.706E-04      7.697E-02
1999      4.832E+04      4.477E-04      7.322E-02
2000      4.832E+04      4.258E-04      6.965E-02
2001      4.832E+04      4.051E-04      6.625E-02
2002      4.832E+04      3.853E-04      6.302E-02
2003      4.832E+04      3.665E-04      5.995E-02
2004      4.832E+04      3.486E-04      5.702E-02
2005      4.832E+04      3.316E-04      5.424E-02
2006      4.832E+04      3.155E-04      5.160E-02
2007      4.832E+04      3.001E-04      4.908E-02
2008      4.832E+04      2.855E-04      4.669E-02
2009      4.832E+04      2.715E-04      4.441E-02
2010      4.832E+04      2.583E-04      4.224E-02
2011      4.832E+04      2.457E-04      4.018E-02
2012      4.832E+04      2.337E-04      3.822E-02
2013      4.832E+04      2.223E-04      3.636E-02
2014      4.832E+04      2.115E-04      3.459E-02
2015      4.832E+04      2.012E-04      3.290E-02
2016      4.832E+04      1.913E-04      3.130E-02
2017      4.832E+04      1.820E-04      2.977E-02
2018      4.832E+04      1.731E-04      2.832E-02
=====

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continued

Table D-26. Emission Rate of 1,4-Dichlorobenzene from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 4.832E+04            | 1.647E-04 | 2.694E-02    |
| 2020 | 4.832E+04            | 1.567E-04 | 2.562E-02    |
| 2021 | 4.832E+04            | 1.490E-04 | 2.437E-02    |
| 2022 | 4.832E+04            | 1.418E-04 | 2.318E-02    |
| 2023 | 4.832E+04            | 1.348E-04 | 2.205E-02    |
| 2024 | 4.832E+04            | 1.283E-04 | 2.098E-02    |
| 2025 | 4.832E+04            | 1.220E-04 | 1.995E-02    |
| 2026 | 4.832E+04            | 1.161E-04 | 1.898E-02    |
| 2027 | 4.832E+04            | 1.104E-04 | 1.806E-02    |
| 2028 | 4.832E+04            | 1.050E-04 | 1.718E-02    |
| 2029 | 4.832E+04            | 9.989E-05 | 1.634E-02    |
| 2030 | 4.832E+04            | 9.502E-05 | 1.554E-02    |
| 2031 | 4.832E+04            | 9.038E-05 | 1.478E-02    |
| 2032 | 4.832E+04            | 8.598E-05 | 1.406E-02    |
| 2033 | 4.832E+04            | 8.178E-05 | 1.338E-02    |
| 2034 | 4.832E+04            | 7.779E-05 | 1.272E-02    |
| 2035 | 4.832E+04            | 7.400E-05 | 1.210E-02    |
| 2036 | 4.832E+04            | 7.039E-05 | 1.151E-02    |
| 2037 | 4.832E+04            | 6.696E-05 | 1.095E-02    |
| 2038 | 4.832E+04            | 6.369E-05 | 1.042E-02    |
| 2039 | 4.832E+04            | 6.059E-05 | 9.909E-03    |
| 2040 | 4.832E+04            | 5.763E-05 | 9.426E-03    |
| 2041 | 4.832E+04            | 5.482E-05 | 8.966E-03    |
| 2042 | 4.832E+04            | 5.215E-05 | 8.529E-03    |
| 2043 | 4.832E+04            | 4.960E-05 | 8.113E-03    |
| 2044 | 4.832E+04            | 4.718E-05 | 7.717E-03    |
| 2045 | 4.832E+04            | 4.488E-05 | 7.341E-03    |
| 2046 | 4.832E+04            | 4.269E-05 | 6.983E-03    |
| 2047 | 4.832E+04            | 4.061E-05 | 6.642E-03    |
| 2048 | 4.832E+04            | 3.863E-05 | 6.318E-03    |
| 2049 | 4.832E+04            | 3.675E-05 | 6.010E-03    |
| 2050 | 4.832E+04            | 3.496E-05 | 5.717E-03    |
| 2051 | 4.832E+04            | 3.325E-05 | 5.438E-03    |
| 2052 | 4.832E+04            | 3.163E-05 | 5.173E-03    |
| 2053 | 4.832E+04            | 3.009E-05 | 4.921E-03    |
| 2054 | 4.832E+04            | 2.862E-05 | 4.681E-03    |
| 2055 | 4.832E+04            | 2.722E-05 | 4.452E-03    |
| 2056 | 4.832E+04            | 2.590E-05 | 4.235E-03    |
| 2057 | 4.832E+04            | 2.463E-05 | 4.029E-03    |
| 2058 | 4.832E+04            | 2.343E-05 | 3.832E-03    |
| 2059 | 4.832E+04            | 2.229E-05 | 3.645E-03    |
| 2060 | 4.832E+04            | 2.120E-05 | 3.468E-03    |
| 2061 | 4.832E+04            | 2.017E-05 | 3.298E-03    |
| 2062 | 4.832E+04            | 1.918E-05 | 3.138E-03    |
| 2063 | 4.832E+04            | 1.825E-05 | 2.985E-03    |
| 2064 | 4.832E+04            | 1.736E-05 | 2.839E-03    |
| 2065 | 4.832E+04            | 1.651E-05 | 2.701E-03    |
| 2066 | 4.832E+04            | 1.571E-05 | 2.569E-03    |
| 2067 | 4.832E+04            | 1.494E-05 | 2.444E-03    |
| 2068 | 4.832E+04            | 1.421E-05 | 2.324E-03    |
| 2069 | 4.832E+04            | 1.352E-05 | 2.211E-03    |
| 2070 | 4.832E+04            | 1.286E-05 | 2.103E-03    |
| 2071 | 4.832E+04            | 1.223E-05 | 2.001E-03    |
| 2072 | 4.832E+04            | 1.164E-05 | 1.903E-03    |
| 2073 | 4.832E+04            | 1.107E-05 | 1.810E-03    |
| 2074 | 4.832E+04            | 1.053E-05 | 1.722E-03    |
| 2075 | 4.832E+04            | 1.001E-05 | 1.638E-03    |
| 2076 | 4.832E+04            | 9.526E-06 | 1.558E-03    |
| 2077 | 4.832E+04            | 9.062E-06 | 1.482E-03    |
| 2078 | 4.832E+04            | 8.620E-06 | 1.410E-03    |
| 2079 | 4.832E+04            | 8.199E-06 | 1.341E-03    |
| 2080 | 4.832E+04            | 7.800E-06 | 1.276E-03    |
| 2081 | 4.832E+04            | 7.419E-06 | 1.213E-03    |
| 2082 | 4.832E+04            | 7.057E-06 | 1.154E-03    |
| 2083 | 4.832E+04            | 6.713E-06 | 1.098E-03    |
| 2084 | 4.832E+04            | 6.386E-06 | 1.044E-03    |
| 2085 | 4.832E+04            | 6.074E-06 | 9.935E-04    |
| 2086 | 4.832E+04            | 5.778E-06 | 9.450E-04    |
| 2087 | 4.832E+04            | 5.496E-06 | 8.989E-04    |
| 2088 | 4.832E+04            | 5.228E-06 | 8.551E-04    |

continued



Table D-26. Emission Rate of 1,4-Dichlorobenzene from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 4.832E+04            | 4.973E-06 | 8.134E-04    |
| 2090 | 4.832E+04            | 4.731E-06 | 7.737E-04    |
| 2091 | 4.832E+04            | 4.500E-06 | 7.360E-04    |
| 2092 | 4.832E+04            | 4.280E-06 | 7.001E-04    |
| 2093 | 4.832E+04            | 4.072E-06 | 6.660E-04    |
| 2094 | 4.832E+04            | 3.873E-06 | 6.335E-04    |
| 2095 | 4.832E+04            | 3.684E-06 | 6.026E-04    |
| 2096 | 4.832E+04            | 3.505E-06 | 5.732E-04    |
| 2097 | 4.832E+04            | 3.334E-06 | 5.452E-04    |
| 2098 | 4.832E+04            | 3.171E-06 | 5.186E-04    |
| 2099 | 4.832E+04            | 3.016E-06 | 4.933E-04    |
| 2100 | 4.832E+04            | 2.869E-06 | 4.693E-04    |
| 2101 | 4.832E+04            | 2.729E-06 | 4.464E-04    |
| 2102 | 4.832E+04            | 2.596E-06 | 4.246E-04    |
| 2103 | 4.832E+04            | 2.470E-06 | 4.039E-04    |
| 2104 | 4.832E+04            | 2.349E-06 | 3.842E-04    |
| 2105 | 4.832E+04            | 2.235E-06 | 3.655E-04    |
| 2106 | 4.832E+04            | 2.126E-06 | 3.477E-04    |
| 2107 | 4.832E+04            | 2.022E-06 | 3.307E-04    |
| 2108 | 4.832E+04            | 1.923E-06 | 3.146E-04    |
| 2109 | 4.832E+04            | 1.830E-06 | 2.992E-04    |
| 2110 | 4.832E+04            | 1.740E-06 | 2.846E-04    |
| 2111 | 4.832E+04            | 1.655E-06 | 2.708E-04    |
| 2112 | 4.832E+04            | 1.575E-06 | 2.576E-04    |
| 2113 | 4.832E+04            | 1.498E-06 | 2.450E-04    |
| 2114 | 4.832E+04            | 1.425E-06 | 2.330E-04    |
| 2115 | 4.832E+04            | 1.355E-06 | 2.217E-04    |
| 2116 | 4.832E+04            | 1.289E-06 | 2.109E-04    |
| 2117 | 4.832E+04            | 1.226E-06 | 2.006E-04    |
| 2118 | 4.832E+04            | 1.167E-06 | 1.908E-04    |
| 2119 | 4.832E+04            | 1.110E-06 | 1.815E-04    |
| 2120 | 4.832E+04            | 1.056E-06 | 1.726E-04    |
| 2121 | 4.832E+04            | 1.004E-06 | 1.642E-04    |
| 2122 | 4.832E+04            | 9.551E-07 | 1.562E-04    |
| 2123 | 4.832E+04            | 9.085E-07 | 1.486E-04    |
| 2124 | 4.832E+04            | 8.642E-07 | 1.413E-04    |
| 2125 | 4.832E+04            | 8.221E-07 | 1.345E-04    |
| 2126 | 4.832E+04            | 7.820E-07 | 1.279E-04    |
| 2127 | 4.832E+04            | 7.438E-07 | 1.217E-04    |
| 2128 | 4.832E+04            | 7.076E-07 | 1.157E-04    |
| 2129 | 4.832E+04            | 6.731E-07 | 1.101E-04    |
| 2130 | 4.832E+04            | 6.402E-07 | 1.047E-04    |
| 2131 | 4.832E+04            | 6.090E-07 | 9.961E-05    |
| 2132 | 4.832E+04            | 5.793E-07 | 9.475E-05    |
| 2133 | 4.832E+04            | 5.510E-07 | 9.013E-05    |
| 2134 | 4.832E+04            | 5.242E-07 | 8.573E-05    |
| 2135 | 4.832E+04            | 4.986E-07 | 8.155E-05    |
| 2136 | 4.832E+04            | 4.743E-07 | 7.757E-05    |
| 2137 | 4.832E+04            | 4.512E-07 | 7.379E-05    |
| 2138 | 4.832E+04            | 4.292E-07 | 7.019E-05    |
| 2139 | 4.832E+04            | 4.082E-07 | 6.677E-05    |
| 2140 | 4.832E+04            | 3.883E-07 | 6.351E-05    |
| 2141 | 4.832E+04            | 3.694E-07 | 6.041E-05    |
| 2142 | 4.832E+04            | 3.514E-07 | 5.747E-05    |
| 2143 | 4.832E+04            | 3.342E-07 | 5.466E-05    |
| 2144 | 4.832E+04            | 3.179E-07 | 5.200E-05    |
| 2145 | 4.832E+04            | 3.024E-07 | 4.946E-05    |
| 2146 | 4.832E+04            | 2.877E-07 | 4.705E-05    |
| 2147 | 4.832E+04            | 2.736E-07 | 4.476E-05    |
| 2148 | 4.832E+04            | 2.603E-07 | 4.257E-05    |
| 2149 | 4.832E+04            | 2.476E-07 | 4.050E-05    |
| 2150 | 4.832E+04            | 2.355E-07 | 3.852E-05    |
| 2151 | 4.832E+04            | 2.240E-07 | 3.664E-05    |
| 2152 | 4.832E+04            | 2.131E-07 | 3.486E-05    |
| 2153 | 4.832E+04            | 2.027E-07 | 3.316E-05    |
| 2154 | 4.832E+04            | 1.928E-07 | 3.154E-05    |
| 2155 | 4.832E+04            | 1.834E-07 | 3.000E-05    |
| 2156 | 4.832E+04            | 1.745E-07 | 2.854E-05    |
| 2157 | 4.832E+04            | 1.660E-07 | 2.715E-05    |
| 2158 | 4.832E+04            | 1.579E-07 | 2.582E-05    |

continued

Table D-26. Emission Rate of 1,4-Dichlorobenzene from Parcel 2 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 4.832E+04            | 1.502E-07 | 2.456E-05    |
| 2160 | 4.832E+04            | 1.429E-07 | 2.336E-05    |
| 2161 | 4.832E+04            | 1.359E-07 | 2.223E-05    |
| 2162 | 4.832E+04            | 1.293E-07 | 2.114E-05    |
| 2163 | 4.832E+04            | 1.230E-07 | 2.011E-05    |
| 2164 | 4.832E+04            | 1.170E-07 | 1.913E-05    |
| 2165 | 4.832E+04            | 1.113E-07 | 1.820E-05    |
| 2166 | 4.832E+04            | 1.058E-07 | 1.731E-05    |
| 2167 | 4.832E+04            | 1.007E-07 | 1.646E-05    |
| 2168 | 4.832E+04            | 9.576E-08 | 1.566E-05    |
| 2169 | 4.832E+04            | 9.109E-08 | 1.490E-05    |
| 2170 | 4.832E+04            | 8.665E-08 | 1.417E-05    |
| 2171 | 4.832E+04            | 8.242E-08 | 1.348E-05    |
| 2172 | 4.832E+04            | 7.840E-08 | 1.282E-05    |
| 2173 | 4.832E+04            | 7.458E-08 | 1.220E-05    |
| 2174 | 4.832E+04            | 7.094E-08 | 1.160E-05    |
| 2175 | 4.832E+04            | 6.748E-08 | 1.104E-05    |
| 2176 | 4.832E+04            | 6.419E-08 | 1.050E-05    |
| 2177 | 4.832E+04            | 6.106E-08 | 9.986E-06    |
| 2178 | 4.832E+04            | 5.808E-08 | 9.499E-06    |
| 2179 | 4.832E+04            | 5.525E-08 | 9.036E-06    |
| 2180 | 4.832E+04            | 5.255E-08 | 8.595E-06    |
| 2181 | 4.832E+04            | 4.999E-08 | 8.176E-06    |
| 2182 | 4.832E+04            | 4.755E-08 | 7.777E-06    |
| 2183 | 4.832E+04            | 4.523E-08 | 7.398E-06    |
| 2184 | 4.832E+04            | 4.303E-08 | 7.037E-06    |
| 2185 | 4.832E+04            | 4.093E-08 | 6.694E-06    |
| 2186 | 4.832E+04            | 3.893E-08 | 6.368E-06    |
| 2187 | 4.832E+04            | 3.703E-08 | 6.057E-06    |
| 2188 | 4.832E+04            | 3.523E-08 | 5.762E-06    |
| 2189 | 4.832E+04            | 3.351E-08 | 5.481E-06    |
| 2190 | 4.832E+04            | 3.188E-08 | 5.213E-06    |
| 2191 | 4.832E+04            | 3.032E-08 | 4.959E-06    |
| 2192 | 4.832E+04            | 2.884E-08 | 4.717E-06    |
| 2193 | 4.832E+04            | 2.744E-08 | 4.487E-06    |
| 2194 | 4.832E+04            | 2.610E-08 | 4.268E-06    |
| 2195 | 4.832E+04            | 2.482E-08 | 4.060E-06    |
| 2196 | 4.832E+04            | 2.361E-08 | 3.862E-06    |
| 2197 | 4.832E+04            | 2.246E-08 | 3.674E-06    |
| 2198 | 4.832E+04            | 2.137E-08 | 3.495E-06    |
| 2199 | 4.832E+04            | 2.032E-08 | 3.324E-06    |
| 2200 | 4.832E+04            | 1.933E-08 | 3.162E-06    |
| 2201 | 4.832E+04            | 1.839E-08 | 3.008E-06    |
| 2202 | 4.832E+04            | 1.749E-08 | 2.861E-06    |
| 2203 | 4.832E+04            | 1.664E-08 | 2.722E-06    |

Table D-27. Emission Rate of Toluene from Parcel 2 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA2.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2000.00 ppmv
Methane : 62.0000 % volume
Carbon Dioxide : 38.0000 % volume
Air Pollutant : Toluene (HAP/VOC)
Molecular Wt = 92.14      Concentration = 0.550000 ppmV
=====
                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 48325 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
                          Model Results
=====
Year      Refuse In Place (Mg)      Toluene (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      4.832E+03      1.396E-04      3.644E-02
1976      9.665E+03      2.725E-04      7.110E-02
1977      1.450E+04      3.988E-04      1.041E-01
1978      1.933E+04      5.190E-04      1.354E-01
1979      2.416E+04      6.334E-04      1.653E-01
1980      2.899E+04      7.421E-04      1.936E-01
1981      3.383E+04      8.456E-04      2.206E-01
1982      3.866E+04      9.440E-04      2.463E-01
1983      4.349E+04      1.038E-03      2.707E-01
1984      4.832E+04      1.127E-03      2.940E-01
1985      4.832E+04      1.072E-03      2.796E-01
1986      4.832E+04      1.019E-03      2.660E-01
1987      4.832E+04      9.697E-04      2.530E-01
1988      4.832E+04      9.224E-04      2.407E-01
1989      4.832E+04      8.774E-04      2.289E-01
1990      4.832E+04      8.346E-04      2.178E-01
1991      4.832E+04      7.939E-04      2.072E-01
1992      4.832E+04      7.552E-04      1.971E-01
1993      4.832E+04      7.184E-04      1.874E-01
1994      4.832E+04      6.833E-04      1.783E-01
1995      4.832E+04      6.500E-04      1.696E-01
1996      4.832E+04      6.183E-04      1.613E-01
1997      4.832E+04      5.881E-04      1.535E-01
1998      4.832E+04      5.595E-04      1.460E-01
1999      4.832E+04      5.322E-04      1.389E-01
2000      4.832E+04      5.062E-04      1.321E-01
2001      4.832E+04      4.815E-04      1.257E-01
2002      4.832E+04      4.581E-04      1.195E-01
2003      4.832E+04      4.357E-04      1.137E-01
2004      4.832E+04      4.145E-04      1.081E-01
2005      4.832E+04      3.942E-04      1.029E-01
2006      4.832E+04      3.750E-04      9.786E-02
2007      4.832E+04      3.567E-04      9.308E-02
2008      4.832E+04      3.393E-04      8.854E-02
2009      4.832E+04      3.228E-04      8.423E-02
2010      4.832E+04      3.070E-04      8.012E-02
2011      4.832E+04      2.921E-04      7.621E-02
2012      4.832E+04      2.778E-04      7.249E-02
2013      4.832E+04      2.643E-04      6.896E-02
2014      4.832E+04      2.514E-04      6.560E-02
2015      4.832E+04      2.391E-04      6.240E-02
2016      4.832E+04      2.275E-04      5.935E-02
2017      4.832E+04      2.164E-04      5.646E-02
2018      4.832E+04      2.058E-04      5.370E-02
=====

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continued

Table D-27. Emission Rate of Toluene from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 4.832E+04            | 1.958E-04 | 5.109E-02    |
| 2020 | 4.832E+04            | 1.862E-04 | 4.859E-02    |
| 2021 | 4.832E+04            | 1.771E-04 | 4.622E-02    |
| 2022 | 4.832E+04            | 1.685E-04 | 4.397E-02    |
| 2023 | 4.832E+04            | 1.603E-04 | 4.183E-02    |
| 2024 | 4.832E+04            | 1.525E-04 | 3.979E-02    |
| 2025 | 4.832E+04            | 1.450E-04 | 3.785E-02    |
| 2026 | 4.832E+04            | 1.380E-04 | 3.600E-02    |
| 2027 | 4.832E+04            | 1.312E-04 | 3.424E-02    |
| 2028 | 4.832E+04            | 1.248E-04 | 3.257E-02    |
| 2029 | 4.832E+04            | 1.187E-04 | 3.098E-02    |
| 2030 | 4.832E+04            | 1.130E-04 | 2.947E-02    |
| 2031 | 4.832E+04            | 1.074E-04 | 2.804E-02    |
| 2032 | 4.832E+04            | 1.022E-04 | 2.667E-02    |
| 2033 | 4.832E+04            | 9.722E-05 | 2.537E-02    |
| 2034 | 4.832E+04            | 9.248E-05 | 2.413E-02    |
| 2035 | 4.832E+04            | 8.797E-05 | 2.295E-02    |
| 2036 | 4.832E+04            | 8.368E-05 | 2.183E-02    |
| 2037 | 4.832E+04            | 7.960E-05 | 2.077E-02    |
| 2038 | 4.832E+04            | 7.572E-05 | 1.976E-02    |
| 2039 | 4.832E+04            | 7.202E-05 | 1.879E-02    |
| 2040 | 4.832E+04            | 6.851E-05 | 1.788E-02    |
| 2041 | 4.832E+04            | 6.517E-05 | 1.700E-02    |
| 2042 | 4.832E+04            | 6.199E-05 | 1.618E-02    |
| 2043 | 4.832E+04            | 5.897E-05 | 1.539E-02    |
| 2044 | 4.832E+04            | 5.609E-05 | 1.464E-02    |
| 2045 | 4.832E+04            | 5.336E-05 | 1.392E-02    |
| 2046 | 4.832E+04            | 5.075E-05 | 1.324E-02    |
| 2047 | 4.832E+04            | 4.828E-05 | 1.260E-02    |
| 2048 | 4.832E+04            | 4.592E-05 | 1.198E-02    |
| 2049 | 4.832E+04            | 4.368E-05 | 1.140E-02    |
| 2050 | 4.832E+04            | 4.155E-05 | 1.084E-02    |
| 2051 | 4.832E+04            | 3.953E-05 | 1.031E-02    |
| 2052 | 4.832E+04            | 3.760E-05 | 9.811E-03    |
| 2053 | 4.832E+04            | 3.577E-05 | 9.332E-03    |
| 2054 | 4.832E+04            | 3.402E-05 | 8.877E-03    |
| 2055 | 4.832E+04            | 3.236E-05 | 8.444E-03    |
| 2056 | 4.832E+04            | 3.078E-05 | 8.033E-03    |
| 2057 | 4.832E+04            | 2.928E-05 | 7.641E-03    |
| 2058 | 4.832E+04            | 2.785E-05 | 7.268E-03    |
| 2059 | 4.832E+04            | 2.650E-05 | 6.914E-03    |
| 2060 | 4.832E+04            | 2.520E-05 | 6.576E-03    |
| 2061 | 4.832E+04            | 2.397E-05 | 6.256E-03    |
| 2062 | 4.832E+04            | 2.281E-05 | 5.951E-03    |
| 2063 | 4.832E+04            | 2.169E-05 | 5.660E-03    |
| 2064 | 4.832E+04            | 2.063E-05 | 5.384E-03    |
| 2065 | 4.832E+04            | 1.963E-05 | 5.122E-03    |
| 2066 | 4.832E+04            | 1.867E-05 | 4.872E-03    |
| 2067 | 4.832E+04            | 1.776E-05 | 4.634E-03    |
| 2068 | 4.832E+04            | 1.689E-05 | 4.408E-03    |
| 2069 | 4.832E+04            | 1.607E-05 | 4.193E-03    |
| 2070 | 4.832E+04            | 1.529E-05 | 3.989E-03    |
| 2071 | 4.832E+04            | 1.454E-05 | 3.794E-03    |
| 2072 | 4.832E+04            | 1.383E-05 | 3.609E-03    |
| 2073 | 4.832E+04            | 1.316E-05 | 3.433E-03    |
| 2074 | 4.832E+04            | 1.252E-05 | 3.266E-03    |
| 2075 | 4.832E+04            | 1.191E-05 | 3.107E-03    |
| 2076 | 4.832E+04            | 1.132E-05 | 2.955E-03    |
| 2077 | 4.832E+04            | 1.077E-05 | 2.811E-03    |
| 2078 | 4.832E+04            | 1.025E-05 | 2.674E-03    |
| 2079 | 4.832E+04            | 9.747E-06 | 2.543E-03    |
| 2080 | 4.832E+04            | 9.272E-06 | 2.419E-03    |
| 2081 | 4.832E+04            | 8.820E-06 | 2.301E-03    |
| 2082 | 4.832E+04            | 8.390E-06 | 2.189E-03    |
| 2083 | 4.832E+04            | 7.980E-06 | 2.082E-03    |
| 2084 | 4.832E+04            | 7.591E-06 | 1.981E-03    |
| 2085 | 4.832E+04            | 7.221E-06 | 1.884E-03    |
| 2086 | 4.832E+04            | 6.869E-06 | 1.792E-03    |
| 2087 | 4.832E+04            | 6.534E-06 | 1.705E-03    |
| 2088 | 4.832E+04            | 6.215E-06 | 1.622E-03    |

continued

Table D-27. Emission Rate of Toluene from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 4.832E+04            | 5.912E-06 | 1.543E-03    |
| 2090 | 4.832E+04            | 5.624E-06 | 1.467E-03    |
| 2091 | 4.832E+04            | 5.349E-06 | 1.396E-03    |
| 2092 | 4.832E+04            | 5.088E-06 | 1.328E-03    |
| 2093 | 4.832E+04            | 4.840E-06 | 1.263E-03    |
| 2094 | 4.832E+04            | 4.604E-06 | 1.201E-03    |
| 2095 | 4.832E+04            | 4.380E-06 | 1.143E-03    |
| 2096 | 4.832E+04            | 4.166E-06 | 1.087E-03    |
| 2097 | 4.832E+04            | 3.963E-06 | 1.034E-03    |
| 2098 | 4.832E+04            | 3.770E-06 | 9.836E-04    |
| 2099 | 4.832E+04            | 3.586E-06 | 9.357E-04    |
| 2100 | 4.832E+04            | 3.411E-06 | 8.900E-04    |
| 2101 | 4.832E+04            | 3.245E-06 | 8.466E-04    |
| 2102 | 4.832E+04            | 3.086E-06 | 8.053E-04    |
| 2103 | 4.832E+04            | 2.936E-06 | 7.661E-04    |
| 2104 | 4.832E+04            | 2.793E-06 | 7.287E-04    |
| 2105 | 4.832E+04            | 2.656E-06 | 6.932E-04    |
| 2106 | 4.832E+04            | 2.527E-06 | 6.594E-04    |
| 2107 | 4.832E+04            | 2.404E-06 | 6.272E-04    |
| 2108 | 4.832E+04            | 2.286E-06 | 5.966E-04    |
| 2109 | 4.832E+04            | 2.175E-06 | 5.675E-04    |
| 2110 | 4.832E+04            | 2.069E-06 | 5.398E-04    |
| 2111 | 4.832E+04            | 1.968E-06 | 5.135E-04    |
| 2112 | 4.832E+04            | 1.872E-06 | 4.885E-04    |
| 2113 | 4.832E+04            | 1.781E-06 | 4.646E-04    |
| 2114 | 4.832E+04            | 1.694E-06 | 4.420E-04    |
| 2115 | 4.832E+04            | 1.611E-06 | 4.204E-04    |
| 2116 | 4.832E+04            | 1.533E-06 | 3.999E-04    |
| 2117 | 4.832E+04            | 1.458E-06 | 3.804E-04    |
| 2118 | 4.832E+04            | 1.387E-06 | 3.619E-04    |
| 2119 | 4.832E+04            | 1.319E-06 | 3.442E-04    |
| 2120 | 4.832E+04            | 1.255E-06 | 3.274E-04    |
| 2121 | 4.832E+04            | 1.194E-06 | 3.115E-04    |
| 2122 | 4.832E+04            | 1.135E-06 | 2.963E-04    |
| 2123 | 4.832E+04            | 1.080E-06 | 2.818E-04    |
| 2124 | 4.832E+04            | 1.027E-06 | 2.681E-04    |
| 2125 | 4.832E+04            | 9.772E-07 | 2.550E-04    |
| 2126 | 4.832E+04            | 9.296E-07 | 2.426E-04    |
| 2127 | 4.832E+04            | 8.842E-07 | 2.307E-04    |
| 2128 | 4.832E+04            | 8.411E-07 | 2.195E-04    |
| 2129 | 4.832E+04            | 8.001E-07 | 2.088E-04    |
| 2130 | 4.832E+04            | 7.611E-07 | 1.986E-04    |
| 2131 | 4.832E+04            | 7.240E-07 | 1.889E-04    |
| 2132 | 4.832E+04            | 6.887E-07 | 1.797E-04    |
| 2133 | 4.832E+04            | 6.551E-07 | 1.709E-04    |
| 2134 | 4.832E+04            | 6.231E-07 | 1.626E-04    |
| 2135 | 4.832E+04            | 5.927E-07 | 1.547E-04    |
| 2136 | 4.832E+04            | 5.638E-07 | 1.471E-04    |
| 2137 | 4.832E+04            | 5.363E-07 | 1.399E-04    |
| 2138 | 4.832E+04            | 5.102E-07 | 1.331E-04    |
| 2139 | 4.832E+04            | 4.853E-07 | 1.266E-04    |
| 2140 | 4.832E+04            | 4.616E-07 | 1.205E-04    |
| 2141 | 4.832E+04            | 4.391E-07 | 1.146E-04    |
| 2142 | 4.832E+04            | 4.177E-07 | 1.090E-04    |
| 2143 | 4.832E+04            | 3.973E-07 | 1.037E-04    |
| 2144 | 4.832E+04            | 3.779E-07 | 9.862E-05    |
| 2145 | 4.832E+04            | 3.595E-07 | 9.381E-05    |
| 2146 | 4.832E+04            | 3.420E-07 | 8.923E-05    |
| 2147 | 4.832E+04            | 3.253E-07 | 8.488E-05    |
| 2148 | 4.832E+04            | 3.094E-07 | 8.074E-05    |
| 2149 | 4.832E+04            | 2.943E-07 | 7.680E-05    |
| 2150 | 4.832E+04            | 2.800E-07 | 7.306E-05    |
| 2151 | 4.832E+04            | 2.663E-07 | 6.950E-05    |
| 2152 | 4.832E+04            | 2.533E-07 | 6.611E-05    |
| 2153 | 4.832E+04            | 2.410E-07 | 6.288E-05    |
| 2154 | 4.832E+04            | 2.292E-07 | 5.981E-05    |
| 2155 | 4.832E+04            | 2.181E-07 | 5.690E-05    |
| 2156 | 4.832E+04            | 2.074E-07 | 5.412E-05    |
| 2157 | 4.832E+04            | 1.973E-07 | 5.148E-05    |
| 2158 | 4.832E+04            | 1.877E-07 | 4.897E-05    |

continued

Table D-27. Emission Rate of Toluene from Parcel 2 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 4.832E+04            | 1.785E-07 | 4.658E-05    |
| 2160 | 4.832E+04            | 1.698E-07 | 4.431E-05    |
| 2161 | 4.832E+04            | 1.615E-07 | 4.215E-05    |
| 2162 | 4.832E+04            | 1.537E-07 | 4.010E-05    |
| 2163 | 4.832E+04            | 1.462E-07 | 3.814E-05    |
| 2164 | 4.832E+04            | 1.390E-07 | 3.628E-05    |
| 2165 | 4.832E+04            | 1.323E-07 | 3.451E-05    |
| 2166 | 4.832E+04            | 1.258E-07 | 3.283E-05    |
| 2167 | 4.832E+04            | 1.197E-07 | 3.123E-05    |
| 2168 | 4.832E+04            | 1.138E-07 | 2.970E-05    |
| 2169 | 4.832E+04            | 1.083E-07 | 2.825E-05    |
| 2170 | 4.832E+04            | 1.030E-07 | 2.688E-05    |
| 2171 | 4.832E+04            | 9.798E-08 | 2.557E-05    |
| 2172 | 4.832E+04            | 9.320E-08 | 2.432E-05    |
| 2173 | 4.832E+04            | 8.865E-08 | 2.313E-05    |
| 2174 | 4.832E+04            | 8.433E-08 | 2.200E-05    |
| 2175 | 4.832E+04            | 8.022E-08 | 2.093E-05    |
| 2176 | 4.832E+04            | 7.630E-08 | 1.991E-05    |
| 2177 | 4.832E+04            | 7.258E-08 | 1.894E-05    |
| 2178 | 4.832E+04            | 6.904E-08 | 1.802E-05    |
| 2179 | 4.832E+04            | 6.568E-08 | 1.714E-05    |
| 2180 | 4.832E+04            | 6.247E-08 | 1.630E-05    |
| 2181 | 4.832E+04            | 5.943E-08 | 1.551E-05    |
| 2182 | 4.832E+04            | 5.653E-08 | 1.475E-05    |
| 2183 | 4.832E+04            | 5.377E-08 | 1.403E-05    |
| 2184 | 4.832E+04            | 5.115E-08 | 1.335E-05    |
| 2185 | 4.832E+04            | 4.865E-08 | 1.270E-05    |
| 2186 | 4.832E+04            | 4.628E-08 | 1.208E-05    |
| 2187 | 4.832E+04            | 4.402E-08 | 1.149E-05    |
| 2188 | 4.832E+04            | 4.188E-08 | 1.093E-05    |
| 2189 | 4.832E+04            | 3.983E-08 | 1.039E-05    |
| 2190 | 4.832E+04            | 3.789E-08 | 9.887E-06    |
| 2191 | 4.832E+04            | 3.604E-08 | 9.405E-06    |
| 2192 | 4.832E+04            | 3.429E-08 | 8.946E-06    |
| 2193 | 4.832E+04            | 3.261E-08 | 8.510E-06    |
| 2194 | 4.832E+04            | 3.102E-08 | 8.095E-06    |
| 2195 | 4.832E+04            | 2.951E-08 | 7.700E-06    |
| 2196 | 4.832E+04            | 2.807E-08 | 7.325E-06    |
| 2197 | 4.832E+04            | 2.670E-08 | 6.967E-06    |
| 2198 | 4.832E+04            | 2.540E-08 | 6.628E-06    |
| 2199 | 4.832E+04            | 2.416E-08 | 6.304E-06    |
| 2200 | 4.832E+04            | 2.298E-08 | 5.997E-06    |
| 2201 | 4.832E+04            | 2.186E-08 | 5.705E-06    |
| 2202 | 4.832E+04            | 2.080E-08 | 5.426E-06    |
| 2203 | 4.832E+04            | 1.978E-08 | 5.162E-06    |

Table D-28. Emission Rate of Vinyl Chloride from Parcel 2 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA2.PRM

```

=====
                        Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2000.00 ppmv
Methane : 62.0000 % volume
Carbon Dioxide : 38.0000 % volume
Air Pollutant : Vinyl Chloride (HAP/VOC)
Molecular Wt = 62.50      Concentration = 0.220000 ppmV
=====

                        Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 48325 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                        Model Results
=====
Year      Refuse In Place (Mg)      Vinyl Chloride (HAP/VOC) Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      4.832E+03      3.789E-05      1.458E-02
1976      9.665E+03      7.393E-05      2.844E-02
1977      1.450E+04      1.082E-04      4.163E-02
1978      1.933E+04      1.408E-04      5.417E-02
1979      2.416E+04      1.718E-04      6.611E-02
1980      2.899E+04      2.014E-04      7.746E-02
1981      3.383E+04      2.294E-04      8.826E-02
1982      3.866E+04      2.561E-04      9.853E-02
1983      4.349E+04      2.815E-04      1.083E-01
1984      4.832E+04      3.057E-04      1.176E-01
1985      4.832E+04      2.908E-04      1.119E-01
1986      4.832E+04      2.766E-04      1.064E-01
1987      4.832E+04      2.631E-04      1.012E-01
1988      4.832E+04      2.503E-04      9.628E-02
1989      4.832E+04      2.381E-04      9.158E-02
1990      4.832E+04      2.265E-04      8.711E-02
1991      4.832E+04      2.154E-04      8.286E-02
1992      4.832E+04      2.049E-04      7.882E-02
1993      4.832E+04      1.949E-04      7.498E-02
1994      4.832E+04      1.854E-04      7.132E-02
1995      4.832E+04      1.764E-04      6.784E-02
1996      4.832E+04      1.678E-04      6.454E-02
1997      4.832E+04      1.596E-04      6.139E-02
1998      4.832E+04      1.518E-04      5.839E-02
1999      4.832E+04      1.444E-04      5.555E-02
2000      4.832E+04      1.374E-04      5.284E-02
2001      4.832E+04      1.307E-04      5.026E-02
2002      4.832E+04      1.243E-04      4.781E-02
2003      4.832E+04      1.182E-04      4.548E-02
2004      4.832E+04      1.125E-04      4.326E-02
2005      4.832E+04      1.070E-04      4.115E-02
2006      4.832E+04      1.018E-04      3.914E-02
2007      4.832E+04      9.679E-05      3.723E-02
2008      4.832E+04      9.207E-05      3.542E-02
2009      4.832E+04      8.758E-05      3.369E-02
2010      4.832E+04      8.331E-05      3.205E-02
2011      4.832E+04      7.925E-05      3.048E-02
2012      4.832E+04      7.538E-05      2.900E-02
2013      4.832E+04      7.170E-05      2.758E-02
2014      4.832E+04      6.821E-05      2.624E-02
2015      4.832E+04      6.488E-05      2.496E-02
2016      4.832E+04      6.172E-05      2.374E-02
2017      4.832E+04      5.871E-05      2.258E-02
2018      4.832E+04      5.584E-05      2.148E-02
=====

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continued

Table D-28. Emission Rate of Vinyl Chloride from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 4.832E+04            | 5.312E-05 | 2.043E-02    |
| 2020 | 4.832E+04            | 5.053E-05 | 1.944E-02    |
| 2021 | 4.832E+04            | 4.806E-05 | 1.849E-02    |
| 2022 | 4.832E+04            | 4.572E-05 | 1.759E-02    |
| 2023 | 4.832E+04            | 4.349E-05 | 1.673E-02    |
| 2024 | 4.832E+04            | 4.137E-05 | 1.591E-02    |
| 2025 | 4.832E+04            | 3.935E-05 | 1.514E-02    |
| 2026 | 4.832E+04            | 3.743E-05 | 1.440E-02    |
| 2027 | 4.832E+04            | 3.561E-05 | 1.370E-02    |
| 2028 | 4.832E+04            | 3.387E-05 | 1.303E-02    |
| 2029 | 4.832E+04            | 3.222E-05 | 1.239E-02    |
| 2030 | 4.832E+04            | 3.065E-05 | 1.179E-02    |
| 2031 | 4.832E+04            | 2.915E-05 | 1.121E-02    |
| 2032 | 4.832E+04            | 2.773E-05 | 1.067E-02    |
| 2033 | 4.832E+04            | 2.638E-05 | 1.015E-02    |
| 2034 | 4.832E+04            | 2.509E-05 | 9.652E-03    |
| 2035 | 4.832E+04            | 2.387E-05 | 9.182E-03    |
| 2036 | 4.832E+04            | 2.270E-05 | 8.734E-03    |
| 2037 | 4.832E+04            | 2.160E-05 | 8.308E-03    |
| 2038 | 4.832E+04            | 2.054E-05 | 7.903E-03    |
| 2039 | 4.832E+04            | 1.954E-05 | 7.517E-03    |
| 2040 | 4.832E+04            | 1.859E-05 | 7.151E-03    |
| 2041 | 4.832E+04            | 1.768E-05 | 6.802E-03    |
| 2042 | 4.832E+04            | 1.682E-05 | 6.470E-03    |
| 2043 | 4.832E+04            | 1.600E-05 | 6.155E-03    |
| 2044 | 4.832E+04            | 1.522E-05 | 5.854E-03    |
| 2045 | 4.832E+04            | 1.448E-05 | 5.569E-03    |
| 2046 | 4.832E+04            | 1.377E-05 | 5.297E-03    |
| 2047 | 4.832E+04            | 1.310E-05 | 5.039E-03    |
| 2048 | 4.832E+04            | 1.246E-05 | 4.793E-03    |
| 2049 | 4.832E+04            | 1.185E-05 | 4.559E-03    |
| 2050 | 4.832E+04            | 1.127E-05 | 4.337E-03    |
| 2051 | 4.832E+04            | 1.072E-05 | 4.126E-03    |
| 2052 | 4.832E+04            | 1.020E-05 | 3.924E-03    |
| 2053 | 4.832E+04            | 9.704E-06 | 3.733E-03    |
| 2054 | 4.832E+04            | 9.231E-06 | 3.551E-03    |
| 2055 | 4.832E+04            | 8.781E-06 | 3.378E-03    |
| 2056 | 4.832E+04            | 8.352E-06 | 3.213E-03    |
| 2057 | 4.832E+04            | 7.945E-06 | 3.056E-03    |
| 2058 | 4.832E+04            | 7.558E-06 | 2.907E-03    |
| 2059 | 4.832E+04            | 7.189E-06 | 2.765E-03    |
| 2060 | 4.832E+04            | 6.838E-06 | 2.631E-03    |
| 2061 | 4.832E+04            | 6.505E-06 | 2.502E-03    |
| 2062 | 4.832E+04            | 6.188E-06 | 2.380E-03    |
| 2063 | 4.832E+04            | 5.886E-06 | 2.264E-03    |
| 2064 | 4.832E+04            | 5.599E-06 | 2.154E-03    |
| 2065 | 4.832E+04            | 5.326E-06 | 2.049E-03    |
| 2066 | 4.832E+04            | 5.066E-06 | 1.949E-03    |
| 2067 | 4.832E+04            | 4.819E-06 | 1.854E-03    |
| 2068 | 4.832E+04            | 4.584E-06 | 1.763E-03    |
| 2069 | 4.832E+04            | 4.360E-06 | 1.677E-03    |
| 2070 | 4.832E+04            | 4.148E-06 | 1.596E-03    |
| 2071 | 4.832E+04            | 3.945E-06 | 1.518E-03    |
| 2072 | 4.832E+04            | 3.753E-06 | 1.444E-03    |
| 2073 | 4.832E+04            | 3.570E-06 | 1.373E-03    |
| 2074 | 4.832E+04            | 3.396E-06 | 1.306E-03    |
| 2075 | 4.832E+04            | 3.230E-06 | 1.243E-03    |
| 2076 | 4.832E+04            | 3.073E-06 | 1.182E-03    |
| 2077 | 4.832E+04            | 2.923E-06 | 1.124E-03    |
| 2078 | 4.832E+04            | 2.780E-06 | 1.070E-03    |
| 2079 | 4.832E+04            | 2.645E-06 | 1.017E-03    |
| 2080 | 4.832E+04            | 2.516E-06 | 9.677E-04    |
| 2081 | 4.832E+04            | 2.393E-06 | 9.205E-04    |
| 2082 | 4.832E+04            | 2.276E-06 | 8.756E-04    |
| 2083 | 4.832E+04            | 2.165E-06 | 8.329E-04    |
| 2084 | 4.832E+04            | 2.060E-06 | 7.923E-04    |
| 2085 | 4.832E+04            | 1.959E-06 | 7.537E-04    |
| 2086 | 4.832E+04            | 1.864E-06 | 7.169E-04    |
| 2087 | 4.832E+04            | 1.773E-06 | 6.820E-04    |
| 2088 | 4.832E+04            | 1.686E-06 | 6.487E-04    |

continued



Table D-28. Emission Rate of Vinyl Chloride from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 4.832E+04            | 1.604E-06 | 6.171E-04    |
| 2090 | 4.832E+04            | 1.526E-06 | 5.870E-04    |
| 2091 | 4.832E+04            | 1.451E-06 | 5.583E-04    |
| 2092 | 4.832E+04            | 1.381E-06 | 5.311E-04    |
| 2093 | 4.832E+04            | 1.313E-06 | 5.052E-04    |
| 2094 | 4.832E+04            | 1.249E-06 | 4.806E-04    |
| 2095 | 4.832E+04            | 1.188E-06 | 4.571E-04    |
| 2096 | 4.832E+04            | 1.130E-06 | 4.348E-04    |
| 2097 | 4.832E+04            | 1.075E-06 | 4.136E-04    |
| 2098 | 4.832E+04            | 1.023E-06 | 3.935E-04    |
| 2099 | 4.832E+04            | 9.729E-07 | 3.743E-04    |
| 2100 | 4.832E+04            | 9.255E-07 | 3.560E-04    |
| 2101 | 4.832E+04            | 8.803E-07 | 3.386E-04    |
| 2102 | 4.832E+04            | 8.374E-07 | 3.221E-04    |
| 2103 | 4.832E+04            | 7.966E-07 | 3.064E-04    |
| 2104 | 4.832E+04            | 7.577E-07 | 2.915E-04    |
| 2105 | 4.832E+04            | 7.208E-07 | 2.773E-04    |
| 2106 | 4.832E+04            | 6.856E-07 | 2.637E-04    |
| 2107 | 4.832E+04            | 6.522E-07 | 2.509E-04    |
| 2108 | 4.832E+04            | 6.204E-07 | 2.386E-04    |
| 2109 | 4.832E+04            | 5.901E-07 | 2.270E-04    |
| 2110 | 4.832E+04            | 5.613E-07 | 2.159E-04    |
| 2111 | 4.832E+04            | 5.340E-07 | 2.054E-04    |
| 2112 | 4.832E+04            | 5.079E-07 | 1.954E-04    |
| 2113 | 4.832E+04            | 4.831E-07 | 1.859E-04    |
| 2114 | 4.832E+04            | 4.596E-07 | 1.768E-04    |
| 2115 | 4.832E+04            | 4.372E-07 | 1.682E-04    |
| 2116 | 4.832E+04            | 4.158E-07 | 1.600E-04    |
| 2117 | 4.832E+04            | 3.956E-07 | 1.522E-04    |
| 2118 | 4.832E+04            | 3.763E-07 | 1.447E-04    |
| 2119 | 4.832E+04            | 3.579E-07 | 1.377E-04    |
| 2120 | 4.832E+04            | 3.405E-07 | 1.310E-04    |
| 2121 | 4.832E+04            | 3.239E-07 | 1.246E-04    |
| 2122 | 4.832E+04            | 3.081E-07 | 1.185E-04    |
| 2123 | 4.832E+04            | 2.930E-07 | 1.127E-04    |
| 2124 | 4.832E+04            | 2.787E-07 | 1.072E-04    |
| 2125 | 4.832E+04            | 2.652E-07 | 1.020E-04    |
| 2126 | 4.832E+04            | 2.522E-07 | 9.702E-05    |
| 2127 | 4.832E+04            | 2.399E-07 | 9.229E-05    |
| 2128 | 4.832E+04            | 2.282E-07 | 8.779E-05    |
| 2129 | 4.832E+04            | 2.171E-07 | 8.351E-05    |
| 2130 | 4.832E+04            | 2.065E-07 | 7.944E-05    |
| 2131 | 4.832E+04            | 1.964E-07 | 7.556E-05    |
| 2132 | 4.832E+04            | 1.868E-07 | 7.188E-05    |
| 2133 | 4.832E+04            | 1.777E-07 | 6.837E-05    |
| 2134 | 4.832E+04            | 1.691E-07 | 6.504E-05    |
| 2135 | 4.832E+04            | 1.608E-07 | 6.187E-05    |
| 2136 | 4.832E+04            | 1.530E-07 | 5.885E-05    |
| 2137 | 4.832E+04            | 1.455E-07 | 5.598E-05    |
| 2138 | 4.832E+04            | 1.384E-07 | 5.325E-05    |
| 2139 | 4.832E+04            | 1.317E-07 | 5.065E-05    |
| 2140 | 4.832E+04            | 1.252E-07 | 4.818E-05    |
| 2141 | 4.832E+04            | 1.191E-07 | 4.583E-05    |
| 2142 | 4.832E+04            | 1.133E-07 | 4.360E-05    |
| 2143 | 4.832E+04            | 1.078E-07 | 4.147E-05    |
| 2144 | 4.832E+04            | 1.025E-07 | 3.945E-05    |
| 2145 | 4.832E+04            | 9.754E-08 | 3.752E-05    |
| 2146 | 4.832E+04            | 9.279E-08 | 3.569E-05    |
| 2147 | 4.832E+04            | 8.826E-08 | 3.395E-05    |
| 2148 | 4.832E+04            | 8.396E-08 | 3.230E-05    |
| 2149 | 4.832E+04            | 7.986E-08 | 3.072E-05    |
| 2150 | 4.832E+04            | 7.597E-08 | 2.922E-05    |
| 2151 | 4.832E+04            | 7.226E-08 | 2.780E-05    |
| 2152 | 4.832E+04            | 6.874E-08 | 2.644E-05    |
| 2153 | 4.832E+04            | 6.539E-08 | 2.515E-05    |
| 2154 | 4.832E+04            | 6.220E-08 | 2.393E-05    |
| 2155 | 4.832E+04            | 5.916E-08 | 2.276E-05    |
| 2156 | 4.832E+04            | 5.628E-08 | 2.165E-05    |
| 2157 | 4.832E+04            | 5.353E-08 | 2.059E-05    |
| 2158 | 4.832E+04            | 5.092E-08 | 1.959E-05    |

continued

Table D-28. Emission Rate of Vinyl Chloride from Parcel 2 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 4.832E+04            | 4.844E-08 | 1.863E-05    |
| 2160 | 4.832E+04            | 4.608E-08 | 1.772E-05    |
| 2161 | 4.832E+04            | 4.383E-08 | 1.686E-05    |
| 2162 | 4.832E+04            | 4.169E-08 | 1.604E-05    |
| 2163 | 4.832E+04            | 3.966E-08 | 1.526E-05    |
| 2164 | 4.832E+04            | 3.772E-08 | 1.451E-05    |
| 2165 | 4.832E+04            | 3.588E-08 | 1.380E-05    |
| 2166 | 4.832E+04            | 3.413E-08 | 1.313E-05    |
| 2167 | 4.832E+04            | 3.247E-08 | 1.249E-05    |
| 2168 | 4.832E+04            | 3.089E-08 | 1.188E-05    |
| 2169 | 4.832E+04            | 2.938E-08 | 1.130E-05    |
| 2170 | 4.832E+04            | 2.795E-08 | 1.075E-05    |
| 2171 | 4.832E+04            | 2.658E-08 | 1.023E-05    |
| 2172 | 4.832E+04            | 2.529E-08 | 9.728E-06    |
| 2173 | 4.832E+04            | 2.405E-08 | 9.253E-06    |
| 2174 | 4.832E+04            | 2.288E-08 | 8.802E-06    |
| 2175 | 4.832E+04            | 2.176E-08 | 8.373E-06    |
| 2176 | 4.832E+04            | 2.070E-08 | 7.964E-06    |
| 2177 | 4.832E+04            | 1.969E-08 | 7.576E-06    |
| 2178 | 4.832E+04            | 1.873E-08 | 7.206E-06    |
| 2179 | 4.832E+04            | 1.782E-08 | 6.855E-06    |
| 2180 | 4.832E+04            | 1.695E-08 | 6.521E-06    |
| 2181 | 4.832E+04            | 1.612E-08 | 6.203E-06    |
| 2182 | 4.832E+04            | 1.534E-08 | 5.900E-06    |
| 2183 | 4.832E+04            | 1.459E-08 | 5.612E-06    |
| 2184 | 4.832E+04            | 1.388E-08 | 5.339E-06    |
| 2185 | 4.832E+04            | 1.320E-08 | 5.078E-06    |
| 2186 | 4.832E+04            | 1.256E-08 | 4.831E-06    |
| 2187 | 4.832E+04            | 1.194E-08 | 4.595E-06    |
| 2188 | 4.832E+04            | 1.136E-08 | 4.371E-06    |
| 2189 | 4.832E+04            | 1.081E-08 | 4.158E-06    |
| 2190 | 4.832E+04            | 1.028E-08 | 3.955E-06    |
| 2191 | 4.832E+04            | 9.780E-09 | 3.762E-06    |
| 2192 | 4.832E+04            | 9.303E-09 | 3.579E-06    |
| 2193 | 4.832E+04            | 8.849E-09 | 3.404E-06    |
| 2194 | 4.832E+04            | 8.417E-09 | 3.238E-06    |
| 2195 | 4.832E+04            | 8.007E-09 | 3.080E-06    |
| 2196 | 4.832E+04            | 7.616E-09 | 2.930E-06    |
| 2197 | 4.832E+04            | 7.245E-09 | 2.787E-06    |
| 2198 | 4.832E+04            | 6.892E-09 | 2.651E-06    |
| 2199 | 4.832E+04            | 6.555E-09 | 2.522E-06    |
| 2200 | 4.832E+04            | 6.236E-09 | 2.399E-06    |
| 2201 | 4.832E+04            | 5.932E-09 | 2.282E-06    |
| 2202 | 4.832E+04            | 5.642E-09 | 2.171E-06    |
| 2203 | 4.832E+04            | 5.367E-09 | 2.065E-06    |

Table D-29. Emission Rate of m,p-Xylene from Parcel 2 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177-1.003\BUSHVA-1\STRATA2.PRM

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=====
                        Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2000.00 ppmv
Methane : 62.0000 % volume
Carbon Dioxide : 38.0000 % volume
Air Pollutant : mpXylene (HAP/VOC)
Molecular Wt = 106.17      Concentration =      8.000000 ppmV
=====

                        Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 48325 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                        Model Results
=====
Year      Refuse In Place (Mg)      mpXylene (HAP/VOC) Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      4.832E+03      2.340E-03      5.300E-01
1976      9.665E+03      4.567E-03      1.034E+00
1977      1.450E+04      6.685E-03      1.514E+00
1978      1.933E+04      8.699E-03      1.970E+00
1979      2.416E+04      1.062E-02      2.404E+00
1980      2.899E+04      1.244E-02      2.817E+00
1981      3.383E+04      1.417E-02      3.209E+00
1982      3.866E+04      1.582E-02      3.583E+00
1983      4.349E+04      1.739E-02      3.938E+00
1984      4.832E+04      1.888E-02      4.276E+00
1985      4.832E+04      1.796E-02      4.067E+00
1986      4.832E+04      1.709E-02      3.869E+00
1987      4.832E+04      1.625E-02      3.680E+00
1988      4.832E+04      1.546E-02      3.501E+00
1989      4.832E+04      1.471E-02      3.330E+00
1990      4.832E+04      1.399E-02      3.168E+00
1991      4.832E+04      1.331E-02      3.013E+00
1992      4.832E+04      1.266E-02      2.866E+00
1993      4.832E+04      1.204E-02      2.727E+00
1994      4.832E+04      1.145E-02      2.594E+00
1995      4.832E+04      1.089E-02      2.467E+00
1996      4.832E+04      1.036E-02      2.347E+00
1997      4.832E+04      9.858E-03      2.232E+00
1998      4.832E+04      9.377E-03      2.123E+00
1999      4.832E+04      8.919E-03      2.020E+00
2000      4.832E+04      8.484E-03      1.921E+00
2001      4.832E+04      8.071E-03      1.828E+00
2002      4.832E+04      7.677E-03      1.739E+00
2003      4.832E+04      7.303E-03      1.654E+00
2004      4.832E+04      6.946E-03      1.573E+00
2005      4.832E+04      6.608E-03      1.496E+00
2006      4.832E+04      6.285E-03      1.423E+00
2007      4.832E+04      5.979E-03      1.354E+00
2008      4.832E+04      5.687E-03      1.288E+00
2009      4.832E+04      5.410E-03      1.225E+00
2010      4.832E+04      5.146E-03      1.165E+00
2011      4.832E+04      4.895E-03      1.109E+00
2012      4.832E+04      4.656E-03      1.054E+00
2013      4.832E+04      4.429E-03      1.003E+00
2014      4.832E+04      4.213E-03      9.541E-01
2015      4.832E+04      4.008E-03      9.076E-01
2016      4.832E+04      3.812E-03      8.633E-01
2017      4.832E+04      3.626E-03      8.212E-01
2018      4.832E+04      3.450E-03      7.812E-01
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continued

Table D-29. Emission Rate of m,p-Xylene from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 4.832E+04            | 3.281E-03 | 7.431E-01    |
| 2020 | 4.832E+04            | 3.121E-03 | 7.068E-01    |
| 2021 | 4.832E+04            | 2.969E-03 | 6.723E-01    |
| 2022 | 4.832E+04            | 2.824E-03 | 6.396E-01    |
| 2023 | 4.832E+04            | 2.686E-03 | 6.084E-01    |
| 2024 | 4.832E+04            | 2.555E-03 | 5.787E-01    |
| 2025 | 4.832E+04            | 2.431E-03 | 5.505E-01    |
| 2026 | 4.832E+04            | 2.312E-03 | 5.236E-01    |
| 2027 | 4.832E+04            | 2.200E-03 | 4.981E-01    |
| 2028 | 4.832E+04            | 2.092E-03 | 4.738E-01    |
| 2029 | 4.832E+04            | 1.990E-03 | 4.507E-01    |
| 2030 | 4.832E+04            | 1.893E-03 | 4.287E-01    |
| 2031 | 4.832E+04            | 1.801E-03 | 4.078E-01    |
| 2032 | 4.832E+04            | 1.713E-03 | 3.879E-01    |
| 2033 | 4.832E+04            | 1.629E-03 | 3.690E-01    |
| 2034 | 4.832E+04            | 1.550E-03 | 3.510E-01    |
| 2035 | 4.832E+04            | 1.474E-03 | 3.339E-01    |
| 2036 | 4.832E+04            | 1.402E-03 | 3.176E-01    |
| 2037 | 4.832E+04            | 1.334E-03 | 3.021E-01    |
| 2038 | 4.832E+04            | 1.269E-03 | 2.874E-01    |
| 2039 | 4.832E+04            | 1.207E-03 | 2.734E-01    |
| 2040 | 4.832E+04            | 1.148E-03 | 2.600E-01    |
| 2041 | 4.832E+04            | 1.092E-03 | 2.473E-01    |
| 2042 | 4.832E+04            | 1.039E-03 | 2.353E-01    |
| 2043 | 4.832E+04            | 9.883E-04 | 2.238E-01    |
| 2044 | 4.832E+04            | 9.401E-04 | 2.129E-01    |
| 2045 | 4.832E+04            | 8.943E-04 | 2.025E-01    |
| 2046 | 4.832E+04            | 8.506E-04 | 1.926E-01    |
| 2047 | 4.832E+04            | 8.092E-04 | 1.832E-01    |
| 2048 | 4.832E+04            | 7.697E-04 | 1.743E-01    |
| 2049 | 4.832E+04            | 7.322E-04 | 1.658E-01    |
| 2050 | 4.832E+04            | 6.964E-04 | 1.577E-01    |
| 2051 | 4.832E+04            | 6.625E-04 | 1.500E-01    |
| 2052 | 4.832E+04            | 6.302E-04 | 1.427E-01    |
| 2053 | 4.832E+04            | 5.994E-04 | 1.357E-01    |
| 2054 | 4.832E+04            | 5.702E-04 | 1.291E-01    |
| 2055 | 4.832E+04            | 5.424E-04 | 1.228E-01    |
| 2056 | 4.832E+04            | 5.159E-04 | 1.168E-01    |
| 2057 | 4.832E+04            | 4.908E-04 | 1.111E-01    |
| 2058 | 4.832E+04            | 4.668E-04 | 1.057E-01    |
| 2059 | 4.832E+04            | 4.441E-04 | 1.006E-01    |
| 2060 | 4.832E+04            | 4.224E-04 | 9.566E-02    |
| 2061 | 4.832E+04            | 4.018E-04 | 9.099E-02    |
| 2062 | 4.832E+04            | 3.822E-04 | 8.655E-02    |
| 2063 | 4.832E+04            | 3.636E-04 | 8.233E-02    |
| 2064 | 4.832E+04            | 3.458E-04 | 7.832E-02    |
| 2065 | 4.832E+04            | 3.290E-04 | 7.450E-02    |
| 2066 | 4.832E+04            | 3.129E-04 | 7.087E-02    |
| 2067 | 4.832E+04            | 2.977E-04 | 6.741E-02    |
| 2068 | 4.832E+04            | 2.832E-04 | 6.412E-02    |
| 2069 | 4.832E+04            | 2.693E-04 | 6.099E-02    |
| 2070 | 4.832E+04            | 2.562E-04 | 5.802E-02    |
| 2071 | 4.832E+04            | 2.437E-04 | 5.519E-02    |
| 2072 | 4.832E+04            | 2.318E-04 | 5.250E-02    |
| 2073 | 4.832E+04            | 2.205E-04 | 4.994E-02    |
| 2074 | 4.832E+04            | 2.098E-04 | 4.750E-02    |
| 2075 | 4.832E+04            | 1.995E-04 | 4.519E-02    |
| 2076 | 4.832E+04            | 1.898E-04 | 4.298E-02    |
| 2077 | 4.832E+04            | 1.805E-04 | 4.089E-02    |
| 2078 | 4.832E+04            | 1.717E-04 | 3.889E-02    |
| 2079 | 4.832E+04            | 1.634E-04 | 3.699E-02    |
| 2080 | 4.832E+04            | 1.554E-04 | 3.519E-02    |
| 2081 | 4.832E+04            | 1.478E-04 | 3.347E-02    |
| 2082 | 4.832E+04            | 1.406E-04 | 3.184E-02    |
| 2083 | 4.832E+04            | 1.338E-04 | 3.029E-02    |
| 2084 | 4.832E+04            | 1.272E-04 | 2.881E-02    |
| 2085 | 4.832E+04            | 1.210E-04 | 2.741E-02    |
| 2086 | 4.832E+04            | 1.151E-04 | 2.607E-02    |
| 2087 | 4.832E+04            | 1.095E-04 | 2.480E-02    |
| 2088 | 4.832E+04            | 1.042E-04 | 2.359E-02    |

continued

Table D-29. Emission Rate of m,p-Xylene from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 4.832E+04            | 9.909E-05 | 2.244E-02    |
| 2090 | 4.832E+04            | 9.425E-05 | 2.134E-02    |
| 2091 | 4.832E+04            | 8.966E-05 | 2.030E-02    |
| 2092 | 4.832E+04            | 8.528E-05 | 1.931E-02    |
| 2093 | 4.832E+04            | 8.113E-05 | 1.837E-02    |
| 2094 | 4.832E+04            | 7.717E-05 | 1.748E-02    |
| 2095 | 4.832E+04            | 7.341E-05 | 1.662E-02    |
| 2096 | 4.832E+04            | 6.982E-05 | 1.581E-02    |
| 2097 | 4.832E+04            | 6.642E-05 | 1.504E-02    |
| 2098 | 4.832E+04            | 6.318E-05 | 1.431E-02    |
| 2099 | 4.832E+04            | 6.010E-05 | 1.361E-02    |
| 2100 | 4.832E+04            | 5.717E-05 | 1.295E-02    |
| 2101 | 4.832E+04            | 5.438E-05 | 1.231E-02    |
| 2102 | 4.832E+04            | 5.173E-05 | 1.171E-02    |
| 2103 | 4.832E+04            | 4.920E-05 | 1.114E-02    |
| 2104 | 4.832E+04            | 4.681E-05 | 1.060E-02    |
| 2105 | 4.832E+04            | 4.452E-05 | 1.008E-02    |
| 2106 | 4.832E+04            | 4.235E-05 | 9.591E-03    |
| 2107 | 4.832E+04            | 4.029E-05 | 9.123E-03    |
| 2108 | 4.832E+04            | 3.832E-05 | 8.678E-03    |
| 2109 | 4.832E+04            | 3.645E-05 | 8.255E-03    |
| 2110 | 4.832E+04            | 3.467E-05 | 7.852E-03    |
| 2111 | 4.832E+04            | 3.298E-05 | 7.469E-03    |
| 2112 | 4.832E+04            | 3.137E-05 | 7.105E-03    |
| 2113 | 4.832E+04            | 2.984E-05 | 6.758E-03    |
| 2114 | 4.832E+04            | 2.839E-05 | 6.429E-03    |
| 2115 | 4.832E+04            | 2.700E-05 | 6.115E-03    |
| 2116 | 4.832E+04            | 2.569E-05 | 5.817E-03    |
| 2117 | 4.832E+04            | 2.443E-05 | 5.533E-03    |
| 2118 | 4.832E+04            | 2.324E-05 | 5.263E-03    |
| 2119 | 4.832E+04            | 2.211E-05 | 5.007E-03    |
| 2120 | 4.832E+04            | 2.103E-05 | 4.763E-03    |
| 2121 | 4.832E+04            | 2.001E-05 | 4.530E-03    |
| 2122 | 4.832E+04            | 1.903E-05 | 4.309E-03    |
| 2123 | 4.832E+04            | 1.810E-05 | 4.099E-03    |
| 2124 | 4.832E+04            | 1.722E-05 | 3.899E-03    |
| 2125 | 4.832E+04            | 1.638E-05 | 3.709E-03    |
| 2126 | 4.832E+04            | 1.558E-05 | 3.528E-03    |
| 2127 | 4.832E+04            | 1.482E-05 | 3.356E-03    |
| 2128 | 4.832E+04            | 1.410E-05 | 3.192E-03    |
| 2129 | 4.832E+04            | 1.341E-05 | 3.037E-03    |
| 2130 | 4.832E+04            | 1.276E-05 | 2.889E-03    |
| 2131 | 4.832E+04            | 1.213E-05 | 2.748E-03    |
| 2132 | 4.832E+04            | 1.154E-05 | 2.614E-03    |
| 2133 | 4.832E+04            | 1.098E-05 | 2.486E-03    |
| 2134 | 4.832E+04            | 1.044E-05 | 2.365E-03    |
| 2135 | 4.832E+04            | 9.934E-06 | 2.250E-03    |
| 2136 | 4.832E+04            | 9.450E-06 | 2.140E-03    |
| 2137 | 4.832E+04            | 8.989E-06 | 2.036E-03    |
| 2138 | 4.832E+04            | 8.551E-06 | 1.936E-03    |
| 2139 | 4.832E+04            | 8.134E-06 | 1.842E-03    |
| 2140 | 4.832E+04            | 7.737E-06 | 1.752E-03    |
| 2141 | 4.832E+04            | 7.360E-06 | 1.667E-03    |
| 2142 | 4.832E+04            | 7.001E-06 | 1.585E-03    |
| 2143 | 4.832E+04            | 6.659E-06 | 1.508E-03    |
| 2144 | 4.832E+04            | 6.334E-06 | 1.434E-03    |
| 2145 | 4.832E+04            | 6.025E-06 | 1.364E-03    |
| 2146 | 4.832E+04            | 5.732E-06 | 1.298E-03    |
| 2147 | 4.832E+04            | 5.452E-06 | 1.235E-03    |
| 2148 | 4.832E+04            | 5.186E-06 | 1.174E-03    |
| 2149 | 4.832E+04            | 4.933E-06 | 1.117E-03    |
| 2150 | 4.832E+04            | 4.693E-06 | 1.063E-03    |
| 2151 | 4.832E+04            | 4.464E-06 | 1.011E-03    |
| 2152 | 4.832E+04            | 4.246E-06 | 9.615E-04    |
| 2153 | 4.832E+04            | 4.039E-06 | 9.146E-04    |
| 2154 | 4.832E+04            | 3.842E-06 | 8.700E-04    |
| 2155 | 4.832E+04            | 3.655E-06 | 8.276E-04    |
| 2156 | 4.832E+04            | 3.476E-06 | 7.872E-04    |
| 2157 | 4.832E+04            | 3.307E-06 | 7.488E-04    |
| 2158 | 4.832E+04            | 3.146E-06 | 7.123E-04    |

continued

Table D-29. Emission Rate of m,p-Xylene from Parcel 2 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 4.832E+04            | 2.992E-06 | 6.776E-04    |
| 2160 | 4.832E+04            | 2.846E-06 | 6.445E-04    |
| 2161 | 4.832E+04            | 2.707E-06 | 6.131E-04    |
| 2162 | 4.832E+04            | 2.575E-06 | 5.832E-04    |
| 2163 | 4.832E+04            | 2.450E-06 | 5.548E-04    |
| 2164 | 4.832E+04            | 2.330E-06 | 5.277E-04    |
| 2165 | 4.832E+04            | 2.217E-06 | 5.020E-04    |
| 2166 | 4.832E+04            | 2.109E-06 | 4.775E-04    |
| 2167 | 4.832E+04            | 2.006E-06 | 4.542E-04    |
| 2168 | 4.832E+04            | 1.908E-06 | 4.320E-04    |
| 2169 | 4.832E+04            | 1.815E-06 | 4.110E-04    |
| 2170 | 4.832E+04            | 1.726E-06 | 3.909E-04    |
| 2171 | 4.832E+04            | 1.642E-06 | 3.719E-04    |
| 2172 | 4.832E+04            | 1.562E-06 | 3.537E-04    |
| 2173 | 4.832E+04            | 1.486E-06 | 3.365E-04    |
| 2174 | 4.832E+04            | 1.413E-06 | 3.201E-04    |
| 2175 | 4.832E+04            | 1.344E-06 | 3.045E-04    |
| 2176 | 4.832E+04            | 1.279E-06 | 2.896E-04    |
| 2177 | 4.832E+04            | 1.217E-06 | 2.755E-04    |
| 2178 | 4.832E+04            | 1.157E-06 | 2.620E-04    |
| 2179 | 4.832E+04            | 1.101E-06 | 2.493E-04    |
| 2180 | 4.832E+04            | 1.047E-06 | 2.371E-04    |
| 2181 | 4.832E+04            | 9.960E-07 | 2.255E-04    |
| 2182 | 4.832E+04            | 9.474E-07 | 2.145E-04    |
| 2183 | 4.832E+04            | 9.012E-07 | 2.041E-04    |
| 2184 | 4.832E+04            | 8.573E-07 | 1.941E-04    |
| 2185 | 4.832E+04            | 8.155E-07 | 1.847E-04    |
| 2186 | 4.832E+04            | 7.757E-07 | 1.757E-04    |
| 2187 | 4.832E+04            | 7.379E-07 | 1.671E-04    |
| 2188 | 4.832E+04            | 7.019E-07 | 1.589E-04    |
| 2189 | 4.832E+04            | 6.676E-07 | 1.512E-04    |
| 2190 | 4.832E+04            | 6.351E-07 | 1.438E-04    |
| 2191 | 4.832E+04            | 6.041E-07 | 1.368E-04    |
| 2192 | 4.832E+04            | 5.746E-07 | 1.301E-04    |
| 2193 | 4.832E+04            | 5.466E-07 | 1.238E-04    |
| 2194 | 4.832E+04            | 5.200E-07 | 1.177E-04    |
| 2195 | 4.832E+04            | 4.946E-07 | 1.120E-04    |
| 2196 | 4.832E+04            | 4.705E-07 | 1.065E-04    |
| 2197 | 4.832E+04            | 4.475E-07 | 1.013E-04    |
| 2198 | 4.832E+04            | 4.257E-07 | 9.640E-05    |
| 2199 | 4.832E+04            | 4.049E-07 | 9.170E-05    |
| 2200 | 4.832E+04            | 3.852E-07 | 8.723E-05    |
| 2201 | 4.832E+04            | 3.664E-07 | 8.297E-05    |
| 2202 | 4.832E+04            | 3.485E-07 | 7.893E-05    |
| 2203 | 4.832E+04            | 3.315E-07 | 7.508E-05    |

Table D-30. Emission Rate of o-Xylene from Parcel 2 for Years 1975 to 2203.

Source: H:\3000\030177-2.000\030177-1.003\BUSHVA-1\STRATA2.PRM

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=====
                        Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 2000.00 ppmv
Methane : 62.0000 % volume
Carbon Dioxide : 38.0000 % volume
Air Pollutant : oXylene (HAP/VOC)
Molecular Wt = 106.17      Concentration =      2.400000 ppmV
=====

                        Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 48325 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====

                        Model Results
=====
Year      Refuse In Place (Mg)      oXylene (HAP/VOC) Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      4.832E+03      7.021E-04      1.590E-01
1976      9.665E+03      1.370E-03      3.103E-01
1977      1.450E+04      2.005E-03      4.541E-01
1978      1.933E+04      2.610E-03      5.910E-01
1979      2.416E+04      3.185E-03      7.212E-01
1980      2.899E+04      3.731E-03      8.450E-01
1981      3.383E+04      4.252E-03      9.628E-01
1982      3.866E+04      4.746E-03      1.075E+00
1983      4.349E+04      5.217E-03      1.181E+00
1984      4.832E+04      5.665E-03      1.283E+00
1985      4.832E+04      5.388E-03      1.220E+00
1986      4.832E+04      5.126E-03      1.161E+00
1987      4.832E+04      4.876E-03      1.104E+00
1988      4.832E+04      4.638E-03      1.050E+00
1989      4.832E+04      4.412E-03      9.991E-01
1990      4.832E+04      4.197E-03      9.503E-01
1991      4.832E+04      3.992E-03      9.040E-01
1992      4.832E+04      3.797E-03      8.599E-01
1993      4.832E+04      3.612E-03      8.180E-01
1994      4.832E+04      3.436E-03      7.781E-01
1995      4.832E+04      3.268E-03      7.401E-01
1996      4.832E+04      3.109E-03      7.040E-01
1997      4.832E+04      2.957E-03      6.697E-01
1998      4.832E+04      2.813E-03      6.370E-01
1999      4.832E+04      2.676E-03      6.060E-01
2000      4.832E+04      2.545E-03      5.764E-01
2001      4.832E+04      2.421E-03      5.483E-01
2002      4.832E+04      2.303E-03      5.216E-01
2003      4.832E+04      2.191E-03      4.961E-01
2004      4.832E+04      2.084E-03      4.719E-01
2005      4.832E+04      1.982E-03      4.489E-01
2006      4.832E+04      1.886E-03      4.270E-01
2007      4.832E+04      1.794E-03      4.062E-01
2008      4.832E+04      1.706E-03      3.864E-01
2009      4.832E+04      1.623E-03      3.675E-01
2010      4.832E+04      1.544E-03      3.496E-01
2011      4.832E+04      1.469E-03      3.326E-01
2012      4.832E+04      1.397E-03      3.163E-01
2013      4.832E+04      1.329E-03      3.009E-01
2014      4.832E+04      1.264E-03      2.862E-01
2015      4.832E+04      1.202E-03      2.723E-01
2016      4.832E+04      1.144E-03      2.590E-01
2017      4.832E+04      1.088E-03      2.464E-01
2018      4.832E+04      1.035E-03      2.343E-01
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continued

Table D-30. Emission Rate of o-Xylene from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 4.832E+04            | 9.844E-04 | 2.229E-01    |
| 2020 | 4.832E+04            | 9.364E-04 | 2.120E-01    |
| 2021 | 4.832E+04            | 8.907E-04 | 2.017E-01    |
| 2022 | 4.832E+04            | 8.473E-04 | 1.919E-01    |
| 2023 | 4.832E+04            | 8.059E-04 | 1.825E-01    |
| 2024 | 4.832E+04            | 7.666E-04 | 1.736E-01    |
| 2025 | 4.832E+04            | 7.293E-04 | 1.651E-01    |
| 2026 | 4.832E+04            | 6.937E-04 | 1.571E-01    |
| 2027 | 4.832E+04            | 6.599E-04 | 1.494E-01    |
| 2028 | 4.832E+04            | 6.277E-04 | 1.421E-01    |
| 2029 | 4.832E+04            | 5.971E-04 | 1.352E-01    |
| 2030 | 4.832E+04            | 5.679E-04 | 1.286E-01    |
| 2031 | 4.832E+04            | 5.402E-04 | 1.223E-01    |
| 2032 | 4.832E+04            | 5.139E-04 | 1.164E-01    |
| 2033 | 4.832E+04            | 4.888E-04 | 1.107E-01    |
| 2034 | 4.832E+04            | 4.650E-04 | 1.053E-01    |
| 2035 | 4.832E+04            | 4.423E-04 | 1.002E-01    |
| 2036 | 4.832E+04            | 4.207E-04 | 9.528E-02    |
| 2037 | 4.832E+04            | 4.002E-04 | 9.063E-02    |
| 2038 | 4.832E+04            | 3.807E-04 | 8.621E-02    |
| 2039 | 4.832E+04            | 3.621E-04 | 8.201E-02    |
| 2040 | 4.832E+04            | 3.445E-04 | 7.801E-02    |
| 2041 | 4.832E+04            | 3.277E-04 | 7.420E-02    |
| 2042 | 4.832E+04            | 3.117E-04 | 7.058E-02    |
| 2043 | 4.832E+04            | 2.965E-04 | 6.714E-02    |
| 2044 | 4.832E+04            | 2.820E-04 | 6.387E-02    |
| 2045 | 4.832E+04            | 2.683E-04 | 6.075E-02    |
| 2046 | 4.832E+04            | 2.552E-04 | 5.779E-02    |
| 2047 | 4.832E+04            | 2.427E-04 | 5.497E-02    |
| 2048 | 4.832E+04            | 2.309E-04 | 5.229E-02    |
| 2049 | 4.832E+04            | 2.196E-04 | 4.974E-02    |
| 2050 | 4.832E+04            | 2.089E-04 | 4.731E-02    |
| 2051 | 4.832E+04            | 1.987E-04 | 4.501E-02    |
| 2052 | 4.832E+04            | 1.891E-04 | 4.281E-02    |
| 2053 | 4.832E+04            | 1.798E-04 | 4.072E-02    |
| 2054 | 4.832E+04            | 1.711E-04 | 3.874E-02    |
| 2055 | 4.832E+04            | 1.627E-04 | 3.685E-02    |
| 2056 | 4.832E+04            | 1.548E-04 | 3.505E-02    |
| 2057 | 4.832E+04            | 1.472E-04 | 3.334E-02    |
| 2058 | 4.832E+04            | 1.401E-04 | 3.172E-02    |
| 2059 | 4.832E+04            | 1.332E-04 | 3.017E-02    |
| 2060 | 4.832E+04            | 1.267E-04 | 2.870E-02    |
| 2061 | 4.832E+04            | 1.205E-04 | 2.730E-02    |
| 2062 | 4.832E+04            | 1.147E-04 | 2.597E-02    |
| 2063 | 4.832E+04            | 1.091E-04 | 2.470E-02    |
| 2064 | 4.832E+04            | 1.038E-04 | 2.350E-02    |
| 2065 | 4.832E+04            | 9.869E-05 | 2.235E-02    |
| 2066 | 4.832E+04            | 9.388E-05 | 2.126E-02    |
| 2067 | 4.832E+04            | 8.930E-05 | 2.022E-02    |
| 2068 | 4.832E+04            | 8.495E-05 | 1.924E-02    |
| 2069 | 4.832E+04            | 8.080E-05 | 1.830E-02    |
| 2070 | 4.832E+04            | 7.686E-05 | 1.741E-02    |
| 2071 | 4.832E+04            | 7.311E-05 | 1.656E-02    |
| 2072 | 4.832E+04            | 6.955E-05 | 1.575E-02    |
| 2073 | 4.832E+04            | 6.616E-05 | 1.498E-02    |
| 2074 | 4.832E+04            | 6.293E-05 | 1.425E-02    |
| 2075 | 4.832E+04            | 5.986E-05 | 1.356E-02    |
| 2076 | 4.832E+04            | 5.694E-05 | 1.289E-02    |
| 2077 | 4.832E+04            | 5.416E-05 | 1.227E-02    |
| 2078 | 4.832E+04            | 5.152E-05 | 1.167E-02    |
| 2079 | 4.832E+04            | 4.901E-05 | 1.110E-02    |
| 2080 | 4.832E+04            | 4.662E-05 | 1.056E-02    |
| 2081 | 4.832E+04            | 4.435E-05 | 1.004E-02    |
| 2082 | 4.832E+04            | 4.218E-05 | 9.553E-03    |
| 2083 | 4.832E+04            | 4.013E-05 | 9.087E-03    |
| 2084 | 4.832E+04            | 3.817E-05 | 8.643E-03    |
| 2085 | 4.832E+04            | 3.631E-05 | 8.222E-03    |
| 2086 | 4.832E+04            | 3.454E-05 | 7.821E-03    |
| 2087 | 4.832E+04            | 3.285E-05 | 7.440E-03    |
| 2088 | 4.832E+04            | 3.125E-05 | 7.077E-03    |

continued



Table D-30. Emission Rate of o-Xylene from Parcel 2 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 4.832E+04            | 2.973E-05 | 6.732E-03    |
| 2090 | 4.832E+04            | 2.828E-05 | 6.403E-03    |
| 2091 | 4.832E+04            | 2.690E-05 | 6.091E-03    |
| 2092 | 4.832E+04            | 2.559E-05 | 5.794E-03    |
| 2093 | 4.832E+04            | 2.434E-05 | 5.511E-03    |
| 2094 | 4.832E+04            | 2.315E-05 | 5.243E-03    |
| 2095 | 4.832E+04            | 2.202E-05 | 4.987E-03    |
| 2096 | 4.832E+04            | 2.095E-05 | 4.744E-03    |
| 2097 | 4.832E+04            | 1.993E-05 | 4.512E-03    |
| 2098 | 4.832E+04            | 1.895E-05 | 4.292E-03    |
| 2099 | 4.832E+04            | 1.803E-05 | 4.083E-03    |
| 2100 | 4.832E+04            | 1.715E-05 | 3.884E-03    |
| 2101 | 4.832E+04            | 1.631E-05 | 3.694E-03    |
| 2102 | 4.832E+04            | 1.552E-05 | 3.514E-03    |
| 2103 | 4.832E+04            | 1.476E-05 | 3.343E-03    |
| 2104 | 4.832E+04            | 1.404E-05 | 3.180E-03    |
| 2105 | 4.832E+04            | 1.336E-05 | 3.025E-03    |
| 2106 | 4.832E+04            | 1.271E-05 | 2.877E-03    |
| 2107 | 4.832E+04            | 1.209E-05 | 2.737E-03    |
| 2108 | 4.832E+04            | 1.150E-05 | 2.603E-03    |
| 2109 | 4.832E+04            | 1.094E-05 | 2.476E-03    |
| 2110 | 4.832E+04            | 1.040E-05 | 2.356E-03    |
| 2111 | 4.832E+04            | 9.895E-06 | 2.241E-03    |
| 2112 | 4.832E+04            | 9.412E-06 | 2.131E-03    |
| 2113 | 4.832E+04            | 8.953E-06 | 2.028E-03    |
| 2114 | 4.832E+04            | 8.517E-06 | 1.929E-03    |
| 2115 | 4.832E+04            | 8.101E-06 | 1.835E-03    |
| 2116 | 4.832E+04            | 7.706E-06 | 1.745E-03    |
| 2117 | 4.832E+04            | 7.330E-06 | 1.660E-03    |
| 2118 | 4.832E+04            | 6.973E-06 | 1.579E-03    |
| 2119 | 4.832E+04            | 6.633E-06 | 1.502E-03    |
| 2120 | 4.832E+04            | 6.309E-06 | 1.429E-03    |
| 2121 | 4.832E+04            | 6.002E-06 | 1.359E-03    |
| 2122 | 4.832E+04            | 5.709E-06 | 1.293E-03    |
| 2123 | 4.832E+04            | 5.430E-06 | 1.230E-03    |
| 2124 | 4.832E+04            | 5.166E-06 | 1.170E-03    |
| 2125 | 4.832E+04            | 4.914E-06 | 1.113E-03    |
| 2126 | 4.832E+04            | 4.674E-06 | 1.058E-03    |
| 2127 | 4.832E+04            | 4.446E-06 | 1.007E-03    |
| 2128 | 4.832E+04            | 4.229E-06 | 9.577E-04    |
| 2129 | 4.832E+04            | 4.023E-06 | 9.110E-04    |
| 2130 | 4.832E+04            | 3.827E-06 | 8.666E-04    |
| 2131 | 4.832E+04            | 3.640E-06 | 8.243E-04    |
| 2132 | 4.832E+04            | 3.463E-06 | 7.841E-04    |
| 2133 | 4.832E+04            | 3.294E-06 | 7.459E-04    |
| 2134 | 4.832E+04            | 3.133E-06 | 7.095E-04    |
| 2135 | 4.832E+04            | 2.980E-06 | 6.749E-04    |
| 2136 | 4.832E+04            | 2.835E-06 | 6.420E-04    |
| 2137 | 4.832E+04            | 2.697E-06 | 6.107E-04    |
| 2138 | 4.832E+04            | 2.565E-06 | 5.809E-04    |
| 2139 | 4.832E+04            | 2.440E-06 | 5.526E-04    |
| 2140 | 4.832E+04            | 2.321E-06 | 5.256E-04    |
| 2141 | 4.832E+04            | 2.208E-06 | 5.000E-04    |
| 2142 | 4.832E+04            | 2.100E-06 | 4.756E-04    |
| 2143 | 4.832E+04            | 1.998E-06 | 4.524E-04    |
| 2144 | 4.832E+04            | 1.900E-06 | 4.303E-04    |
| 2145 | 4.832E+04            | 1.808E-06 | 4.093E-04    |
| 2146 | 4.832E+04            | 1.719E-06 | 3.894E-04    |
| 2147 | 4.832E+04            | 1.636E-06 | 3.704E-04    |
| 2148 | 4.832E+04            | 1.556E-06 | 3.523E-04    |
| 2149 | 4.832E+04            | 1.480E-06 | 3.351E-04    |
| 2150 | 4.832E+04            | 1.408E-06 | 3.188E-04    |
| 2151 | 4.832E+04            | 1.339E-06 | 3.033E-04    |
| 2152 | 4.832E+04            | 1.274E-06 | 2.885E-04    |
| 2153 | 4.832E+04            | 1.212E-06 | 2.744E-04    |
| 2154 | 4.832E+04            | 1.153E-06 | 2.610E-04    |
| 2155 | 4.832E+04            | 1.096E-06 | 2.483E-04    |
| 2156 | 4.832E+04            | 1.043E-06 | 2.362E-04    |
| 2157 | 4.832E+04            | 9.921E-07 | 2.247E-04    |
| 2158 | 4.832E+04            | 9.437E-07 | 2.137E-04    |

continued

Table D-30. Emission Rate of o-Xylene from Parcel 2 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 4.832E+04            | 8.976E-07 | 2.033E-04    |
| 2160 | 4.832E+04            | 8.539E-07 | 1.934E-04    |
| 2161 | 4.832E+04            | 8.122E-07 | 1.839E-04    |
| 2162 | 4.832E+04            | 7.726E-07 | 1.750E-04    |
| 2163 | 4.832E+04            | 7.349E-07 | 1.664E-04    |
| 2164 | 4.832E+04            | 6.991E-07 | 1.583E-04    |
| 2165 | 4.832E+04            | 6.650E-07 | 1.506E-04    |
| 2166 | 4.832E+04            | 6.326E-07 | 1.432E-04    |
| 2167 | 4.832E+04            | 6.017E-07 | 1.363E-04    |
| 2168 | 4.832E+04            | 5.724E-07 | 1.296E-04    |
| 2169 | 4.832E+04            | 5.444E-07 | 1.233E-04    |
| 2170 | 4.832E+04            | 5.179E-07 | 1.173E-04    |
| 2171 | 4.832E+04            | 4.926E-07 | 1.116E-04    |
| 2172 | 4.832E+04            | 4.686E-07 | 1.061E-04    |
| 2173 | 4.832E+04            | 4.458E-07 | 1.009E-04    |
| 2174 | 4.832E+04            | 4.240E-07 | 9.602E-05    |
| 2175 | 4.832E+04            | 4.033E-07 | 9.134E-05    |
| 2176 | 4.832E+04            | 3.837E-07 | 8.688E-05    |
| 2177 | 4.832E+04            | 3.650E-07 | 8.265E-05    |
| 2178 | 4.832E+04            | 3.472E-07 | 7.861E-05    |
| 2179 | 4.832E+04            | 3.302E-07 | 7.478E-05    |
| 2180 | 4.832E+04            | 3.141E-07 | 7.113E-05    |
| 2181 | 4.832E+04            | 2.988E-07 | 6.766E-05    |
| 2182 | 4.832E+04            | 2.842E-07 | 6.436E-05    |
| 2183 | 4.832E+04            | 2.704E-07 | 6.123E-05    |
| 2184 | 4.832E+04            | 2.572E-07 | 5.824E-05    |
| 2185 | 4.832E+04            | 2.446E-07 | 5.540E-05    |
| 2186 | 4.832E+04            | 2.327E-07 | 5.270E-05    |
| 2187 | 4.832E+04            | 2.214E-07 | 5.013E-05    |
| 2188 | 4.832E+04            | 2.106E-07 | 4.768E-05    |
| 2189 | 4.832E+04            | 2.003E-07 | 4.536E-05    |
| 2190 | 4.832E+04            | 1.905E-07 | 4.314E-05    |
| 2191 | 4.832E+04            | 1.812E-07 | 4.104E-05    |
| 2192 | 4.832E+04            | 1.724E-07 | 3.904E-05    |
| 2193 | 4.832E+04            | 1.640E-07 | 3.714E-05    |
| 2194 | 4.832E+04            | 1.560E-07 | 3.532E-05    |
| 2195 | 4.832E+04            | 1.484E-07 | 3.360E-05    |
| 2196 | 4.832E+04            | 1.411E-07 | 3.196E-05    |
| 2197 | 4.832E+04            | 1.343E-07 | 3.040E-05    |
| 2198 | 4.832E+04            | 1.277E-07 | 2.892E-05    |
| 2199 | 4.832E+04            | 1.215E-07 | 2.751E-05    |
| 2200 | 4.832E+04            | 1.156E-07 | 2.617E-05    |
| 2201 | 4.832E+04            | 1.099E-07 | 2.489E-05    |
| 2202 | 4.832E+04            | 1.046E-07 | 2.368E-05    |
| 2203 | 4.832E+04            | 9.946E-08 | 2.252E-05    |

Table D-31. Emission Rate of Methane from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA3.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
=====
                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974   Current Year : 2004   Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
          Current Year to Closure Year : 0.00 Mg/year
=====
                          Model Results
=====
Year      Refuse In Place (Mg)      Methane Emission Rate
                                (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      2.990E+01      4.481E+04
1976      1.054E+04      5.833E+01      8.744E+04
1977      1.582E+04      8.538E+01      1.280E+05
1978      2.109E+04      1.111E+02      1.665E+05
1979      2.636E+04      1.356E+02      2.032E+05
1980      3.163E+04      1.589E+02      2.381E+05
1981      3.690E+04      1.810E+02      2.713E+05
1982      4.217E+04      2.021E+02      3.029E+05
1983      4.745E+04      2.221E+02      3.329E+05
1984      5.272E+04      2.412E+02      3.615E+05
1985      5.272E+04      2.294E+02      3.439E+05
1986      5.272E+04      2.182E+02      3.271E+05
1987      5.272E+04      2.076E+02      3.112E+05
1988      5.272E+04      1.975E+02      2.960E+05
1989      5.272E+04      1.878E+02      2.816E+05
1990      5.272E+04      1.787E+02      2.678E+05
1991      5.272E+04      1.700E+02      2.548E+05
1992      5.272E+04      1.617E+02      2.423E+05
1993      5.272E+04      1.538E+02      2.305E+05
1994      5.272E+04      1.463E+02      2.193E+05
1995      5.272E+04      1.392E+02      2.086E+05
1996      5.272E+04      1.324E+02      1.984E+05
1997      5.272E+04      1.259E+02      1.887E+05
1998      5.272E+04      1.198E+02      1.795E+05
1999      5.272E+04      1.139E+02      1.708E+05
2000      5.272E+04      1.084E+02      1.624E+05
2001      5.272E+04      1.031E+02      1.545E+05
2002      5.272E+04      9.806E+01      1.470E+05
2003      5.272E+04      9.328E+01      1.398E+05
2004      5.272E+04      8.873E+01      1.330E+05
2005      5.272E+04      8.440E+01      1.265E+05
2006      5.272E+04      8.028E+01      1.203E+05
2007      5.272E+04      7.637E+01      1.145E+05
2008      5.272E+04      7.264E+01      1.089E+05
2009      5.272E+04      6.910E+01      1.036E+05
2010      5.272E+04      6.573E+01      9.853E+04
2011      5.272E+04      6.253E+01      9.372E+04
2012      5.272E+04      5.948E+01      8.915E+04
2013      5.272E+04      5.658E+01      8.480E+04
2014      5.272E+04      5.382E+01      8.067E+04
2015      5.272E+04      5.119E+01      7.673E+04
2016      5.272E+04      4.869E+01      7.299E+04
2017      5.272E+04      4.632E+01      6.943E+04
2018      5.272E+04      4.406E+01      6.604E+04
2019      5.272E+04      4.191E+01      6.282E+04
2020      5.272E+04      3.987E+01      5.976E+04
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continued

Table D-31. Emission Rate of Methane from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2021 | 5.272E+04            | 3.792E+01 | 5.684E+04    |
| 2022 | 5.272E+04            | 3.607E+01 | 5.407E+04    |
| 2023 | 5.272E+04            | 3.431E+01 | 5.143E+04    |
| 2024 | 5.272E+04            | 3.264E+01 | 4.893E+04    |
| 2025 | 5.272E+04            | 3.105E+01 | 4.654E+04    |
| 2026 | 5.272E+04            | 2.953E+01 | 4.427E+04    |
| 2027 | 5.272E+04            | 2.809E+01 | 4.211E+04    |
| 2028 | 5.272E+04            | 2.672E+01 | 4.006E+04    |
| 2029 | 5.272E+04            | 2.542E+01 | 3.810E+04    |
| 2030 | 5.272E+04            | 2.418E+01 | 3.625E+04    |
| 2031 | 5.272E+04            | 2.300E+01 | 3.448E+04    |
| 2032 | 5.272E+04            | 2.188E+01 | 3.280E+04    |
| 2033 | 5.272E+04            | 2.081E+01 | 3.120E+04    |
| 2034 | 5.272E+04            | 1.980E+01 | 2.968E+04    |
| 2035 | 5.272E+04            | 1.883E+01 | 2.823E+04    |
| 2036 | 5.272E+04            | 1.791E+01 | 2.685E+04    |
| 2037 | 5.272E+04            | 1.704E+01 | 2.554E+04    |
| 2038 | 5.272E+04            | 1.621E+01 | 2.430E+04    |
| 2039 | 5.272E+04            | 1.542E+01 | 2.311E+04    |
| 2040 | 5.272E+04            | 1.467E+01 | 2.198E+04    |
| 2041 | 5.272E+04            | 1.395E+01 | 2.091E+04    |
| 2042 | 5.272E+04            | 1.327E+01 | 1.989E+04    |
| 2043 | 5.272E+04            | 1.262E+01 | 1.892E+04    |
| 2044 | 5.272E+04            | 1.201E+01 | 1.800E+04    |
| 2045 | 5.272E+04            | 1.142E+01 | 1.712E+04    |
| 2046 | 5.272E+04            | 1.087E+01 | 1.629E+04    |
| 2047 | 5.272E+04            | 1.034E+01 | 1.549E+04    |
| 2048 | 5.272E+04            | 9.831E+00 | 1.474E+04    |
| 2049 | 5.272E+04            | 9.352E+00 | 1.402E+04    |
| 2050 | 5.272E+04            | 8.896E+00 | 1.333E+04    |
| 2051 | 5.272E+04            | 8.462E+00 | 1.268E+04    |
| 2052 | 5.272E+04            | 8.049E+00 | 1.207E+04    |
| 2053 | 5.272E+04            | 7.657E+00 | 1.148E+04    |
| 2054 | 5.272E+04            | 7.283E+00 | 1.092E+04    |
| 2055 | 5.272E+04            | 6.928E+00 | 1.038E+04    |
| 2056 | 5.272E+04            | 6.590E+00 | 9.878E+03    |
| 2057 | 5.272E+04            | 6.269E+00 | 9.396E+03    |
| 2058 | 5.272E+04            | 5.963E+00 | 8.938E+03    |
| 2059 | 5.272E+04            | 5.672E+00 | 8.502E+03    |
| 2060 | 5.272E+04            | 5.396E+00 | 8.087E+03    |
| 2061 | 5.272E+04            | 5.132E+00 | 7.693E+03    |
| 2062 | 5.272E+04            | 4.882E+00 | 7.318E+03    |
| 2063 | 5.272E+04            | 4.644E+00 | 6.961E+03    |
| 2064 | 5.272E+04            | 4.417E+00 | 6.621E+03    |
| 2065 | 5.272E+04            | 4.202E+00 | 6.299E+03    |
| 2066 | 5.272E+04            | 3.997E+00 | 5.991E+03    |
| 2067 | 5.272E+04            | 3.802E+00 | 5.699E+03    |
| 2068 | 5.272E+04            | 3.617E+00 | 5.421E+03    |
| 2069 | 5.272E+04            | 3.440E+00 | 5.157E+03    |
| 2070 | 5.272E+04            | 3.273E+00 | 4.905E+03    |
| 2071 | 5.272E+04            | 3.113E+00 | 4.666E+03    |
| 2072 | 5.272E+04            | 2.961E+00 | 4.438E+03    |
| 2073 | 5.272E+04            | 2.817E+00 | 4.222E+03    |
| 2074 | 5.272E+04            | 2.679E+00 | 4.016E+03    |
| 2075 | 5.272E+04            | 2.549E+00 | 3.820E+03    |
| 2076 | 5.272E+04            | 2.424E+00 | 3.634E+03    |
| 2077 | 5.272E+04            | 2.306E+00 | 3.457E+03    |
| 2078 | 5.272E+04            | 2.194E+00 | 3.288E+03    |
| 2079 | 5.272E+04            | 2.087E+00 | 3.128E+03    |
| 2080 | 5.272E+04            | 1.985E+00 | 2.975E+03    |
| 2081 | 5.272E+04            | 1.888E+00 | 2.830E+03    |
| 2082 | 5.272E+04            | 1.796E+00 | 2.692E+03    |
| 2083 | 5.272E+04            | 1.708E+00 | 2.561E+03    |
| 2084 | 5.272E+04            | 1.625E+00 | 2.436E+03    |
| 2085 | 5.272E+04            | 1.546E+00 | 2.317E+03    |
| 2086 | 5.272E+04            | 1.470E+00 | 2.204E+03    |
| 2087 | 5.272E+04            | 1.399E+00 | 2.097E+03    |
| 2088 | 5.272E+04            | 1.331E+00 | 1.994E+03    |
| 2089 | 5.272E+04            | 1.266E+00 | 1.897E+03    |
| 2090 | 5.272E+04            | 1.204E+00 | 1.805E+03    |

continued

Table D-31. Emission Rate of Methane from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2091 | 5.272E+04            | 1.145E+00 | 1.717E+03    |
| 2092 | 5.272E+04            | 1.089E+00 | 1.633E+03    |
| 2093 | 5.272E+04            | 1.036E+00 | 1.553E+03    |
| 2094 | 5.272E+04            | 9.857E-01 | 1.477E+03    |
| 2095 | 5.272E+04            | 9.376E-01 | 1.405E+03    |
| 2096 | 5.272E+04            | 8.919E-01 | 1.337E+03    |
| 2097 | 5.272E+04            | 8.484E-01 | 1.272E+03    |
| 2098 | 5.272E+04            | 8.070E-01 | 1.210E+03    |
| 2099 | 5.272E+04            | 7.676E-01 | 1.151E+03    |
| 2100 | 5.272E+04            | 7.302E-01 | 1.095E+03    |
| 2101 | 5.272E+04            | 6.946E-01 | 1.041E+03    |
| 2102 | 5.272E+04            | 6.607E-01 | 9.904E+02    |
| 2103 | 5.272E+04            | 6.285E-01 | 9.421E+02    |
| 2104 | 5.272E+04            | 5.978E-01 | 8.961E+02    |
| 2105 | 5.272E+04            | 5.687E-01 | 8.524E+02    |
| 2106 | 5.272E+04            | 5.409E-01 | 8.108E+02    |
| 2107 | 5.272E+04            | 5.146E-01 | 7.713E+02    |
| 2108 | 5.272E+04            | 4.895E-01 | 7.337E+02    |
| 2109 | 5.272E+04            | 4.656E-01 | 6.979E+02    |
| 2110 | 5.272E+04            | 4.429E-01 | 6.639E+02    |
| 2111 | 5.272E+04            | 4.213E-01 | 6.315E+02    |
| 2112 | 5.272E+04            | 4.007E-01 | 6.007E+02    |
| 2113 | 5.272E+04            | 3.812E-01 | 5.714E+02    |
| 2114 | 5.272E+04            | 3.626E-01 | 5.435E+02    |
| 2115 | 5.272E+04            | 3.449E-01 | 5.170E+02    |
| 2116 | 5.272E+04            | 3.281E-01 | 4.918E+02    |
| 2117 | 5.272E+04            | 3.121E-01 | 4.678E+02    |
| 2118 | 5.272E+04            | 2.969E-01 | 4.450E+02    |
| 2119 | 5.272E+04            | 2.824E-01 | 4.233E+02    |
| 2120 | 5.272E+04            | 2.686E-01 | 4.027E+02    |
| 2121 | 5.272E+04            | 2.555E-01 | 3.830E+02    |
| 2122 | 5.272E+04            | 2.431E-01 | 3.643E+02    |
| 2123 | 5.272E+04            | 2.312E-01 | 3.466E+02    |
| 2124 | 5.272E+04            | 2.199E-01 | 3.297E+02    |
| 2125 | 5.272E+04            | 2.092E-01 | 3.136E+02    |
| 2126 | 5.272E+04            | 1.990E-01 | 2.983E+02    |
| 2127 | 5.272E+04            | 1.893E-01 | 2.837E+02    |
| 2128 | 5.272E+04            | 1.801E-01 | 2.699E+02    |
| 2129 | 5.272E+04            | 1.713E-01 | 2.567E+02    |
| 2130 | 5.272E+04            | 1.629E-01 | 2.442E+02    |
| 2131 | 5.272E+04            | 1.550E-01 | 2.323E+02    |
| 2132 | 5.272E+04            | 1.474E-01 | 2.210E+02    |
| 2133 | 5.272E+04            | 1.402E-01 | 2.102E+02    |
| 2134 | 5.272E+04            | 1.334E-01 | 2.000E+02    |
| 2135 | 5.272E+04            | 1.269E-01 | 1.902E+02    |
| 2136 | 5.272E+04            | 1.207E-01 | 1.809E+02    |
| 2137 | 5.272E+04            | 1.148E-01 | 1.721E+02    |
| 2138 | 5.272E+04            | 1.092E-01 | 1.637E+02    |
| 2139 | 5.272E+04            | 1.039E-01 | 1.557E+02    |
| 2140 | 5.272E+04            | 9.882E-02 | 1.481E+02    |
| 2141 | 5.272E+04            | 9.400E-02 | 1.409E+02    |
| 2142 | 5.272E+04            | 8.942E-02 | 1.340E+02    |
| 2143 | 5.272E+04            | 8.506E-02 | 1.275E+02    |
| 2144 | 5.272E+04            | 8.091E-02 | 1.213E+02    |
| 2145 | 5.272E+04            | 7.696E-02 | 1.154E+02    |
| 2146 | 5.272E+04            | 7.321E-02 | 1.097E+02    |
| 2147 | 5.272E+04            | 6.964E-02 | 1.044E+02    |
| 2148 | 5.272E+04            | 6.624E-02 | 9.929E+01    |
| 2149 | 5.272E+04            | 6.301E-02 | 9.445E+01    |
| 2150 | 5.272E+04            | 5.994E-02 | 8.984E+01    |
| 2151 | 5.272E+04            | 5.702E-02 | 8.546E+01    |
| 2152 | 5.272E+04            | 5.423E-02 | 8.129E+01    |
| 2153 | 5.272E+04            | 5.159E-02 | 7.733E+01    |
| 2154 | 5.272E+04            | 4.907E-02 | 7.356E+01    |
| 2155 | 5.272E+04            | 4.668E-02 | 6.997E+01    |
| 2156 | 5.272E+04            | 4.440E-02 | 6.656E+01    |
| 2157 | 5.272E+04            | 4.224E-02 | 6.331E+01    |
| 2158 | 5.272E+04            | 4.018E-02 | 6.022E+01    |
| 2159 | 5.272E+04            | 3.822E-02 | 5.729E+01    |
| 2160 | 5.272E+04            | 3.635E-02 | 5.449E+01    |

continued

Table D-31. Emission Rate of Methane from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2161 | 5.272E+04            | 3.458E-02 | 5.184E+01    |
| 2162 | 5.272E+04            | 3.290E-02 | 4.931E+01    |
| 2163 | 5.272E+04            | 3.129E-02 | 4.690E+01    |
| 2164 | 5.272E+04            | 2.976E-02 | 4.461E+01    |
| 2165 | 5.272E+04            | 2.831E-02 | 4.244E+01    |
| 2166 | 5.272E+04            | 2.693E-02 | 4.037E+01    |
| 2167 | 5.272E+04            | 2.562E-02 | 3.840E+01    |
| 2168 | 5.272E+04            | 2.437E-02 | 3.653E+01    |
| 2169 | 5.272E+04            | 2.318E-02 | 3.475E+01    |
| 2170 | 5.272E+04            | 2.205E-02 | 3.305E+01    |
| 2171 | 5.272E+04            | 2.097E-02 | 3.144E+01    |
| 2172 | 5.272E+04            | 1.995E-02 | 2.991E+01    |
| 2173 | 5.272E+04            | 1.898E-02 | 2.845E+01    |
| 2174 | 5.272E+04            | 1.805E-02 | 2.706E+01    |
| 2175 | 5.272E+04            | 1.717E-02 | 2.574E+01    |
| 2176 | 5.272E+04            | 1.634E-02 | 2.449E+01    |
| 2177 | 5.272E+04            | 1.554E-02 | 2.329E+01    |
| 2178 | 5.272E+04            | 1.478E-02 | 2.216E+01    |
| 2179 | 5.272E+04            | 1.406E-02 | 2.107E+01    |
| 2180 | 5.272E+04            | 1.337E-02 | 2.005E+01    |
| 2181 | 5.272E+04            | 1.272E-02 | 1.907E+01    |
| 2182 | 5.272E+04            | 1.210E-02 | 1.814E+01    |
| 2183 | 5.272E+04            | 1.151E-02 | 1.725E+01    |
| 2184 | 5.272E+04            | 1.095E-02 | 1.641E+01    |
| 2185 | 5.272E+04            | 1.042E-02 | 1.561E+01    |
| 2186 | 5.272E+04            | 9.908E-03 | 1.485E+01    |
| 2187 | 5.272E+04            | 9.425E-03 | 1.413E+01    |
| 2188 | 5.272E+04            | 8.965E-03 | 1.344E+01    |
| 2189 | 5.272E+04            | 8.528E-03 | 1.278E+01    |
| 2190 | 5.272E+04            | 8.112E-03 | 1.216E+01    |
| 2191 | 5.272E+04            | 7.716E-03 | 1.157E+01    |
| 2192 | 5.272E+04            | 7.340E-03 | 1.100E+01    |
| 2193 | 5.272E+04            | 6.982E-03 | 1.047E+01    |
| 2194 | 5.272E+04            | 6.641E-03 | 9.955E+00    |
| 2195 | 5.272E+04            | 6.318E-03 | 9.469E+00    |
| 2196 | 5.272E+04            | 6.009E-03 | 9.008E+00    |
| 2197 | 5.272E+04            | 5.716E-03 | 8.568E+00    |
| 2198 | 5.272E+04            | 5.438E-03 | 8.150E+00    |
| 2199 | 5.272E+04            | 5.172E-03 | 7.753E+00    |
| 2200 | 5.272E+04            | 4.920E-03 | 7.375E+00    |
| 2201 | 5.272E+04            | 4.680E-03 | 7.015E+00    |
| 2202 | 5.272E+04            | 4.452E-03 | 6.673E+00    |
| 2203 | 5.272E+04            | 4.235E-03 | 6.348E+00    |

Table D-32. Emission Rate of Carbon Dioxide from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177-2.000\030177-1.003\BUSHVA-1\STRATA3.PRM

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=====
                        Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume

=====
                        Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974   Current Year : 2004   Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year

=====
                        Model Results
=====
Year      Refuse In Place (Mg)      Carbon Dioxide Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      4.301E+01      2.350E+04
1976      1.054E+04      8.393E+01      4.585E+04
1977      1.582E+04      1.228E+02      6.711E+04
1978      2.109E+04      1.599E+02      8.734E+04
1979      2.636E+04      1.951E+02      1.066E+05
1980      3.163E+04      2.286E+02      1.249E+05
1981      3.690E+04      2.605E+02      1.423E+05
1982      4.217E+04      2.908E+02      1.588E+05
1983      4.745E+04      3.196E+02      1.746E+05
1984      5.272E+04      3.470E+02      1.896E+05
1985      5.272E+04      3.301E+02      1.803E+05
1986      5.272E+04      3.140E+02      1.715E+05
1987      5.272E+04      2.987E+02      1.632E+05
1988      5.272E+04      2.841E+02      1.552E+05
1989      5.272E+04      2.703E+02      1.476E+05
1990      5.272E+04      2.571E+02      1.404E+05
1991      5.272E+04      2.445E+02      1.336E+05
1992      5.272E+04      2.326E+02      1.271E+05
1993      5.272E+04      2.213E+02      1.209E+05
1994      5.272E+04      2.105E+02      1.150E+05
1995      5.272E+04      2.002E+02      1.094E+05
1996      5.272E+04      1.904E+02      1.040E+05
1997      5.272E+04      1.812E+02      9.897E+04
1998      5.272E+04      1.723E+02      9.414E+04
1999      5.272E+04      1.639E+02      8.955E+04
2000      5.272E+04      1.559E+02      8.518E+04
2001      5.272E+04      1.483E+02      8.103E+04
2002      5.272E+04      1.411E+02      7.708E+04
2003      5.272E+04      1.342E+02      7.332E+04
2004      5.272E+04      1.277E+02      6.974E+04
2005      5.272E+04      1.214E+02      6.634E+04
2006      5.272E+04      1.155E+02      6.310E+04
2007      5.272E+04      1.099E+02      6.003E+04
2008      5.272E+04      1.045E+02      5.710E+04
2009      5.272E+04      9.942E+01      5.431E+04
2010      5.272E+04      9.457E+01      5.167E+04
2011      5.272E+04      8.996E+01      4.915E+04
2012      5.272E+04      8.557E+01      4.675E+04
2013      5.272E+04      8.140E+01      4.447E+04
2014      5.272E+04      7.743E+01      4.230E+04
2015      5.272E+04      7.365E+01      4.024E+04
2016      5.272E+04      7.006E+01      3.827E+04
2017      5.272E+04      6.665E+01      3.641E+04
2018      5.272E+04      6.339E+01      3.463E+04
2019      5.272E+04      6.030E+01      3.294E+04
2020      5.272E+04      5.736E+01      3.134E+04

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continued

Table D-32. Emission Rate of Carbon Dioxide from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2021 | 5.272E+04            | 5.456E+01 | 2.981E+04    |
| 2022 | 5.272E+04            | 5.190E+01 | 2.835E+04    |
| 2023 | 5.272E+04            | 4.937E+01 | 2.697E+04    |
| 2024 | 5.272E+04            | 4.696E+01 | 2.566E+04    |
| 2025 | 5.272E+04            | 4.467E+01 | 2.441E+04    |
| 2026 | 5.272E+04            | 4.249E+01 | 2.321E+04    |
| 2027 | 5.272E+04            | 4.042E+01 | 2.208E+04    |
| 2028 | 5.272E+04            | 3.845E+01 | 2.101E+04    |
| 2029 | 5.272E+04            | 3.658E+01 | 1.998E+04    |
| 2030 | 5.272E+04            | 3.479E+01 | 1.901E+04    |
| 2031 | 5.272E+04            | 3.310E+01 | 1.808E+04    |
| 2032 | 5.272E+04            | 3.148E+01 | 1.720E+04    |
| 2033 | 5.272E+04            | 2.995E+01 | 1.636E+04    |
| 2034 | 5.272E+04            | 2.849E+01 | 1.556E+04    |
| 2035 | 5.272E+04            | 2.710E+01 | 1.480E+04    |
| 2036 | 5.272E+04            | 2.577E+01 | 1.408E+04    |
| 2037 | 5.272E+04            | 2.452E+01 | 1.339E+04    |
| 2038 | 5.272E+04            | 2.332E+01 | 1.274E+04    |
| 2039 | 5.272E+04            | 2.218E+01 | 1.212E+04    |
| 2040 | 5.272E+04            | 2.110E+01 | 1.153E+04    |
| 2041 | 5.272E+04            | 2.007E+01 | 1.097E+04    |
| 2042 | 5.272E+04            | 1.909E+01 | 1.043E+04    |
| 2043 | 5.272E+04            | 1.816E+01 | 9.922E+03    |
| 2044 | 5.272E+04            | 1.728E+01 | 9.438E+03    |
| 2045 | 5.272E+04            | 1.643E+01 | 8.978E+03    |
| 2046 | 5.272E+04            | 1.563E+01 | 8.540E+03    |
| 2047 | 5.272E+04            | 1.487E+01 | 8.124E+03    |
| 2048 | 5.272E+04            | 1.415E+01 | 7.728E+03    |
| 2049 | 5.272E+04            | 1.346E+01 | 7.351E+03    |
| 2050 | 5.272E+04            | 1.280E+01 | 6.992E+03    |
| 2051 | 5.272E+04            | 1.217E+01 | 6.651E+03    |
| 2052 | 5.272E+04            | 1.158E+01 | 6.327E+03    |
| 2053 | 5.272E+04            | 1.102E+01 | 6.018E+03    |
| 2054 | 5.272E+04            | 1.048E+01 | 5.725E+03    |
| 2055 | 5.272E+04            | 9.968E+00 | 5.446E+03    |
| 2056 | 5.272E+04            | 9.482E+00 | 5.180E+03    |
| 2057 | 5.272E+04            | 9.019E+00 | 4.927E+03    |
| 2058 | 5.272E+04            | 8.580E+00 | 4.687E+03    |
| 2059 | 5.272E+04            | 8.161E+00 | 4.458E+03    |
| 2060 | 5.272E+04            | 7.763E+00 | 4.241E+03    |
| 2061 | 5.272E+04            | 7.384E+00 | 4.034E+03    |
| 2062 | 5.272E+04            | 7.024E+00 | 3.837E+03    |
| 2063 | 5.272E+04            | 6.682E+00 | 3.650E+03    |
| 2064 | 5.272E+04            | 6.356E+00 | 3.472E+03    |
| 2065 | 5.272E+04            | 6.046E+00 | 3.303E+03    |
| 2066 | 5.272E+04            | 5.751E+00 | 3.142E+03    |
| 2067 | 5.272E+04            | 5.471E+00 | 2.989E+03    |
| 2068 | 5.272E+04            | 5.204E+00 | 2.843E+03    |
| 2069 | 5.272E+04            | 4.950E+00 | 2.704E+03    |
| 2070 | 5.272E+04            | 4.709E+00 | 2.572E+03    |
| 2071 | 5.272E+04            | 4.479E+00 | 2.447E+03    |
| 2072 | 5.272E+04            | 4.260E+00 | 2.327E+03    |
| 2073 | 5.272E+04            | 4.053E+00 | 2.214E+03    |
| 2074 | 5.272E+04            | 3.855E+00 | 2.106E+03    |
| 2075 | 5.272E+04            | 3.667E+00 | 2.003E+03    |
| 2076 | 5.272E+04            | 3.488E+00 | 1.906E+03    |
| 2077 | 5.272E+04            | 3.318E+00 | 1.813E+03    |
| 2078 | 5.272E+04            | 3.156E+00 | 1.724E+03    |
| 2079 | 5.272E+04            | 3.002E+00 | 1.640E+03    |
| 2080 | 5.272E+04            | 2.856E+00 | 1.560E+03    |
| 2081 | 5.272E+04            | 2.717E+00 | 1.484E+03    |
| 2082 | 5.272E+04            | 2.584E+00 | 1.412E+03    |
| 2083 | 5.272E+04            | 2.458E+00 | 1.343E+03    |
| 2084 | 5.272E+04            | 2.338E+00 | 1.277E+03    |
| 2085 | 5.272E+04            | 2.224E+00 | 1.215E+03    |
| 2086 | 5.272E+04            | 2.116E+00 | 1.156E+03    |
| 2087 | 5.272E+04            | 2.013E+00 | 1.099E+03    |
| 2088 | 5.272E+04            | 1.914E+00 | 1.046E+03    |
| 2089 | 5.272E+04            | 1.821E+00 | 9.948E+02    |
| 2090 | 5.272E+04            | 1.732E+00 | 9.463E+02    |

continued



Table D-32. Emission Rate of Carbon Dioxide from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2091 | 5.272E+04            | 1.648E+00 | 9.001E+02    |
| 2092 | 5.272E+04            | 1.567E+00 | 8.562E+02    |
| 2093 | 5.272E+04            | 1.491E+00 | 8.145E+02    |
| 2094 | 5.272E+04            | 1.418E+00 | 7.748E+02    |
| 2095 | 5.272E+04            | 1.349E+00 | 7.370E+02    |
| 2096 | 5.272E+04            | 1.283E+00 | 7.010E+02    |
| 2097 | 5.272E+04            | 1.221E+00 | 6.668E+02    |
| 2098 | 5.272E+04            | 1.161E+00 | 6.343E+02    |
| 2099 | 5.272E+04            | 1.104E+00 | 6.034E+02    |
| 2100 | 5.272E+04            | 1.051E+00 | 5.740E+02    |
| 2101 | 5.272E+04            | 9.994E-01 | 5.460E+02    |
| 2102 | 5.272E+04            | 9.506E-01 | 5.193E+02    |
| 2103 | 5.272E+04            | 9.043E-01 | 4.940E+02    |
| 2104 | 5.272E+04            | 8.602E-01 | 4.699E+02    |
| 2105 | 5.272E+04            | 8.182E-01 | 4.470E+02    |
| 2106 | 5.272E+04            | 7.783E-01 | 4.252E+02    |
| 2107 | 5.272E+04            | 7.404E-01 | 4.045E+02    |
| 2108 | 5.272E+04            | 7.043E-01 | 3.847E+02    |
| 2109 | 5.272E+04            | 6.699E-01 | 3.660E+02    |
| 2110 | 5.272E+04            | 6.372E-01 | 3.481E+02    |
| 2111 | 5.272E+04            | 6.062E-01 | 3.311E+02    |
| 2112 | 5.272E+04            | 5.766E-01 | 3.150E+02    |
| 2113 | 5.272E+04            | 5.485E-01 | 2.996E+02    |
| 2114 | 5.272E+04            | 5.217E-01 | 2.850E+02    |
| 2115 | 5.272E+04            | 4.963E-01 | 2.711E+02    |
| 2116 | 5.272E+04            | 4.721E-01 | 2.579E+02    |
| 2117 | 5.272E+04            | 4.491E-01 | 2.453E+02    |
| 2118 | 5.272E+04            | 4.272E-01 | 2.334E+02    |
| 2119 | 5.272E+04            | 4.063E-01 | 2.220E+02    |
| 2120 | 5.272E+04            | 3.865E-01 | 2.111E+02    |
| 2121 | 5.272E+04            | 3.677E-01 | 2.008E+02    |
| 2122 | 5.272E+04            | 3.497E-01 | 1.911E+02    |
| 2123 | 5.272E+04            | 3.327E-01 | 1.817E+02    |
| 2124 | 5.272E+04            | 3.164E-01 | 1.729E+02    |
| 2125 | 5.272E+04            | 3.010E-01 | 1.644E+02    |
| 2126 | 5.272E+04            | 2.863E-01 | 1.564E+02    |
| 2127 | 5.272E+04            | 2.724E-01 | 1.488E+02    |
| 2128 | 5.272E+04            | 2.591E-01 | 1.415E+02    |
| 2129 | 5.272E+04            | 2.464E-01 | 1.346E+02    |
| 2130 | 5.272E+04            | 2.344E-01 | 1.281E+02    |
| 2131 | 5.272E+04            | 2.230E-01 | 1.218E+02    |
| 2132 | 5.272E+04            | 2.121E-01 | 1.159E+02    |
| 2133 | 5.272E+04            | 2.018E-01 | 1.102E+02    |
| 2134 | 5.272E+04            | 1.919E-01 | 1.049E+02    |
| 2135 | 5.272E+04            | 1.826E-01 | 9.974E+01    |
| 2136 | 5.272E+04            | 1.737E-01 | 9.487E+01    |
| 2137 | 5.272E+04            | 1.652E-01 | 9.025E+01    |
| 2138 | 5.272E+04            | 1.571E-01 | 8.585E+01    |
| 2139 | 5.272E+04            | 1.495E-01 | 8.166E+01    |
| 2140 | 5.272E+04            | 1.422E-01 | 7.768E+01    |
| 2141 | 5.272E+04            | 1.353E-01 | 7.389E+01    |
| 2142 | 5.272E+04            | 1.287E-01 | 7.028E+01    |
| 2143 | 5.272E+04            | 1.224E-01 | 6.686E+01    |
| 2144 | 5.272E+04            | 1.164E-01 | 6.360E+01    |
| 2145 | 5.272E+04            | 1.107E-01 | 6.049E+01    |
| 2146 | 5.272E+04            | 1.053E-01 | 5.754E+01    |
| 2147 | 5.272E+04            | 1.002E-01 | 5.474E+01    |
| 2148 | 5.272E+04            | 9.531E-02 | 5.207E+01    |
| 2149 | 5.272E+04            | 9.066E-02 | 4.953E+01    |
| 2150 | 5.272E+04            | 8.624E-02 | 4.711E+01    |
| 2151 | 5.272E+04            | 8.203E-02 | 4.482E+01    |
| 2152 | 5.272E+04            | 7.803E-02 | 4.263E+01    |
| 2153 | 5.272E+04            | 7.423E-02 | 4.055E+01    |
| 2154 | 5.272E+04            | 7.061E-02 | 3.857E+01    |
| 2155 | 5.272E+04            | 6.716E-02 | 3.669E+01    |
| 2156 | 5.272E+04            | 6.389E-02 | 3.490E+01    |
| 2157 | 5.272E+04            | 6.077E-02 | 3.320E+01    |
| 2158 | 5.272E+04            | 5.781E-02 | 3.158E+01    |
| 2159 | 5.272E+04            | 5.499E-02 | 3.004E+01    |
| 2160 | 5.272E+04            | 5.231E-02 | 2.858E+01    |

continued

Table D-32. Emission Rate of Carbon Dioxide from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2161 | 5.272E+04            | 4.976E-02 | 2.718E+01    |
| 2162 | 5.272E+04            | 4.733E-02 | 2.586E+01    |
| 2163 | 5.272E+04            | 4.502E-02 | 2.460E+01    |
| 2164 | 5.272E+04            | 4.283E-02 | 2.340E+01    |
| 2165 | 5.272E+04            | 4.074E-02 | 2.225E+01    |
| 2166 | 5.272E+04            | 3.875E-02 | 2.117E+01    |
| 2167 | 5.272E+04            | 3.686E-02 | 2.014E+01    |
| 2168 | 5.272E+04            | 3.506E-02 | 1.915E+01    |
| 2169 | 5.272E+04            | 3.335E-02 | 1.822E+01    |
| 2170 | 5.272E+04            | 3.173E-02 | 1.733E+01    |
| 2171 | 5.272E+04            | 3.018E-02 | 1.649E+01    |
| 2172 | 5.272E+04            | 2.871E-02 | 1.568E+01    |
| 2173 | 5.272E+04            | 2.731E-02 | 1.492E+01    |
| 2174 | 5.272E+04            | 2.598E-02 | 1.419E+01    |
| 2175 | 5.272E+04            | 2.471E-02 | 1.350E+01    |
| 2176 | 5.272E+04            | 2.350E-02 | 1.284E+01    |
| 2177 | 5.272E+04            | 2.236E-02 | 1.221E+01    |
| 2178 | 5.272E+04            | 2.127E-02 | 1.162E+01    |
| 2179 | 5.272E+04            | 2.023E-02 | 1.105E+01    |
| 2180 | 5.272E+04            | 1.924E-02 | 1.051E+01    |
| 2181 | 5.272E+04            | 1.830E-02 | 1.000E+01    |
| 2182 | 5.272E+04            | 1.741E-02 | 9.512E+00    |
| 2183 | 5.272E+04            | 1.656E-02 | 9.048E+00    |
| 2184 | 5.272E+04            | 1.575E-02 | 8.607E+00    |
| 2185 | 5.272E+04            | 1.499E-02 | 8.187E+00    |
| 2186 | 5.272E+04            | 1.426E-02 | 7.788E+00    |
| 2187 | 5.272E+04            | 1.356E-02 | 7.408E+00    |
| 2188 | 5.272E+04            | 1.290E-02 | 7.047E+00    |
| 2189 | 5.272E+04            | 1.227E-02 | 6.703E+00    |
| 2190 | 5.272E+04            | 1.167E-02 | 6.376E+00    |
| 2191 | 5.272E+04            | 1.110E-02 | 6.065E+00    |
| 2192 | 5.272E+04            | 1.056E-02 | 5.769E+00    |
| 2193 | 5.272E+04            | 1.005E-02 | 5.488E+00    |
| 2194 | 5.272E+04            | 9.556E-03 | 5.220E+00    |
| 2195 | 5.272E+04            | 9.090E-03 | 4.966E+00    |
| 2196 | 5.272E+04            | 8.646E-03 | 4.723E+00    |
| 2197 | 5.272E+04            | 8.225E-03 | 4.493E+00    |
| 2198 | 5.272E+04            | 7.824E-03 | 4.274E+00    |
| 2199 | 5.272E+04            | 7.442E-03 | 4.066E+00    |
| 2200 | 5.272E+04            | 7.079E-03 | 3.867E+00    |
| 2201 | 5.272E+04            | 6.734E-03 | 3.679E+00    |
| 2202 | 5.272E+04            | 6.405E-03 | 3.499E+00    |
| 2203 | 5.272E+04            | 6.093E-03 | 3.329E+00    |

Table D-33. Emission Rate of NMOCs from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177-2.000\030177-1.003\BUSHVA-1\STRATA3.PRM

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=====
Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974 Current Year : 2004 Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
Current Year to Closure Year : 0.00 Mg/year
=====
Model Results
=====
Year Refuse In Place (Mg) NMOC Emission Rate
(Mg/yr) (Cubic m/yr)
=====
1975 5.272E+03 4.407E-01 1.230E+02
1976 1.054E+04 8.600E-01 2.399E+02
1977 1.582E+04 1.259E+00 3.512E+02
1978 2.109E+04 1.638E+00 4.570E+02
1979 2.636E+04 1.999E+00 5.577E+02
1980 3.163E+04 2.342E+00 6.534E+02
1981 3.690E+04 2.669E+00 7.445E+02
1982 4.217E+04 2.979E+00 8.312E+02
1983 4.745E+04 3.275E+00 9.136E+02
1984 5.272E+04 3.556E+00 9.920E+02
1985 5.272E+04 3.382E+00 9.436E+02
1986 5.272E+04 3.217E+00 8.976E+02
1987 5.272E+04 3.060E+00 8.538E+02
1988 5.272E+04 2.911E+00 8.122E+02
1989 5.272E+04 2.769E+00 7.725E+02
1990 5.272E+04 2.634E+00 7.349E+02
1991 5.272E+04 2.506E+00 6.990E+02
1992 5.272E+04 2.383E+00 6.649E+02
1993 5.272E+04 2.267E+00 6.325E+02
1994 5.272E+04 2.157E+00 6.017E+02
1995 5.272E+04 2.051E+00 5.723E+02
1996 5.272E+04 1.951E+00 5.444E+02
1997 5.272E+04 1.856E+00 5.179E+02
1998 5.272E+04 1.766E+00 4.926E+02
1999 5.272E+04 1.680E+00 4.686E+02
2000 5.272E+04 1.598E+00 4.457E+02
2001 5.272E+04 1.520E+00 4.240E+02
2002 5.272E+04 1.446E+00 4.033E+02
2003 5.272E+04 1.375E+00 3.836E+02
2004 5.272E+04 1.308E+00 3.649E+02
2005 5.272E+04 1.244E+00 3.471E+02
2006 5.272E+04 1.184E+00 3.302E+02
2007 5.272E+04 1.126E+00 3.141E+02
2008 5.272E+04 1.071E+00 2.988E+02
2009 5.272E+04 1.019E+00 2.842E+02
2010 5.272E+04 9.690E-01 2.703E+02
2011 5.272E+04 9.218E-01 2.572E+02
2012 5.272E+04 8.768E-01 2.446E+02
2013 5.272E+04 8.341E-01 2.327E+02
2014 5.272E+04 7.934E-01 2.213E+02
2015 5.272E+04 7.547E-01 2.105E+02
2016 5.272E+04 7.179E-01 2.003E+02
2017 5.272E+04 6.829E-01 1.905E+02
2018 5.272E+04 6.496E-01 1.812E+02
2019 5.272E+04 6.179E-01 1.724E+02
2020 5.272E+04 5.878E-01 1.640E+02
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continued

Table D-33. Emission Rate of NMOCs from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2021 | 5.272E+04            | 5.591E-01 | 1.560E+02    |
| 2022 | 5.272E+04            | 5.318E-01 | 1.484E+02    |
| 2023 | 5.272E+04            | 5.059E-01 | 1.411E+02    |
| 2024 | 5.272E+04            | 4.812E-01 | 1.342E+02    |
| 2025 | 5.272E+04            | 4.577E-01 | 1.277E+02    |
| 2026 | 5.272E+04            | 4.354E-01 | 1.215E+02    |
| 2027 | 5.272E+04            | 4.142E-01 | 1.155E+02    |
| 2028 | 5.272E+04            | 3.940E-01 | 1.099E+02    |
| 2029 | 5.272E+04            | 3.748E-01 | 1.046E+02    |
| 2030 | 5.272E+04            | 3.565E-01 | 9.945E+01    |
| 2031 | 5.272E+04            | 3.391E-01 | 9.460E+01    |
| 2032 | 5.272E+04            | 3.226E-01 | 8.999E+01    |
| 2033 | 5.272E+04            | 3.068E-01 | 8.560E+01    |
| 2034 | 5.272E+04            | 2.919E-01 | 8.143E+01    |
| 2035 | 5.272E+04            | 2.776E-01 | 7.745E+01    |
| 2036 | 5.272E+04            | 2.641E-01 | 7.368E+01    |
| 2037 | 5.272E+04            | 2.512E-01 | 7.008E+01    |
| 2038 | 5.272E+04            | 2.390E-01 | 6.667E+01    |
| 2039 | 5.272E+04            | 2.273E-01 | 6.341E+01    |
| 2040 | 5.272E+04            | 2.162E-01 | 6.032E+01    |
| 2041 | 5.272E+04            | 2.057E-01 | 5.738E+01    |
| 2042 | 5.272E+04            | 1.956E-01 | 5.458E+01    |
| 2043 | 5.272E+04            | 1.861E-01 | 5.192E+01    |
| 2044 | 5.272E+04            | 1.770E-01 | 4.939E+01    |
| 2045 | 5.272E+04            | 1.684E-01 | 4.698E+01    |
| 2046 | 5.272E+04            | 1.602E-01 | 4.469E+01    |
| 2047 | 5.272E+04            | 1.524E-01 | 4.251E+01    |
| 2048 | 5.272E+04            | 1.449E-01 | 4.043E+01    |
| 2049 | 5.272E+04            | 1.379E-01 | 3.846E+01    |
| 2050 | 5.272E+04            | 1.311E-01 | 3.659E+01    |
| 2051 | 5.272E+04            | 1.247E-01 | 3.480E+01    |
| 2052 | 5.272E+04            | 1.187E-01 | 3.311E+01    |
| 2053 | 5.272E+04            | 1.129E-01 | 3.149E+01    |
| 2054 | 5.272E+04            | 1.074E-01 | 2.995E+01    |
| 2055 | 5.272E+04            | 1.021E-01 | 2.849E+01    |
| 2056 | 5.272E+04            | 9.715E-02 | 2.710E+01    |
| 2057 | 5.272E+04            | 9.242E-02 | 2.578E+01    |
| 2058 | 5.272E+04            | 8.791E-02 | 2.453E+01    |
| 2059 | 5.272E+04            | 8.362E-02 | 2.333E+01    |
| 2060 | 5.272E+04            | 7.954E-02 | 2.219E+01    |
| 2061 | 5.272E+04            | 7.566E-02 | 2.111E+01    |
| 2062 | 5.272E+04            | 7.197E-02 | 2.008E+01    |
| 2063 | 5.272E+04            | 6.846E-02 | 1.910E+01    |
| 2064 | 5.272E+04            | 6.512E-02 | 1.817E+01    |
| 2065 | 5.272E+04            | 6.195E-02 | 1.728E+01    |
| 2066 | 5.272E+04            | 5.893E-02 | 1.644E+01    |
| 2067 | 5.272E+04            | 5.605E-02 | 1.564E+01    |
| 2068 | 5.272E+04            | 5.332E-02 | 1.488E+01    |
| 2069 | 5.272E+04            | 5.072E-02 | 1.415E+01    |
| 2070 | 5.272E+04            | 4.825E-02 | 1.346E+01    |
| 2071 | 5.272E+04            | 4.589E-02 | 1.280E+01    |
| 2072 | 5.272E+04            | 4.365E-02 | 1.218E+01    |
| 2073 | 5.272E+04            | 4.153E-02 | 1.158E+01    |
| 2074 | 5.272E+04            | 3.950E-02 | 1.102E+01    |
| 2075 | 5.272E+04            | 3.757E-02 | 1.048E+01    |
| 2076 | 5.272E+04            | 3.574E-02 | 9.971E+00    |
| 2077 | 5.272E+04            | 3.400E-02 | 9.485E+00    |
| 2078 | 5.272E+04            | 3.234E-02 | 9.022E+00    |
| 2079 | 5.272E+04            | 3.076E-02 | 8.582E+00    |
| 2080 | 5.272E+04            | 2.926E-02 | 8.164E+00    |
| 2081 | 5.272E+04            | 2.784E-02 | 7.766E+00    |
| 2082 | 5.272E+04            | 2.648E-02 | 7.387E+00    |
| 2083 | 5.272E+04            | 2.519E-02 | 7.027E+00    |
| 2084 | 5.272E+04            | 2.396E-02 | 6.684E+00    |
| 2085 | 5.272E+04            | 2.279E-02 | 6.358E+00    |
| 2086 | 5.272E+04            | 2.168E-02 | 6.048E+00    |
| 2087 | 5.272E+04            | 2.062E-02 | 5.753E+00    |
| 2088 | 5.272E+04            | 1.962E-02 | 5.472E+00    |
| 2089 | 5.272E+04            | 1.866E-02 | 5.205E+00    |
| 2090 | 5.272E+04            | 1.775E-02 | 4.952E+00    |

continued

Table D-33. Emission Rate of NMOCs from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2091 | 5.272E+04            | 1.688E-02 | 4.710E+00    |
| 2092 | 5.272E+04            | 1.606E-02 | 4.480E+00    |
| 2093 | 5.272E+04            | 1.528E-02 | 4.262E+00    |
| 2094 | 5.272E+04            | 1.453E-02 | 4.054E+00    |
| 2095 | 5.272E+04            | 1.382E-02 | 3.856E+00    |
| 2096 | 5.272E+04            | 1.315E-02 | 3.668E+00    |
| 2097 | 5.272E+04            | 1.251E-02 | 3.489E+00    |
| 2098 | 5.272E+04            | 1.190E-02 | 3.319E+00    |
| 2099 | 5.272E+04            | 1.132E-02 | 3.157E+00    |
| 2100 | 5.272E+04            | 1.077E-02 | 3.003E+00    |
| 2101 | 5.272E+04            | 1.024E-02 | 2.857E+00    |
| 2102 | 5.272E+04            | 9.741E-03 | 2.717E+00    |
| 2103 | 5.272E+04            | 9.266E-03 | 2.585E+00    |
| 2104 | 5.272E+04            | 8.814E-03 | 2.459E+00    |
| 2105 | 5.272E+04            | 8.384E-03 | 2.339E+00    |
| 2106 | 5.272E+04            | 7.975E-03 | 2.225E+00    |
| 2107 | 5.272E+04            | 7.586E-03 | 2.116E+00    |
| 2108 | 5.272E+04            | 7.216E-03 | 2.013E+00    |
| 2109 | 5.272E+04            | 6.864E-03 | 1.915E+00    |
| 2110 | 5.272E+04            | 6.529E-03 | 1.822E+00    |
| 2111 | 5.272E+04            | 6.211E-03 | 1.733E+00    |
| 2112 | 5.272E+04            | 5.908E-03 | 1.648E+00    |
| 2113 | 5.272E+04            | 5.620E-03 | 1.568E+00    |
| 2114 | 5.272E+04            | 5.346E-03 | 1.491E+00    |
| 2115 | 5.272E+04            | 5.085E-03 | 1.419E+00    |
| 2116 | 5.272E+04            | 4.837E-03 | 1.349E+00    |
| 2117 | 5.272E+04            | 4.601E-03 | 1.284E+00    |
| 2118 | 5.272E+04            | 4.377E-03 | 1.221E+00    |
| 2119 | 5.272E+04            | 4.163E-03 | 1.161E+00    |
| 2120 | 5.272E+04            | 3.960E-03 | 1.105E+00    |
| 2121 | 5.272E+04            | 3.767E-03 | 1.051E+00    |
| 2122 | 5.272E+04            | 3.583E-03 | 9.997E-01    |
| 2123 | 5.272E+04            | 3.409E-03 | 9.509E-01    |
| 2124 | 5.272E+04            | 3.242E-03 | 9.046E-01    |
| 2125 | 5.272E+04            | 3.084E-03 | 8.604E-01    |
| 2126 | 5.272E+04            | 2.934E-03 | 8.185E-01    |
| 2127 | 5.272E+04            | 2.791E-03 | 7.786E-01    |
| 2128 | 5.272E+04            | 2.655E-03 | 7.406E-01    |
| 2129 | 5.272E+04            | 2.525E-03 | 7.045E-01    |
| 2130 | 5.272E+04            | 2.402E-03 | 6.701E-01    |
| 2131 | 5.272E+04            | 2.285E-03 | 6.374E-01    |
| 2132 | 5.272E+04            | 2.173E-03 | 6.063E-01    |
| 2133 | 5.272E+04            | 2.067E-03 | 5.768E-01    |
| 2134 | 5.272E+04            | 1.967E-03 | 5.486E-01    |
| 2135 | 5.272E+04            | 1.871E-03 | 5.219E-01    |
| 2136 | 5.272E+04            | 1.779E-03 | 4.964E-01    |
| 2137 | 5.272E+04            | 1.693E-03 | 4.722E-01    |
| 2138 | 5.272E+04            | 1.610E-03 | 4.492E-01    |
| 2139 | 5.272E+04            | 1.532E-03 | 4.273E-01    |
| 2140 | 5.272E+04            | 1.457E-03 | 4.064E-01    |
| 2141 | 5.272E+04            | 1.386E-03 | 3.866E-01    |
| 2142 | 5.272E+04            | 1.318E-03 | 3.678E-01    |
| 2143 | 5.272E+04            | 1.254E-03 | 3.498E-01    |
| 2144 | 5.272E+04            | 1.193E-03 | 3.328E-01    |
| 2145 | 5.272E+04            | 1.135E-03 | 3.165E-01    |
| 2146 | 5.272E+04            | 1.079E-03 | 3.011E-01    |
| 2147 | 5.272E+04            | 1.027E-03 | 2.864E-01    |
| 2148 | 5.272E+04            | 9.766E-04 | 2.724E-01    |
| 2149 | 5.272E+04            | 9.290E-04 | 2.592E-01    |
| 2150 | 5.272E+04            | 8.836E-04 | 2.465E-01    |
| 2151 | 5.272E+04            | 8.406E-04 | 2.345E-01    |
| 2152 | 5.272E+04            | 7.996E-04 | 2.231E-01    |
| 2153 | 5.272E+04            | 7.606E-04 | 2.122E-01    |
| 2154 | 5.272E+04            | 7.235E-04 | 2.018E-01    |
| 2155 | 5.272E+04            | 6.882E-04 | 1.920E-01    |
| 2156 | 5.272E+04            | 6.546E-04 | 1.826E-01    |
| 2157 | 5.272E+04            | 6.227E-04 | 1.737E-01    |
| 2158 | 5.272E+04            | 5.923E-04 | 1.652E-01    |
| 2159 | 5.272E+04            | 5.634E-04 | 1.572E-01    |
| 2160 | 5.272E+04            | 5.360E-04 | 1.495E-01    |

continued

Table D-33. Emission Rate of NMOCs from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2161 | 5.272E+04            | 5.098E-04 | 1.422E-01    |
| 2162 | 5.272E+04            | 4.850E-04 | 1.353E-01    |
| 2163 | 5.272E+04            | 4.613E-04 | 1.287E-01    |
| 2164 | 5.272E+04            | 4.388E-04 | 1.224E-01    |
| 2165 | 5.272E+04            | 4.174E-04 | 1.164E-01    |
| 2166 | 5.272E+04            | 3.970E-04 | 1.108E-01    |
| 2167 | 5.272E+04            | 3.777E-04 | 1.054E-01    |
| 2168 | 5.272E+04            | 3.593E-04 | 1.002E-01    |
| 2169 | 5.272E+04            | 3.417E-04 | 9.534E-02    |
| 2170 | 5.272E+04            | 3.251E-04 | 9.069E-02    |
| 2171 | 5.272E+04            | 3.092E-04 | 8.627E-02    |
| 2172 | 5.272E+04            | 2.941E-04 | 8.206E-02    |
| 2173 | 5.272E+04            | 2.798E-04 | 7.806E-02    |
| 2174 | 5.272E+04            | 2.661E-04 | 7.425E-02    |
| 2175 | 5.272E+04            | 2.532E-04 | 7.063E-02    |
| 2176 | 5.272E+04            | 2.408E-04 | 6.718E-02    |
| 2177 | 5.272E+04            | 2.291E-04 | 6.391E-02    |
| 2178 | 5.272E+04            | 2.179E-04 | 6.079E-02    |
| 2179 | 5.272E+04            | 2.073E-04 | 5.783E-02    |
| 2180 | 5.272E+04            | 1.972E-04 | 5.501E-02    |
| 2181 | 5.272E+04            | 1.876E-04 | 5.232E-02    |
| 2182 | 5.272E+04            | 1.784E-04 | 4.977E-02    |
| 2183 | 5.272E+04            | 1.697E-04 | 4.734E-02    |
| 2184 | 5.272E+04            | 1.614E-04 | 4.504E-02    |
| 2185 | 5.272E+04            | 1.536E-04 | 4.284E-02    |
| 2186 | 5.272E+04            | 1.461E-04 | 4.075E-02    |
| 2187 | 5.272E+04            | 1.389E-04 | 3.876E-02    |
| 2188 | 5.272E+04            | 1.322E-04 | 3.687E-02    |
| 2189 | 5.272E+04            | 1.257E-04 | 3.507E-02    |
| 2190 | 5.272E+04            | 1.196E-04 | 3.336E-02    |
| 2191 | 5.272E+04            | 1.138E-04 | 3.174E-02    |
| 2192 | 5.272E+04            | 1.082E-04 | 3.019E-02    |
| 2193 | 5.272E+04            | 1.029E-04 | 2.872E-02    |
| 2194 | 5.272E+04            | 9.791E-05 | 2.732E-02    |
| 2195 | 5.272E+04            | 9.314E-05 | 2.598E-02    |
| 2196 | 5.272E+04            | 8.859E-05 | 2.472E-02    |
| 2197 | 5.272E+04            | 8.427E-05 | 2.351E-02    |
| 2198 | 5.272E+04            | 8.016E-05 | 2.236E-02    |
| 2199 | 5.272E+04            | 7.625E-05 | 2.127E-02    |
| 2200 | 5.272E+04            | 7.253E-05 | 2.024E-02    |
| 2201 | 5.272E+04            | 6.900E-05 | 1.925E-02    |
| 2202 | 5.272E+04            | 6.563E-05 | 1.831E-02    |
| 2203 | 5.272E+04            | 6.243E-05 | 1.742E-02    |

Table D-34. Emission Rate of 1,1,1-Trichloroethane from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177-2.000\030177-1.003\BUSHVA-1\STRATA3.PRM

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=====
Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
Air Pollutant : 1,1,1-Trichloroethane (HAP)
Molecular Wt = 133.41      Concentration =      0.030000 ppmV
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
Model Results
=====
Year      Refuse In Place (Mg)      1,1,1-Trichloroethane (HAP) Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      1.137E-05      2.049E-03
1976      1.054E+04      2.219E-05      3.999E-03
1977      1.582E+04      3.248E-05      5.853E-03
1978      2.109E+04      4.226E-05      7.617E-03
1979      2.636E+04      5.157E-05      9.294E-03
1980      3.163E+04      6.043E-05      1.089E-02
1981      3.690E+04      6.885E-05      1.241E-02
1982      4.217E+04      7.687E-05      1.385E-02
1983      4.745E+04      8.449E-05      1.523E-02
1984      5.272E+04      9.174E-05      1.653E-02
1985      5.272E+04      8.726E-05      1.573E-02
1986      5.272E+04      8.301E-05      1.496E-02
1987      5.272E+04      7.896E-05      1.423E-02
1988      5.272E+04      7.511E-05      1.354E-02
1989      5.272E+04      7.145E-05      1.288E-02
1990      5.272E+04      6.796E-05      1.225E-02
1991      5.272E+04      6.465E-05      1.165E-02
1992      5.272E+04      6.149E-05      1.108E-02
1993      5.272E+04      5.850E-05      1.054E-02
1994      5.272E+04      5.564E-05      1.003E-02
1995      5.272E+04      5.293E-05      9.539E-03
1996      5.272E+04      5.035E-05      9.073E-03
1997      5.272E+04      4.789E-05      8.631E-03
1998      5.272E+04      4.556E-05      8.210E-03
1999      5.272E+04      4.333E-05      7.810E-03
2000      5.272E+04      4.122E-05      7.429E-03
2001      5.272E+04      3.921E-05      7.066E-03
2002      5.272E+04      3.730E-05      6.722E-03
2003      5.272E+04      3.548E-05      6.394E-03
2004      5.272E+04      3.375E-05      6.082E-03
2005      5.272E+04      3.210E-05      5.785E-03
2006      5.272E+04      3.054E-05      5.503E-03
2007      5.272E+04      2.905E-05      5.235E-03
2008      5.272E+04      2.763E-05      4.980E-03
2009      5.272E+04      2.628E-05      4.737E-03
2010      5.272E+04      2.500E-05      4.506E-03
2011      5.272E+04      2.378E-05      4.286E-03
2012      5.272E+04      2.262E-05      4.077E-03
2013      5.272E+04      2.152E-05      3.878E-03
2014      5.272E+04      2.047E-05      3.689E-03
2015      5.272E+04      1.947E-05      3.509E-03
2016      5.272E+04      1.852E-05      3.338E-03
2017      5.272E+04      1.762E-05      3.175E-03
2018      5.272E+04      1.676E-05      3.020E-03
=====

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continued

Table D-34. Emission Rate of 1,1,1-Trichloroethane from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 5.272E+04            | 1.594E-05 | 2.873E-03    |
| 2020 | 5.272E+04            | 1.516E-05 | 2.733E-03    |
| 2021 | 5.272E+04            | 1.442E-05 | 2.600E-03    |
| 2022 | 5.272E+04            | 1.372E-05 | 2.473E-03    |
| 2023 | 5.272E+04            | 1.305E-05 | 2.352E-03    |
| 2024 | 5.272E+04            | 1.242E-05 | 2.237E-03    |
| 2025 | 5.272E+04            | 1.181E-05 | 2.128E-03    |
| 2026 | 5.272E+04            | 1.123E-05 | 2.025E-03    |
| 2027 | 5.272E+04            | 1.069E-05 | 1.926E-03    |
| 2028 | 5.272E+04            | 1.016E-05 | 1.832E-03    |
| 2029 | 5.272E+04            | 9.669E-06 | 1.743E-03    |
| 2030 | 5.272E+04            | 9.198E-06 | 1.658E-03    |
| 2031 | 5.272E+04            | 8.749E-06 | 1.577E-03    |
| 2032 | 5.272E+04            | 8.322E-06 | 1.500E-03    |
| 2033 | 5.272E+04            | 7.916E-06 | 1.427E-03    |
| 2034 | 5.272E+04            | 7.530E-06 | 1.357E-03    |
| 2035 | 5.272E+04            | 7.163E-06 | 1.291E-03    |
| 2036 | 5.272E+04            | 6.814E-06 | 1.228E-03    |
| 2037 | 5.272E+04            | 6.481E-06 | 1.168E-03    |
| 2038 | 5.272E+04            | 6.165E-06 | 1.111E-03    |
| 2039 | 5.272E+04            | 5.865E-06 | 1.057E-03    |
| 2040 | 5.272E+04            | 5.579E-06 | 1.005E-03    |
| 2041 | 5.272E+04            | 5.307E-06 | 9.563E-04    |
| 2042 | 5.272E+04            | 5.048E-06 | 9.097E-04    |
| 2043 | 5.272E+04            | 4.802E-06 | 8.653E-04    |
| 2044 | 5.272E+04            | 4.567E-06 | 8.231E-04    |
| 2045 | 5.272E+04            | 4.345E-06 | 7.830E-04    |
| 2046 | 5.272E+04            | 4.133E-06 | 7.448E-04    |
| 2047 | 5.272E+04            | 3.931E-06 | 7.085E-04    |
| 2048 | 5.272E+04            | 3.739E-06 | 6.739E-04    |
| 2049 | 5.272E+04            | 3.557E-06 | 6.410E-04    |
| 2050 | 5.272E+04            | 3.384E-06 | 6.098E-04    |
| 2051 | 5.272E+04            | 3.219E-06 | 5.800E-04    |
| 2052 | 5.272E+04            | 3.062E-06 | 5.518E-04    |
| 2053 | 5.272E+04            | 2.912E-06 | 5.248E-04    |
| 2054 | 5.272E+04            | 2.770E-06 | 4.992E-04    |
| 2055 | 5.272E+04            | 2.635E-06 | 4.749E-04    |
| 2056 | 5.272E+04            | 2.507E-06 | 4.517E-04    |
| 2057 | 5.272E+04            | 2.384E-06 | 4.297E-04    |
| 2058 | 5.272E+04            | 2.268E-06 | 4.088E-04    |
| 2059 | 5.272E+04            | 2.157E-06 | 3.888E-04    |
| 2060 | 5.272E+04            | 2.052E-06 | 3.699E-04    |
| 2061 | 5.272E+04            | 1.952E-06 | 3.518E-04    |
| 2062 | 5.272E+04            | 1.857E-06 | 3.347E-04    |
| 2063 | 5.272E+04            | 1.766E-06 | 3.183E-04    |
| 2064 | 5.272E+04            | 1.680E-06 | 3.028E-04    |
| 2065 | 5.272E+04            | 1.598E-06 | 2.880E-04    |
| 2066 | 5.272E+04            | 1.520E-06 | 2.740E-04    |
| 2067 | 5.272E+04            | 1.446E-06 | 2.606E-04    |
| 2068 | 5.272E+04            | 1.376E-06 | 2.479E-04    |
| 2069 | 5.272E+04            | 1.309E-06 | 2.358E-04    |
| 2070 | 5.272E+04            | 1.245E-06 | 2.243E-04    |
| 2071 | 5.272E+04            | 1.184E-06 | 2.134E-04    |
| 2072 | 5.272E+04            | 1.126E-06 | 2.030E-04    |
| 2073 | 5.272E+04            | 1.071E-06 | 1.931E-04    |
| 2074 | 5.272E+04            | 1.019E-06 | 1.837E-04    |
| 2075 | 5.272E+04            | 9.694E-07 | 1.747E-04    |
| 2076 | 5.272E+04            | 9.221E-07 | 1.662E-04    |
| 2077 | 5.272E+04            | 8.772E-07 | 1.581E-04    |
| 2078 | 5.272E+04            | 8.344E-07 | 1.504E-04    |
| 2079 | 5.272E+04            | 7.937E-07 | 1.430E-04    |
| 2080 | 5.272E+04            | 7.550E-07 | 1.361E-04    |
| 2081 | 5.272E+04            | 7.182E-07 | 1.294E-04    |
| 2082 | 5.272E+04            | 6.831E-07 | 1.231E-04    |
| 2083 | 5.272E+04            | 6.498E-07 | 1.171E-04    |
| 2084 | 5.272E+04            | 6.181E-07 | 1.114E-04    |
| 2085 | 5.272E+04            | 5.880E-07 | 1.060E-04    |
| 2086 | 5.272E+04            | 5.593E-07 | 1.008E-04    |
| 2087 | 5.272E+04            | 5.320E-07 | 9.588E-05    |
| 2088 | 5.272E+04            | 5.061E-07 | 9.120E-05    |

continued



Table D-34. Emission Rate of 1,1,1-Trichloroethane from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 5.272E+04            | 4.814E-07 | 8.676E-05    |
| 2090 | 5.272E+04            | 4.579E-07 | 8.253E-05    |
| 2091 | 5.272E+04            | 4.356E-07 | 7.850E-05    |
| 2092 | 5.272E+04            | 4.143E-07 | 7.467E-05    |
| 2093 | 5.272E+04            | 3.941E-07 | 7.103E-05    |
| 2094 | 5.272E+04            | 3.749E-07 | 6.757E-05    |
| 2095 | 5.272E+04            | 3.566E-07 | 6.427E-05    |
| 2096 | 5.272E+04            | 3.392E-07 | 6.114E-05    |
| 2097 | 5.272E+04            | 3.227E-07 | 5.815E-05    |
| 2098 | 5.272E+04            | 3.070E-07 | 5.532E-05    |
| 2099 | 5.272E+04            | 2.920E-07 | 5.262E-05    |
| 2100 | 5.272E+04            | 2.777E-07 | 5.005E-05    |
| 2101 | 5.272E+04            | 2.642E-07 | 4.761E-05    |
| 2102 | 5.272E+04            | 2.513E-07 | 4.529E-05    |
| 2103 | 5.272E+04            | 2.391E-07 | 4.308E-05    |
| 2104 | 5.272E+04            | 2.274E-07 | 4.098E-05    |
| 2105 | 5.272E+04            | 2.163E-07 | 3.898E-05    |
| 2106 | 5.272E+04            | 2.058E-07 | 3.708E-05    |
| 2107 | 5.272E+04            | 1.957E-07 | 3.527E-05    |
| 2108 | 5.272E+04            | 1.862E-07 | 3.355E-05    |
| 2109 | 5.272E+04            | 1.771E-07 | 3.192E-05    |
| 2110 | 5.272E+04            | 1.685E-07 | 3.036E-05    |
| 2111 | 5.272E+04            | 1.602E-07 | 2.888E-05    |
| 2112 | 5.272E+04            | 1.524E-07 | 2.747E-05    |
| 2113 | 5.272E+04            | 1.450E-07 | 2.613E-05    |
| 2114 | 5.272E+04            | 1.379E-07 | 2.486E-05    |
| 2115 | 5.272E+04            | 1.312E-07 | 2.364E-05    |
| 2116 | 5.272E+04            | 1.248E-07 | 2.249E-05    |
| 2117 | 5.272E+04            | 1.187E-07 | 2.139E-05    |
| 2118 | 5.272E+04            | 1.129E-07 | 2.035E-05    |
| 2119 | 5.272E+04            | 1.074E-07 | 1.936E-05    |
| 2120 | 5.272E+04            | 1.022E-07 | 1.841E-05    |
| 2121 | 5.272E+04            | 9.719E-08 | 1.752E-05    |
| 2122 | 5.272E+04            | 9.245E-08 | 1.666E-05    |
| 2123 | 5.272E+04            | 8.794E-08 | 1.585E-05    |
| 2124 | 5.272E+04            | 8.366E-08 | 1.508E-05    |
| 2125 | 5.272E+04            | 7.958E-08 | 1.434E-05    |
| 2126 | 5.272E+04            | 7.569E-08 | 1.364E-05    |
| 2127 | 5.272E+04            | 7.200E-08 | 1.298E-05    |
| 2128 | 5.272E+04            | 6.849E-08 | 1.234E-05    |
| 2129 | 5.272E+04            | 6.515E-08 | 1.174E-05    |
| 2130 | 5.272E+04            | 6.197E-08 | 1.117E-05    |
| 2131 | 5.272E+04            | 5.895E-08 | 1.062E-05    |
| 2132 | 5.272E+04            | 5.608E-08 | 1.011E-05    |
| 2133 | 5.272E+04            | 5.334E-08 | 9.613E-06    |
| 2134 | 5.272E+04            | 5.074E-08 | 9.144E-06    |
| 2135 | 5.272E+04            | 4.826E-08 | 8.698E-06    |
| 2136 | 5.272E+04            | 4.591E-08 | 8.274E-06    |
| 2137 | 5.272E+04            | 4.367E-08 | 7.870E-06    |
| 2138 | 5.272E+04            | 4.154E-08 | 7.487E-06    |
| 2139 | 5.272E+04            | 3.952E-08 | 7.121E-06    |
| 2140 | 5.272E+04            | 3.759E-08 | 6.774E-06    |
| 2141 | 5.272E+04            | 3.576E-08 | 6.444E-06    |
| 2142 | 5.272E+04            | 3.401E-08 | 6.129E-06    |
| 2143 | 5.272E+04            | 3.235E-08 | 5.831E-06    |
| 2144 | 5.272E+04            | 3.078E-08 | 5.546E-06    |
| 2145 | 5.272E+04            | 2.927E-08 | 5.276E-06    |
| 2146 | 5.272E+04            | 2.785E-08 | 5.018E-06    |
| 2147 | 5.272E+04            | 2.649E-08 | 4.774E-06    |
| 2148 | 5.272E+04            | 2.520E-08 | 4.541E-06    |
| 2149 | 5.272E+04            | 2.397E-08 | 4.319E-06    |
| 2150 | 5.272E+04            | 2.280E-08 | 4.109E-06    |
| 2151 | 5.272E+04            | 2.169E-08 | 3.908E-06    |
| 2152 | 5.272E+04            | 2.063E-08 | 3.718E-06    |
| 2153 | 5.272E+04            | 1.962E-08 | 3.536E-06    |
| 2154 | 5.272E+04            | 1.867E-08 | 3.364E-06    |
| 2155 | 5.272E+04            | 1.776E-08 | 3.200E-06    |
| 2156 | 5.272E+04            | 1.689E-08 | 3.044E-06    |
| 2157 | 5.272E+04            | 1.607E-08 | 2.895E-06    |
| 2158 | 5.272E+04            | 1.528E-08 | 2.754E-06    |

continued

Table D-34. Emission Rate of 1,1,1-Trichloroethane from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 5.272E+04            | 1.454E-08 | 2.620E-06    |
| 2160 | 5.272E+04            | 1.383E-08 | 2.492E-06    |
| 2161 | 5.272E+04            | 1.315E-08 | 2.371E-06    |
| 2162 | 5.272E+04            | 1.251E-08 | 2.255E-06    |
| 2163 | 5.272E+04            | 1.190E-08 | 2.145E-06    |
| 2164 | 5.272E+04            | 1.132E-08 | 2.040E-06    |
| 2165 | 5.272E+04            | 1.077E-08 | 1.941E-06    |
| 2166 | 5.272E+04            | 1.024E-08 | 1.846E-06    |
| 2167 | 5.272E+04            | 9.745E-09 | 1.756E-06    |
| 2168 | 5.272E+04            | 9.269E-09 | 1.670E-06    |
| 2169 | 5.272E+04            | 8.817E-09 | 1.589E-06    |
| 2170 | 5.272E+04            | 8.387E-09 | 1.512E-06    |
| 2171 | 5.272E+04            | 7.978E-09 | 1.438E-06    |
| 2172 | 5.272E+04            | 7.589E-09 | 1.368E-06    |
| 2173 | 5.272E+04            | 7.219E-09 | 1.301E-06    |
| 2174 | 5.272E+04            | 6.867E-09 | 1.238E-06    |
| 2175 | 5.272E+04            | 6.532E-09 | 1.177E-06    |
| 2176 | 5.272E+04            | 6.213E-09 | 1.120E-06    |
| 2177 | 5.272E+04            | 5.910E-09 | 1.065E-06    |
| 2178 | 5.272E+04            | 5.622E-09 | 1.013E-06    |
| 2179 | 5.272E+04            | 5.348E-09 | 9.638E-07    |
| 2180 | 5.272E+04            | 5.087E-09 | 9.168E-07    |
| 2181 | 5.272E+04            | 4.839E-09 | 8.721E-07    |
| 2182 | 5.272E+04            | 4.603E-09 | 8.295E-07    |
| 2183 | 5.272E+04            | 4.378E-09 | 7.891E-07    |
| 2184 | 5.272E+04            | 4.165E-09 | 7.506E-07    |
| 2185 | 5.272E+04            | 3.962E-09 | 7.140E-07    |
| 2186 | 5.272E+04            | 3.769E-09 | 6.792E-07    |
| 2187 | 5.272E+04            | 3.585E-09 | 6.460E-07    |
| 2188 | 5.272E+04            | 3.410E-09 | 6.145E-07    |
| 2189 | 5.272E+04            | 3.244E-09 | 5.846E-07    |
| 2190 | 5.272E+04            | 3.085E-09 | 5.561E-07    |
| 2191 | 5.272E+04            | 2.935E-09 | 5.289E-07    |
| 2192 | 5.272E+04            | 2.792E-09 | 5.031E-07    |
| 2193 | 5.272E+04            | 2.656E-09 | 4.786E-07    |
| 2194 | 5.272E+04            | 2.526E-09 | 4.553E-07    |
| 2195 | 5.272E+04            | 2.403E-09 | 4.331E-07    |
| 2196 | 5.272E+04            | 2.286E-09 | 4.119E-07    |
| 2197 | 5.272E+04            | 2.174E-09 | 3.918E-07    |
| 2198 | 5.272E+04            | 2.068E-09 | 3.727E-07    |
| 2199 | 5.272E+04            | 1.967E-09 | 3.546E-07    |
| 2200 | 5.272E+04            | 1.871E-09 | 3.373E-07    |
| 2201 | 5.272E+04            | 1.780E-09 | 3.208E-07    |
| 2202 | 5.272E+04            | 1.693E-09 | 3.052E-07    |
| 2203 | 5.272E+04            | 1.611E-09 | 2.903E-07    |

Table D-35. Emission Rate of 1,1-Dichloroethene from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA3.PRM

```

=====
Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
Air Pollutant : 1,1-Dichloroethene (HAP/VOC)
Molecular Wt = 96.94      Concentration = 0.040000 ppmV
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
Model Results
=====
Year      Refuse In Place (Mg)      1,1-Dichloroethene (HAP/VOC) Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      1.102E-05      2.732E-03
1976      1.054E+04      2.150E-05      5.331E-03
1977      1.582E+04      3.146E-05      7.804E-03
1978      2.109E+04      4.095E-05      1.016E-02
1979      2.636E+04      4.997E-05      1.239E-02
1980      3.163E+04      5.855E-05      1.452E-02
1981      3.690E+04      6.671E-05      1.654E-02
1982      4.217E+04      7.447E-05      1.847E-02
1983      4.745E+04      8.186E-05      2.030E-02
1984      5.272E+04      8.888E-05      2.204E-02
1985      5.272E+04      8.455E-05      2.097E-02
1986      5.272E+04      8.042E-05      1.995E-02
1987      5.272E+04      7.650E-05      1.897E-02
1988      5.272E+04      7.277E-05      1.805E-02
1989      5.272E+04      6.922E-05      1.717E-02
1990      5.272E+04      6.584E-05      1.633E-02
1991      5.272E+04      6.263E-05      1.553E-02
1992      5.272E+04      5.958E-05      1.478E-02
1993      5.272E+04      5.667E-05      1.406E-02
1994      5.272E+04      5.391E-05      1.337E-02
1995      5.272E+04      5.128E-05      1.272E-02
1996      5.272E+04      4.878E-05      1.210E-02
1997      5.272E+04      4.640E-05      1.151E-02
1998      5.272E+04      4.414E-05      1.095E-02
1999      5.272E+04      4.198E-05      1.041E-02
2000      5.272E+04      3.994E-05      9.905E-03
2001      5.272E+04      3.799E-05      9.422E-03
2002      5.272E+04      3.614E-05      8.962E-03
2003      5.272E+04      3.437E-05      8.525E-03
2004      5.272E+04      3.270E-05      8.109E-03
2005      5.272E+04      3.110E-05      7.714E-03
2006      5.272E+04      2.959E-05      7.338E-03
2007      5.272E+04      2.814E-05      6.980E-03
2008      5.272E+04      2.677E-05      6.639E-03
2009      5.272E+04      2.546E-05      6.316E-03
2010      5.272E+04      2.422E-05      6.008E-03
2011      5.272E+04      2.304E-05      5.715E-03
2012      5.272E+04      2.192E-05      5.436E-03
2013      5.272E+04      2.085E-05      5.171E-03
2014      5.272E+04      1.983E-05      4.919E-03
2015      5.272E+04      1.886E-05      4.679E-03
2016      5.272E+04      1.794E-05      4.451E-03
2017      5.272E+04      1.707E-05      4.234E-03
2018      5.272E+04      1.624E-05      4.027E-03
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continued

Table D-35. Emission Rate of 1,1-Dichloroethene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 5.272E+04            | 1.545E-05 | 3.831E-03    |
| 2020 | 5.272E+04            | 1.469E-05 | 3.644E-03    |
| 2021 | 5.272E+04            | 1.398E-05 | 3.466E-03    |
| 2022 | 5.272E+04            | 1.329E-05 | 3.297E-03    |
| 2023 | 5.272E+04            | 1.265E-05 | 3.136E-03    |
| 2024 | 5.272E+04            | 1.203E-05 | 2.983E-03    |
| 2025 | 5.272E+04            | 1.144E-05 | 2.838E-03    |
| 2026 | 5.272E+04            | 1.088E-05 | 2.699E-03    |
| 2027 | 5.272E+04            | 1.035E-05 | 2.568E-03    |
| 2028 | 5.272E+04            | 9.848E-06 | 2.443E-03    |
| 2029 | 5.272E+04            | 9.368E-06 | 2.323E-03    |
| 2030 | 5.272E+04            | 8.911E-06 | 2.210E-03    |
| 2031 | 5.272E+04            | 8.476E-06 | 2.102E-03    |
| 2032 | 5.272E+04            | 8.063E-06 | 2.000E-03    |
| 2033 | 5.272E+04            | 7.670E-06 | 1.902E-03    |
| 2034 | 5.272E+04            | 7.296E-06 | 1.809E-03    |
| 2035 | 5.272E+04            | 6.940E-06 | 1.721E-03    |
| 2036 | 5.272E+04            | 6.601E-06 | 1.637E-03    |
| 2037 | 5.272E+04            | 6.280E-06 | 1.557E-03    |
| 2038 | 5.272E+04            | 5.973E-06 | 1.481E-03    |
| 2039 | 5.272E+04            | 5.682E-06 | 1.409E-03    |
| 2040 | 5.272E+04            | 5.405E-06 | 1.340E-03    |
| 2041 | 5.272E+04            | 5.141E-06 | 1.275E-03    |
| 2042 | 5.272E+04            | 4.891E-06 | 1.213E-03    |
| 2043 | 5.272E+04            | 4.652E-06 | 1.154E-03    |
| 2044 | 5.272E+04            | 4.425E-06 | 1.097E-03    |
| 2045 | 5.272E+04            | 4.209E-06 | 1.044E-03    |
| 2046 | 5.272E+04            | 4.004E-06 | 9.931E-04    |
| 2047 | 5.272E+04            | 3.809E-06 | 9.446E-04    |
| 2048 | 5.272E+04            | 3.623E-06 | 8.986E-04    |
| 2049 | 5.272E+04            | 3.446E-06 | 8.547E-04    |
| 2050 | 5.272E+04            | 3.278E-06 | 8.130E-04    |
| 2051 | 5.272E+04            | 3.118E-06 | 7.734E-04    |
| 2052 | 5.272E+04            | 2.966E-06 | 7.357E-04    |
| 2053 | 5.272E+04            | 2.822E-06 | 6.998E-04    |
| 2054 | 5.272E+04            | 2.684E-06 | 6.657E-04    |
| 2055 | 5.272E+04            | 2.553E-06 | 6.332E-04    |
| 2056 | 5.272E+04            | 2.429E-06 | 6.023E-04    |
| 2057 | 5.272E+04            | 2.310E-06 | 5.729E-04    |
| 2058 | 5.272E+04            | 2.197E-06 | 5.450E-04    |
| 2059 | 5.272E+04            | 2.090E-06 | 5.184E-04    |
| 2060 | 5.272E+04            | 1.988E-06 | 4.931E-04    |
| 2061 | 5.272E+04            | 1.891E-06 | 4.691E-04    |
| 2062 | 5.272E+04            | 1.799E-06 | 4.462E-04    |
| 2063 | 5.272E+04            | 1.711E-06 | 4.244E-04    |
| 2064 | 5.272E+04            | 1.628E-06 | 4.037E-04    |
| 2065 | 5.272E+04            | 1.549E-06 | 3.841E-04    |
| 2066 | 5.272E+04            | 1.473E-06 | 3.653E-04    |
| 2067 | 5.272E+04            | 1.401E-06 | 3.475E-04    |
| 2068 | 5.272E+04            | 1.333E-06 | 3.306E-04    |
| 2069 | 5.272E+04            | 1.268E-06 | 3.144E-04    |
| 2070 | 5.272E+04            | 1.206E-06 | 2.991E-04    |
| 2071 | 5.272E+04            | 1.147E-06 | 2.845E-04    |
| 2072 | 5.272E+04            | 1.091E-06 | 2.706E-04    |
| 2073 | 5.272E+04            | 1.038E-06 | 2.574E-04    |
| 2074 | 5.272E+04            | 9.874E-07 | 2.449E-04    |
| 2075 | 5.272E+04            | 9.392E-07 | 2.329E-04    |
| 2076 | 5.272E+04            | 8.934E-07 | 2.216E-04    |
| 2077 | 5.272E+04            | 8.498E-07 | 2.108E-04    |
| 2078 | 5.272E+04            | 8.084E-07 | 2.005E-04    |
| 2079 | 5.272E+04            | 7.690E-07 | 1.907E-04    |
| 2080 | 5.272E+04            | 7.315E-07 | 1.814E-04    |
| 2081 | 5.272E+04            | 6.958E-07 | 1.726E-04    |
| 2082 | 5.272E+04            | 6.619E-07 | 1.642E-04    |
| 2083 | 5.272E+04            | 6.296E-07 | 1.561E-04    |
| 2084 | 5.272E+04            | 5.989E-07 | 1.485E-04    |
| 2085 | 5.272E+04            | 5.697E-07 | 1.413E-04    |
| 2086 | 5.272E+04            | 5.419E-07 | 1.344E-04    |
| 2087 | 5.272E+04            | 5.155E-07 | 1.278E-04    |
| 2088 | 5.272E+04            | 4.903E-07 | 1.216E-04    |

continued

Table D-35. Emission Rate of 1,1-Dichloroethene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 5.272E+04            | 4.664E-07 | 1.157E-04    |
| 2090 | 5.272E+04            | 4.437E-07 | 1.100E-04    |
| 2091 | 5.272E+04            | 4.220E-07 | 1.047E-04    |
| 2092 | 5.272E+04            | 4.014E-07 | 9.956E-05    |
| 2093 | 5.272E+04            | 3.819E-07 | 9.471E-05    |
| 2094 | 5.272E+04            | 3.632E-07 | 9.009E-05    |
| 2095 | 5.272E+04            | 3.455E-07 | 8.569E-05    |
| 2096 | 5.272E+04            | 3.287E-07 | 8.151E-05    |
| 2097 | 5.272E+04            | 3.126E-07 | 7.754E-05    |
| 2098 | 5.272E+04            | 2.974E-07 | 7.376E-05    |
| 2099 | 5.272E+04            | 2.829E-07 | 7.016E-05    |
| 2100 | 5.272E+04            | 2.691E-07 | 6.674E-05    |
| 2101 | 5.272E+04            | 2.560E-07 | 6.348E-05    |
| 2102 | 5.272E+04            | 2.435E-07 | 6.039E-05    |
| 2103 | 5.272E+04            | 2.316E-07 | 5.744E-05    |
| 2104 | 5.272E+04            | 2.203E-07 | 5.464E-05    |
| 2105 | 5.272E+04            | 2.096E-07 | 5.198E-05    |
| 2106 | 5.272E+04            | 1.993E-07 | 4.944E-05    |
| 2107 | 5.272E+04            | 1.896E-07 | 4.703E-05    |
| 2108 | 5.272E+04            | 1.804E-07 | 4.474E-05    |
| 2109 | 5.272E+04            | 1.716E-07 | 4.255E-05    |
| 2110 | 5.272E+04            | 1.632E-07 | 4.048E-05    |
| 2111 | 5.272E+04            | 1.553E-07 | 3.850E-05    |
| 2112 | 5.272E+04            | 1.477E-07 | 3.663E-05    |
| 2113 | 5.272E+04            | 1.405E-07 | 3.484E-05    |
| 2114 | 5.272E+04            | 1.336E-07 | 3.314E-05    |
| 2115 | 5.272E+04            | 1.271E-07 | 3.153E-05    |
| 2116 | 5.272E+04            | 1.209E-07 | 2.999E-05    |
| 2117 | 5.272E+04            | 1.150E-07 | 2.853E-05    |
| 2118 | 5.272E+04            | 1.094E-07 | 2.713E-05    |
| 2119 | 5.272E+04            | 1.041E-07 | 2.581E-05    |
| 2120 | 5.272E+04            | 9.899E-08 | 2.455E-05    |
| 2121 | 5.272E+04            | 9.417E-08 | 2.335E-05    |
| 2122 | 5.272E+04            | 8.957E-08 | 2.222E-05    |
| 2123 | 5.272E+04            | 8.520E-08 | 2.113E-05    |
| 2124 | 5.272E+04            | 8.105E-08 | 2.010E-05    |
| 2125 | 5.272E+04            | 7.710E-08 | 1.912E-05    |
| 2126 | 5.272E+04            | 7.334E-08 | 1.819E-05    |
| 2127 | 5.272E+04            | 6.976E-08 | 1.730E-05    |
| 2128 | 5.272E+04            | 6.636E-08 | 1.646E-05    |
| 2129 | 5.272E+04            | 6.312E-08 | 1.565E-05    |
| 2130 | 5.272E+04            | 6.004E-08 | 1.489E-05    |
| 2131 | 5.272E+04            | 5.711E-08 | 1.417E-05    |
| 2132 | 5.272E+04            | 5.433E-08 | 1.347E-05    |
| 2133 | 5.272E+04            | 5.168E-08 | 1.282E-05    |
| 2134 | 5.272E+04            | 4.916E-08 | 1.219E-05    |
| 2135 | 5.272E+04            | 4.676E-08 | 1.160E-05    |
| 2136 | 5.272E+04            | 4.448E-08 | 1.103E-05    |
| 2137 | 5.272E+04            | 4.231E-08 | 1.049E-05    |
| 2138 | 5.272E+04            | 4.025E-08 | 9.982E-06    |
| 2139 | 5.272E+04            | 3.828E-08 | 9.495E-06    |
| 2140 | 5.272E+04            | 3.642E-08 | 9.032E-06    |
| 2141 | 5.272E+04            | 3.464E-08 | 8.592E-06    |
| 2142 | 5.272E+04            | 3.295E-08 | 8.173E-06    |
| 2143 | 5.272E+04            | 3.134E-08 | 7.774E-06    |
| 2144 | 5.272E+04            | 2.982E-08 | 7.395E-06    |
| 2145 | 5.272E+04            | 2.836E-08 | 7.034E-06    |
| 2146 | 5.272E+04            | 2.698E-08 | 6.691E-06    |
| 2147 | 5.272E+04            | 2.566E-08 | 6.365E-06    |
| 2148 | 5.272E+04            | 2.441E-08 | 6.054E-06    |
| 2149 | 5.272E+04            | 2.322E-08 | 5.759E-06    |
| 2150 | 5.272E+04            | 2.209E-08 | 5.478E-06    |
| 2151 | 5.272E+04            | 2.101E-08 | 5.211E-06    |
| 2152 | 5.272E+04            | 1.999E-08 | 4.957E-06    |
| 2153 | 5.272E+04            | 1.901E-08 | 4.715E-06    |
| 2154 | 5.272E+04            | 1.808E-08 | 4.485E-06    |
| 2155 | 5.272E+04            | 1.720E-08 | 4.266E-06    |
| 2156 | 5.272E+04            | 1.636E-08 | 4.058E-06    |
| 2157 | 5.272E+04            | 1.557E-08 | 3.860E-06    |
| 2158 | 5.272E+04            | 1.481E-08 | 3.672E-06    |

continued

Table D-35. Emission Rate of 1,1-Dichloroethene from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 5.272E+04            | 1.408E-08 | 3.493E-06    |
| 2160 | 5.272E+04            | 1.340E-08 | 3.323E-06    |
| 2161 | 5.272E+04            | 1.274E-08 | 3.161E-06    |
| 2162 | 5.272E+04            | 1.212E-08 | 3.007E-06    |
| 2163 | 5.272E+04            | 1.153E-08 | 2.860E-06    |
| 2164 | 5.272E+04            | 1.097E-08 | 2.720E-06    |
| 2165 | 5.272E+04            | 1.043E-08 | 2.588E-06    |
| 2166 | 5.272E+04            | 9.925E-09 | 2.462E-06    |
| 2167 | 5.272E+04            | 9.441E-09 | 2.341E-06    |
| 2168 | 5.272E+04            | 8.980E-09 | 2.227E-06    |
| 2169 | 5.272E+04            | 8.542E-09 | 2.119E-06    |
| 2170 | 5.272E+04            | 8.126E-09 | 2.015E-06    |
| 2171 | 5.272E+04            | 7.730E-09 | 1.917E-06    |
| 2172 | 5.272E+04            | 7.353E-09 | 1.824E-06    |
| 2173 | 5.272E+04            | 6.994E-09 | 1.735E-06    |
| 2174 | 5.272E+04            | 6.653E-09 | 1.650E-06    |
| 2175 | 5.272E+04            | 6.328E-09 | 1.570E-06    |
| 2176 | 5.272E+04            | 6.020E-09 | 1.493E-06    |
| 2177 | 5.272E+04            | 5.726E-09 | 1.420E-06    |
| 2178 | 5.272E+04            | 5.447E-09 | 1.351E-06    |
| 2179 | 5.272E+04            | 5.181E-09 | 1.285E-06    |
| 2180 | 5.272E+04            | 4.929E-09 | 1.222E-06    |
| 2181 | 5.272E+04            | 4.688E-09 | 1.163E-06    |
| 2182 | 5.272E+04            | 4.460E-09 | 1.106E-06    |
| 2183 | 5.272E+04            | 4.242E-09 | 1.052E-06    |
| 2184 | 5.272E+04            | 4.035E-09 | 1.001E-06    |
| 2185 | 5.272E+04            | 3.838E-09 | 9.520E-07    |
| 2186 | 5.272E+04            | 3.651E-09 | 9.055E-07    |
| 2187 | 5.272E+04            | 3.473E-09 | 8.614E-07    |
| 2188 | 5.272E+04            | 3.304E-09 | 8.194E-07    |
| 2189 | 5.272E+04            | 3.143E-09 | 7.794E-07    |
| 2190 | 5.272E+04            | 2.989E-09 | 7.414E-07    |
| 2191 | 5.272E+04            | 2.844E-09 | 7.052E-07    |
| 2192 | 5.272E+04            | 2.705E-09 | 6.708E-07    |
| 2193 | 5.272E+04            | 2.573E-09 | 6.381E-07    |
| 2194 | 5.272E+04            | 2.447E-09 | 6.070E-07    |
| 2195 | 5.272E+04            | 2.328E-09 | 5.774E-07    |
| 2196 | 5.272E+04            | 2.215E-09 | 5.492E-07    |
| 2197 | 5.272E+04            | 2.107E-09 | 5.225E-07    |
| 2198 | 5.272E+04            | 2.004E-09 | 4.970E-07    |
| 2199 | 5.272E+04            | 1.906E-09 | 4.727E-07    |
| 2200 | 5.272E+04            | 1.813E-09 | 4.497E-07    |
| 2201 | 5.272E+04            | 1.725E-09 | 4.278E-07    |
| 2202 | 5.272E+04            | 1.641E-09 | 4.069E-07    |
| 2203 | 5.272E+04            | 1.561E-09 | 3.870E-07    |

Table D-36. Emission Rate of 1,2-Dichloroethane from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA3.PRM

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Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
Air Pollutant : 1,2-Dichloroethane (HAP/VOC)
Molecular Wt = 98.96      Concentration = 0.280000 ppmV
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
Model Results
=====
Year      Refuse In Place (Mg)      1,2-Dichloroethane (HAP/VOC) Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      7.872E-05      1.913E-02
1976      1.054E+04      1.536E-04      3.732E-02
1977      1.582E+04      2.248E-04      5.463E-02
1978      2.109E+04      2.926E-04      7.109E-02
1979      2.636E+04      3.571E-04      8.675E-02
1980      3.163E+04      4.184E-04      1.016E-01
1981      3.690E+04      4.767E-04      1.158E-01
1982      4.217E+04      5.322E-04      1.293E-01
1983      4.745E+04      5.849E-04      1.421E-01
1984      5.272E+04      6.351E-04      1.543E-01
1985      5.272E+04      6.042E-04      1.468E-01
1986      5.272E+04      5.747E-04      1.396E-01
1987      5.272E+04      5.467E-04      1.328E-01
1988      5.272E+04      5.200E-04      1.263E-01
1989      5.272E+04      4.946E-04      1.202E-01
1990      5.272E+04      4.705E-04      1.143E-01
1991      5.272E+04      4.476E-04      1.087E-01
1992      5.272E+04      4.257E-04      1.034E-01
1993      5.272E+04      4.050E-04      9.839E-02
1994      5.272E+04      3.852E-04      9.359E-02
1995      5.272E+04      3.664E-04      8.903E-02
1996      5.272E+04      3.486E-04      8.469E-02
1997      5.272E+04      3.316E-04      8.056E-02
1998      5.272E+04      3.154E-04      7.663E-02
1999      5.272E+04      3.000E-04      7.289E-02
2000      5.272E+04      2.854E-04      6.933E-02
2001      5.272E+04      2.715E-04      6.595E-02
2002      5.272E+04      2.582E-04      6.274E-02
2003      5.272E+04      2.456E-04      5.968E-02
2004      5.272E+04      2.337E-04      5.677E-02
2005      5.272E+04      2.223E-04      5.400E-02
2006      5.272E+04      2.114E-04      5.136E-02
2007      5.272E+04      2.011E-04      4.886E-02
2008      5.272E+04      1.913E-04      4.648E-02
2009      5.272E+04      1.820E-04      4.421E-02
2010      5.272E+04      1.731E-04      4.205E-02
2011      5.272E+04      1.647E-04      4.000E-02
2012      5.272E+04      1.566E-04      3.805E-02
2013      5.272E+04      1.490E-04      3.620E-02
2014      5.272E+04      1.417E-04      3.443E-02
2015      5.272E+04      1.348E-04      3.275E-02
2016      5.272E+04      1.282E-04      3.115E-02
2017      5.272E+04      1.220E-04      2.963E-02
2018      5.272E+04      1.160E-04      2.819E-02
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continued

Table D-36. Emission Rate of 1,2-Dichloroethane from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 5.272E+04            | 1.104E-04 | 2.681E-02    |
| 2020 | 5.272E+04            | 1.050E-04 | 2.551E-02    |
| 2021 | 5.272E+04            | 9.987E-05 | 2.426E-02    |
| 2022 | 5.272E+04            | 9.500E-05 | 2.308E-02    |
| 2023 | 5.272E+04            | 9.036E-05 | 2.195E-02    |
| 2024 | 5.272E+04            | 8.596E-05 | 2.088E-02    |
| 2025 | 5.272E+04            | 8.176E-05 | 1.986E-02    |
| 2026 | 5.272E+04            | 7.778E-05 | 1.890E-02    |
| 2027 | 5.272E+04            | 7.398E-05 | 1.797E-02    |
| 2028 | 5.272E+04            | 7.037E-05 | 1.710E-02    |
| 2029 | 5.272E+04            | 6.694E-05 | 1.626E-02    |
| 2030 | 5.272E+04            | 6.368E-05 | 1.547E-02    |
| 2031 | 5.272E+04            | 6.057E-05 | 1.472E-02    |
| 2032 | 5.272E+04            | 5.762E-05 | 1.400E-02    |
| 2033 | 5.272E+04            | 5.481E-05 | 1.332E-02    |
| 2034 | 5.272E+04            | 5.213E-05 | 1.267E-02    |
| 2035 | 5.272E+04            | 4.959E-05 | 1.205E-02    |
| 2036 | 5.272E+04            | 4.717E-05 | 1.146E-02    |
| 2037 | 5.272E+04            | 4.487E-05 | 1.090E-02    |
| 2038 | 5.272E+04            | 4.268E-05 | 1.037E-02    |
| 2039 | 5.272E+04            | 4.060E-05 | 9.864E-03    |
| 2040 | 5.272E+04            | 3.862E-05 | 9.383E-03    |
| 2041 | 5.272E+04            | 3.674E-05 | 8.926E-03    |
| 2042 | 5.272E+04            | 3.495E-05 | 8.490E-03    |
| 2043 | 5.272E+04            | 3.324E-05 | 8.076E-03    |
| 2044 | 5.272E+04            | 3.162E-05 | 7.682E-03    |
| 2045 | 5.272E+04            | 3.008E-05 | 7.308E-03    |
| 2046 | 5.272E+04            | 2.861E-05 | 6.951E-03    |
| 2047 | 5.272E+04            | 2.722E-05 | 6.612E-03    |
| 2048 | 5.272E+04            | 2.589E-05 | 6.290E-03    |
| 2049 | 5.272E+04            | 2.463E-05 | 5.983E-03    |
| 2050 | 5.272E+04            | 2.343E-05 | 5.691E-03    |
| 2051 | 5.272E+04            | 2.228E-05 | 5.414E-03    |
| 2052 | 5.272E+04            | 2.120E-05 | 5.150E-03    |
| 2053 | 5.272E+04            | 2.016E-05 | 4.899E-03    |
| 2054 | 5.272E+04            | 1.918E-05 | 4.660E-03    |
| 2055 | 5.272E+04            | 1.824E-05 | 4.432E-03    |
| 2056 | 5.272E+04            | 1.735E-05 | 4.216E-03    |
| 2057 | 5.272E+04            | 1.651E-05 | 4.011E-03    |
| 2058 | 5.272E+04            | 1.570E-05 | 3.815E-03    |
| 2059 | 5.272E+04            | 1.494E-05 | 3.629E-03    |
| 2060 | 5.272E+04            | 1.421E-05 | 3.452E-03    |
| 2061 | 5.272E+04            | 1.352E-05 | 3.284E-03    |
| 2062 | 5.272E+04            | 1.286E-05 | 3.123E-03    |
| 2063 | 5.272E+04            | 1.223E-05 | 2.971E-03    |
| 2064 | 5.272E+04            | 1.163E-05 | 2.826E-03    |
| 2065 | 5.272E+04            | 1.107E-05 | 2.688E-03    |
| 2066 | 5.272E+04            | 1.053E-05 | 2.557E-03    |
| 2067 | 5.272E+04            | 1.001E-05 | 2.433E-03    |
| 2068 | 5.272E+04            | 9.524E-06 | 2.314E-03    |
| 2069 | 5.272E+04            | 9.060E-06 | 2.201E-03    |
| 2070 | 5.272E+04            | 8.618E-06 | 2.094E-03    |
| 2071 | 5.272E+04            | 8.197E-06 | 1.992E-03    |
| 2072 | 5.272E+04            | 7.798E-06 | 1.894E-03    |
| 2073 | 5.272E+04            | 7.417E-06 | 1.802E-03    |
| 2074 | 5.272E+04            | 7.056E-06 | 1.714E-03    |
| 2075 | 5.272E+04            | 6.712E-06 | 1.631E-03    |
| 2076 | 5.272E+04            | 6.384E-06 | 1.551E-03    |
| 2077 | 5.272E+04            | 6.073E-06 | 1.475E-03    |
| 2078 | 5.272E+04            | 5.777E-06 | 1.403E-03    |
| 2079 | 5.272E+04            | 5.495E-06 | 1.335E-03    |
| 2080 | 5.272E+04            | 5.227E-06 | 1.270E-03    |
| 2081 | 5.272E+04            | 4.972E-06 | 1.208E-03    |
| 2082 | 5.272E+04            | 4.730E-06 | 1.149E-03    |
| 2083 | 5.272E+04            | 4.499E-06 | 1.093E-03    |
| 2084 | 5.272E+04            | 4.279E-06 | 1.040E-03    |
| 2085 | 5.272E+04            | 4.071E-06 | 9.890E-04    |
| 2086 | 5.272E+04            | 3.872E-06 | 9.408E-04    |
| 2087 | 5.272E+04            | 3.683E-06 | 8.949E-04    |
| 2088 | 5.272E+04            | 3.504E-06 | 8.512E-04    |

continued



Table D-36. Emission Rate of 1,2-Dichloroethane from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 5.272E+04            | 3.333E-06 | 8.097E-04    |
| 2090 | 5.272E+04            | 3.170E-06 | 7.702E-04    |
| 2091 | 5.272E+04            | 3.016E-06 | 7.327E-04    |
| 2092 | 5.272E+04            | 2.869E-06 | 6.969E-04    |
| 2093 | 5.272E+04            | 2.729E-06 | 6.629E-04    |
| 2094 | 5.272E+04            | 2.596E-06 | 6.306E-04    |
| 2095 | 5.272E+04            | 2.469E-06 | 5.999E-04    |
| 2096 | 5.272E+04            | 2.349E-06 | 5.706E-04    |
| 2097 | 5.272E+04            | 2.234E-06 | 5.428E-04    |
| 2098 | 5.272E+04            | 2.125E-06 | 5.163E-04    |
| 2099 | 5.272E+04            | 2.021E-06 | 4.911E-04    |
| 2100 | 5.272E+04            | 1.923E-06 | 4.672E-04    |
| 2101 | 5.272E+04            | 1.829E-06 | 4.444E-04    |
| 2102 | 5.272E+04            | 1.740E-06 | 4.227E-04    |
| 2103 | 5.272E+04            | 1.655E-06 | 4.021E-04    |
| 2104 | 5.272E+04            | 1.574E-06 | 3.825E-04    |
| 2105 | 5.272E+04            | 1.498E-06 | 3.638E-04    |
| 2106 | 5.272E+04            | 1.425E-06 | 3.461E-04    |
| 2107 | 5.272E+04            | 1.355E-06 | 3.292E-04    |
| 2108 | 5.272E+04            | 1.289E-06 | 3.132E-04    |
| 2109 | 5.272E+04            | 1.226E-06 | 2.979E-04    |
| 2110 | 5.272E+04            | 1.166E-06 | 2.834E-04    |
| 2111 | 5.272E+04            | 1.109E-06 | 2.695E-04    |
| 2112 | 5.272E+04            | 1.055E-06 | 2.564E-04    |
| 2113 | 5.272E+04            | 1.004E-06 | 2.439E-04    |
| 2114 | 5.272E+04            | 9.549E-07 | 2.320E-04    |
| 2115 | 5.272E+04            | 9.083E-07 | 2.207E-04    |
| 2116 | 5.272E+04            | 8.640E-07 | 2.099E-04    |
| 2117 | 5.272E+04            | 8.219E-07 | 1.997E-04    |
| 2118 | 5.272E+04            | 7.818E-07 | 1.899E-04    |
| 2119 | 5.272E+04            | 7.437E-07 | 1.807E-04    |
| 2120 | 5.272E+04            | 7.074E-07 | 1.719E-04    |
| 2121 | 5.272E+04            | 6.729E-07 | 1.635E-04    |
| 2122 | 5.272E+04            | 6.401E-07 | 1.555E-04    |
| 2123 | 5.272E+04            | 6.089E-07 | 1.479E-04    |
| 2124 | 5.272E+04            | 5.792E-07 | 1.407E-04    |
| 2125 | 5.272E+04            | 5.509E-07 | 1.338E-04    |
| 2126 | 5.272E+04            | 5.240E-07 | 1.273E-04    |
| 2127 | 5.272E+04            | 4.985E-07 | 1.211E-04    |
| 2128 | 5.272E+04            | 4.742E-07 | 1.152E-04    |
| 2129 | 5.272E+04            | 4.511E-07 | 1.096E-04    |
| 2130 | 5.272E+04            | 4.291E-07 | 1.042E-04    |
| 2131 | 5.272E+04            | 4.081E-07 | 9.916E-05    |
| 2132 | 5.272E+04            | 3.882E-07 | 9.432E-05    |
| 2133 | 5.272E+04            | 3.693E-07 | 8.972E-05    |
| 2134 | 5.272E+04            | 3.513E-07 | 8.534E-05    |
| 2135 | 5.272E+04            | 3.341E-07 | 8.118E-05    |
| 2136 | 5.272E+04            | 3.179E-07 | 7.722E-05    |
| 2137 | 5.272E+04            | 3.023E-07 | 7.346E-05    |
| 2138 | 5.272E+04            | 2.876E-07 | 6.987E-05    |
| 2139 | 5.272E+04            | 2.736E-07 | 6.647E-05    |
| 2140 | 5.272E+04            | 2.602E-07 | 6.322E-05    |
| 2141 | 5.272E+04            | 2.475E-07 | 6.014E-05    |
| 2142 | 5.272E+04            | 2.355E-07 | 5.721E-05    |
| 2143 | 5.272E+04            | 2.240E-07 | 5.442E-05    |
| 2144 | 5.272E+04            | 2.131E-07 | 5.176E-05    |
| 2145 | 5.272E+04            | 2.027E-07 | 4.924E-05    |
| 2146 | 5.272E+04            | 1.928E-07 | 4.684E-05    |
| 2147 | 5.272E+04            | 1.834E-07 | 4.455E-05    |
| 2148 | 5.272E+04            | 1.744E-07 | 4.238E-05    |
| 2149 | 5.272E+04            | 1.659E-07 | 4.031E-05    |
| 2150 | 5.272E+04            | 1.578E-07 | 3.835E-05    |
| 2151 | 5.272E+04            | 1.501E-07 | 3.648E-05    |
| 2152 | 5.272E+04            | 1.428E-07 | 3.470E-05    |
| 2153 | 5.272E+04            | 1.359E-07 | 3.301E-05    |
| 2154 | 5.272E+04            | 1.292E-07 | 3.140E-05    |
| 2155 | 5.272E+04            | 1.229E-07 | 2.987E-05    |
| 2156 | 5.272E+04            | 1.169E-07 | 2.841E-05    |
| 2157 | 5.272E+04            | 1.112E-07 | 2.702E-05    |
| 2158 | 5.272E+04            | 1.058E-07 | 2.571E-05    |

continued

Table D-36. Emission Rate of 1,2-Dichloroethane from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 5.272E+04            | 1.006E-07 | 2.445E-05    |
| 2160 | 5.272E+04            | 9.574E-08 | 2.326E-05    |
| 2161 | 5.272E+04            | 9.107E-08 | 2.212E-05    |
| 2162 | 5.272E+04            | 8.662E-08 | 2.105E-05    |
| 2163 | 5.272E+04            | 8.240E-08 | 2.002E-05    |
| 2164 | 5.272E+04            | 7.838E-08 | 1.904E-05    |
| 2165 | 5.272E+04            | 7.456E-08 | 1.811E-05    |
| 2166 | 5.272E+04            | 7.092E-08 | 1.723E-05    |
| 2167 | 5.272E+04            | 6.746E-08 | 1.639E-05    |
| 2168 | 5.272E+04            | 6.417E-08 | 1.559E-05    |
| 2169 | 5.272E+04            | 6.104E-08 | 1.483E-05    |
| 2170 | 5.272E+04            | 5.807E-08 | 1.411E-05    |
| 2171 | 5.272E+04            | 5.523E-08 | 1.342E-05    |
| 2172 | 5.272E+04            | 5.254E-08 | 1.276E-05    |
| 2173 | 5.272E+04            | 4.998E-08 | 1.214E-05    |
| 2174 | 5.272E+04            | 4.754E-08 | 1.155E-05    |
| 2175 | 5.272E+04            | 4.522E-08 | 1.099E-05    |
| 2176 | 5.272E+04            | 4.302E-08 | 1.045E-05    |
| 2177 | 5.272E+04            | 4.092E-08 | 9.941E-06    |
| 2178 | 5.272E+04            | 3.892E-08 | 9.456E-06    |
| 2179 | 5.272E+04            | 3.702E-08 | 8.995E-06    |
| 2180 | 5.272E+04            | 3.522E-08 | 8.557E-06    |
| 2181 | 5.272E+04            | 3.350E-08 | 8.139E-06    |
| 2182 | 5.272E+04            | 3.187E-08 | 7.742E-06    |
| 2183 | 5.272E+04            | 3.031E-08 | 7.365E-06    |
| 2184 | 5.272E+04            | 2.883E-08 | 7.006E-06    |
| 2185 | 5.272E+04            | 2.743E-08 | 6.664E-06    |
| 2186 | 5.272E+04            | 2.609E-08 | 6.339E-06    |
| 2187 | 5.272E+04            | 2.482E-08 | 6.030E-06    |
| 2188 | 5.272E+04            | 2.361E-08 | 5.736E-06    |
| 2189 | 5.272E+04            | 2.246E-08 | 5.456E-06    |
| 2190 | 5.272E+04            | 2.136E-08 | 5.190E-06    |
| 2191 | 5.272E+04            | 2.032E-08 | 4.937E-06    |
| 2192 | 5.272E+04            | 1.933E-08 | 4.696E-06    |
| 2193 | 5.272E+04            | 1.839E-08 | 4.467E-06    |
| 2194 | 5.272E+04            | 1.749E-08 | 4.249E-06    |
| 2195 | 5.272E+04            | 1.664E-08 | 4.042E-06    |
| 2196 | 5.272E+04            | 1.582E-08 | 3.845E-06    |
| 2197 | 5.272E+04            | 1.505E-08 | 3.657E-06    |
| 2198 | 5.272E+04            | 1.432E-08 | 3.479E-06    |
| 2199 | 5.272E+04            | 1.362E-08 | 3.309E-06    |
| 2200 | 5.272E+04            | 1.296E-08 | 3.148E-06    |
| 2201 | 5.272E+04            | 1.232E-08 | 2.994E-06    |
| 2202 | 5.272E+04            | 1.172E-08 | 2.848E-06    |
| 2203 | 5.272E+04            | 1.115E-08 | 2.709E-06    |

Table D-37. Emission Rate of Benzene from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA3.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
Air Pollutant : Benzene (HAP/VOC)
Molecular Wt = 78.12      Concentration = 0.410000 ppmV
=====
                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
                          Model Results
=====
Year      Refuse In Place (Mg)      Benzene (HAP/VOC) Emission Rate
      (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      9.100E-05      2.801E-02
1976      1.054E+04      1.776E-04      5.465E-02
1977      1.582E+04      2.599E-04      7.999E-02
1978      2.109E+04      3.382E-04      1.041E-01
1979      2.636E+04      4.127E-04      1.270E-01
1980      3.163E+04      4.836E-04      1.488E-01
1981      3.690E+04      5.510E-04      1.696E-01
1982      4.217E+04      6.151E-04      1.893E-01
1983      4.745E+04      6.761E-04      2.081E-01
1984      5.272E+04      7.342E-04      2.259E-01
1985      5.272E+04      6.984E-04      2.149E-01
1986      5.272E+04      6.643E-04      2.044E-01
1987      5.272E+04      6.319E-04      1.945E-01
1988      5.272E+04      6.011E-04      1.850E-01
1989      5.272E+04      5.718E-04      1.760E-01
1990      5.272E+04      5.439E-04      1.674E-01
1991      5.272E+04      5.174E-04      1.592E-01
1992      5.272E+04      4.921E-04      1.515E-01
1993      5.272E+04      4.681E-04      1.441E-01
1994      5.272E+04      4.453E-04      1.370E-01
1995      5.272E+04      4.236E-04      1.304E-01
1996      5.272E+04      4.029E-04      1.240E-01
1997      5.272E+04      3.833E-04      1.180E-01
1998      5.272E+04      3.646E-04      1.122E-01
1999      5.272E+04      3.468E-04      1.067E-01
2000      5.272E+04      3.299E-04      1.015E-01
2001      5.272E+04      3.138E-04      9.657E-02
2002      5.272E+04      2.985E-04      9.186E-02
2003      5.272E+04      2.839E-04      8.738E-02
2004      5.272E+04      2.701E-04      8.312E-02
2005      5.272E+04      2.569E-04      7.907E-02
2006      5.272E+04      2.444E-04      7.521E-02
2007      5.272E+04      2.325E-04      7.154E-02
2008      5.272E+04      2.211E-04      6.805E-02
2009      5.272E+04      2.103E-04      6.474E-02
2010      5.272E+04      2.001E-04      6.158E-02
2011      5.272E+04      1.903E-04      5.858E-02
2012      5.272E+04      1.810E-04      5.572E-02
2013      5.272E+04      1.722E-04      5.300E-02
2014      5.272E+04      1.638E-04      5.042E-02
2015      5.272E+04      1.558E-04      4.796E-02
2016      5.272E+04      1.482E-04      4.562E-02
2017      5.272E+04      1.410E-04      4.339E-02
2018      5.272E+04      1.341E-04      4.128E-02
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continued

Table D-37. Emission Rate of Benzene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 5.272E+04            | 1.276E-04 | 3.926E-02    |
| 2020 | 5.272E+04            | 1.214E-04 | 3.735E-02    |
| 2021 | 5.272E+04            | 1.154E-04 | 3.553E-02    |
| 2022 | 5.272E+04            | 1.098E-04 | 3.379E-02    |
| 2023 | 5.272E+04            | 1.045E-04 | 3.215E-02    |
| 2024 | 5.272E+04            | 9.936E-05 | 3.058E-02    |
| 2025 | 5.272E+04            | 9.451E-05 | 2.909E-02    |
| 2026 | 5.272E+04            | 8.990E-05 | 2.767E-02    |
| 2027 | 5.272E+04            | 8.552E-05 | 2.632E-02    |
| 2028 | 5.272E+04            | 8.135E-05 | 2.504E-02    |
| 2029 | 5.272E+04            | 7.738E-05 | 2.381E-02    |
| 2030 | 5.272E+04            | 7.361E-05 | 2.265E-02    |
| 2031 | 5.272E+04            | 7.002E-05 | 2.155E-02    |
| 2032 | 5.272E+04            | 6.660E-05 | 2.050E-02    |
| 2033 | 5.272E+04            | 6.335E-05 | 1.950E-02    |
| 2034 | 5.272E+04            | 6.026E-05 | 1.855E-02    |
| 2035 | 5.272E+04            | 5.732E-05 | 1.764E-02    |
| 2036 | 5.272E+04            | 5.453E-05 | 1.678E-02    |
| 2037 | 5.272E+04            | 5.187E-05 | 1.596E-02    |
| 2038 | 5.272E+04            | 4.934E-05 | 1.519E-02    |
| 2039 | 5.272E+04            | 4.693E-05 | 1.444E-02    |
| 2040 | 5.272E+04            | 4.464E-05 | 1.374E-02    |
| 2041 | 5.272E+04            | 4.247E-05 | 1.307E-02    |
| 2042 | 5.272E+04            | 4.040E-05 | 1.243E-02    |
| 2043 | 5.272E+04            | 3.843E-05 | 1.183E-02    |
| 2044 | 5.272E+04            | 3.655E-05 | 1.125E-02    |
| 2045 | 5.272E+04            | 3.477E-05 | 1.070E-02    |
| 2046 | 5.272E+04            | 3.307E-05 | 1.018E-02    |
| 2047 | 5.272E+04            | 3.146E-05 | 9.682E-03    |
| 2048 | 5.272E+04            | 2.993E-05 | 9.210E-03    |
| 2049 | 5.272E+04            | 2.847E-05 | 8.761E-03    |
| 2050 | 5.272E+04            | 2.708E-05 | 8.334E-03    |
| 2051 | 5.272E+04            | 2.576E-05 | 7.927E-03    |
| 2052 | 5.272E+04            | 2.450E-05 | 7.541E-03    |
| 2053 | 5.272E+04            | 2.331E-05 | 7.173E-03    |
| 2054 | 5.272E+04            | 2.217E-05 | 6.823E-03    |
| 2055 | 5.272E+04            | 2.109E-05 | 6.490E-03    |
| 2056 | 5.272E+04            | 2.006E-05 | 6.174E-03    |
| 2057 | 5.272E+04            | 1.908E-05 | 5.873E-03    |
| 2058 | 5.272E+04            | 1.815E-05 | 5.586E-03    |
| 2059 | 5.272E+04            | 1.727E-05 | 5.314E-03    |
| 2060 | 5.272E+04            | 1.642E-05 | 5.055E-03    |
| 2061 | 5.272E+04            | 1.562E-05 | 4.808E-03    |
| 2062 | 5.272E+04            | 1.486E-05 | 4.574E-03    |
| 2063 | 5.272E+04            | 1.414E-05 | 4.351E-03    |
| 2064 | 5.272E+04            | 1.345E-05 | 4.138E-03    |
| 2065 | 5.272E+04            | 1.279E-05 | 3.937E-03    |
| 2066 | 5.272E+04            | 1.217E-05 | 3.745E-03    |
| 2067 | 5.272E+04            | 1.157E-05 | 3.562E-03    |
| 2068 | 5.272E+04            | 1.101E-05 | 3.388E-03    |
| 2069 | 5.272E+04            | 1.047E-05 | 3.223E-03    |
| 2070 | 5.272E+04            | 9.961E-06 | 3.066E-03    |
| 2071 | 5.272E+04            | 9.476E-06 | 2.916E-03    |
| 2072 | 5.272E+04            | 9.014E-06 | 2.774E-03    |
| 2073 | 5.272E+04            | 8.574E-06 | 2.639E-03    |
| 2074 | 5.272E+04            | 8.156E-06 | 2.510E-03    |
| 2075 | 5.272E+04            | 7.758E-06 | 2.388E-03    |
| 2076 | 5.272E+04            | 7.380E-06 | 2.271E-03    |
| 2077 | 5.272E+04            | 7.020E-06 | 2.160E-03    |
| 2078 | 5.272E+04            | 6.677E-06 | 2.055E-03    |
| 2079 | 5.272E+04            | 6.352E-06 | 1.955E-03    |
| 2080 | 5.272E+04            | 6.042E-06 | 1.860E-03    |
| 2081 | 5.272E+04            | 5.747E-06 | 1.769E-03    |
| 2082 | 5.272E+04            | 5.467E-06 | 1.683E-03    |
| 2083 | 5.272E+04            | 5.200E-06 | 1.600E-03    |
| 2084 | 5.272E+04            | 4.947E-06 | 1.522E-03    |
| 2085 | 5.272E+04            | 4.705E-06 | 1.448E-03    |
| 2086 | 5.272E+04            | 4.476E-06 | 1.378E-03    |
| 2087 | 5.272E+04            | 4.258E-06 | 1.310E-03    |
| 2088 | 5.272E+04            | 4.050E-06 | 1.246E-03    |

continued

Table D-37. Emission Rate of Benzene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 5.272E+04            | 3.853E-06 | 1.186E-03    |
| 2090 | 5.272E+04            | 3.665E-06 | 1.128E-03    |
| 2091 | 5.272E+04            | 3.486E-06 | 1.073E-03    |
| 2092 | 5.272E+04            | 3.316E-06 | 1.021E-03    |
| 2093 | 5.272E+04            | 3.154E-06 | 9.707E-04    |
| 2094 | 5.272E+04            | 3.000E-06 | 9.234E-04    |
| 2095 | 5.272E+04            | 2.854E-06 | 8.784E-04    |
| 2096 | 5.272E+04            | 2.715E-06 | 8.355E-04    |
| 2097 | 5.272E+04            | 2.582E-06 | 7.948E-04    |
| 2098 | 5.272E+04            | 2.456E-06 | 7.560E-04    |
| 2099 | 5.272E+04            | 2.337E-06 | 7.191E-04    |
| 2100 | 5.272E+04            | 2.223E-06 | 6.841E-04    |
| 2101 | 5.272E+04            | 2.114E-06 | 6.507E-04    |
| 2102 | 5.272E+04            | 2.011E-06 | 6.190E-04    |
| 2103 | 5.272E+04            | 1.913E-06 | 5.888E-04    |
| 2104 | 5.272E+04            | 1.820E-06 | 5.601E-04    |
| 2105 | 5.272E+04            | 1.731E-06 | 5.328E-04    |
| 2106 | 5.272E+04            | 1.647E-06 | 5.068E-04    |
| 2107 | 5.272E+04            | 1.566E-06 | 4.821E-04    |
| 2108 | 5.272E+04            | 1.490E-06 | 4.585E-04    |
| 2109 | 5.272E+04            | 1.417E-06 | 4.362E-04    |
| 2110 | 5.272E+04            | 1.348E-06 | 4.149E-04    |
| 2111 | 5.272E+04            | 1.282E-06 | 3.947E-04    |
| 2112 | 5.272E+04            | 1.220E-06 | 3.754E-04    |
| 2113 | 5.272E+04            | 1.160E-06 | 3.571E-04    |
| 2114 | 5.272E+04            | 1.104E-06 | 3.397E-04    |
| 2115 | 5.272E+04            | 1.050E-06 | 3.231E-04    |
| 2116 | 5.272E+04            | 9.987E-07 | 3.074E-04    |
| 2117 | 5.272E+04            | 9.500E-07 | 2.924E-04    |
| 2118 | 5.272E+04            | 9.037E-07 | 2.781E-04    |
| 2119 | 5.272E+04            | 8.596E-07 | 2.646E-04    |
| 2120 | 5.272E+04            | 8.177E-07 | 2.517E-04    |
| 2121 | 5.272E+04            | 7.778E-07 | 2.394E-04    |
| 2122 | 5.272E+04            | 7.399E-07 | 2.277E-04    |
| 2123 | 5.272E+04            | 7.038E-07 | 2.166E-04    |
| 2124 | 5.272E+04            | 6.695E-07 | 2.060E-04    |
| 2125 | 5.272E+04            | 6.368E-07 | 1.960E-04    |
| 2126 | 5.272E+04            | 6.058E-07 | 1.864E-04    |
| 2127 | 5.272E+04            | 5.762E-07 | 1.773E-04    |
| 2128 | 5.272E+04            | 5.481E-07 | 1.687E-04    |
| 2129 | 5.272E+04            | 5.214E-07 | 1.605E-04    |
| 2130 | 5.272E+04            | 4.960E-07 | 1.526E-04    |
| 2131 | 5.272E+04            | 4.718E-07 | 1.452E-04    |
| 2132 | 5.272E+04            | 4.488E-07 | 1.381E-04    |
| 2133 | 5.272E+04            | 4.269E-07 | 1.314E-04    |
| 2134 | 5.272E+04            | 4.061E-07 | 1.250E-04    |
| 2135 | 5.272E+04            | 3.862E-07 | 1.189E-04    |
| 2136 | 5.272E+04            | 3.674E-07 | 1.131E-04    |
| 2137 | 5.272E+04            | 3.495E-07 | 1.076E-04    |
| 2138 | 5.272E+04            | 3.324E-07 | 1.023E-04    |
| 2139 | 5.272E+04            | 3.162E-07 | 9.733E-05    |
| 2140 | 5.272E+04            | 3.008E-07 | 9.258E-05    |
| 2141 | 5.272E+04            | 2.861E-07 | 8.806E-05    |
| 2142 | 5.272E+04            | 2.722E-07 | 8.377E-05    |
| 2143 | 5.272E+04            | 2.589E-07 | 7.968E-05    |
| 2144 | 5.272E+04            | 2.463E-07 | 7.580E-05    |
| 2145 | 5.272E+04            | 2.343E-07 | 7.210E-05    |
| 2146 | 5.272E+04            | 2.228E-07 | 6.858E-05    |
| 2147 | 5.272E+04            | 2.120E-07 | 6.524E-05    |
| 2148 | 5.272E+04            | 2.016E-07 | 6.206E-05    |
| 2149 | 5.272E+04            | 1.918E-07 | 5.903E-05    |
| 2150 | 5.272E+04            | 1.825E-07 | 5.615E-05    |
| 2151 | 5.272E+04            | 1.736E-07 | 5.341E-05    |
| 2152 | 5.272E+04            | 1.651E-07 | 5.081E-05    |
| 2153 | 5.272E+04            | 1.570E-07 | 4.833E-05    |
| 2154 | 5.272E+04            | 1.494E-07 | 4.597E-05    |
| 2155 | 5.272E+04            | 1.421E-07 | 4.373E-05    |
| 2156 | 5.272E+04            | 1.352E-07 | 4.160E-05    |
| 2157 | 5.272E+04            | 1.286E-07 | 3.957E-05    |
| 2158 | 5.272E+04            | 1.223E-07 | 3.764E-05    |

continued

Table D-37. Emission Rate of Benzene from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 5.272E+04            | 1.163E-07 | 3.580E-05    |
| 2160 | 5.272E+04            | 1.107E-07 | 3.406E-05    |
| 2161 | 5.272E+04            | 1.053E-07 | 3.240E-05    |
| 2162 | 5.272E+04            | 1.001E-07 | 3.082E-05    |
| 2163 | 5.272E+04            | 9.525E-08 | 2.931E-05    |
| 2164 | 5.272E+04            | 9.060E-08 | 2.788E-05    |
| 2165 | 5.272E+04            | 8.618E-08 | 2.652E-05    |
| 2166 | 5.272E+04            | 8.198E-08 | 2.523E-05    |
| 2167 | 5.272E+04            | 7.798E-08 | 2.400E-05    |
| 2168 | 5.272E+04            | 7.418E-08 | 2.283E-05    |
| 2169 | 5.272E+04            | 7.056E-08 | 2.172E-05    |
| 2170 | 5.272E+04            | 6.712E-08 | 2.066E-05    |
| 2171 | 5.272E+04            | 6.385E-08 | 1.965E-05    |
| 2172 | 5.272E+04            | 6.073E-08 | 1.869E-05    |
| 2173 | 5.272E+04            | 5.777E-08 | 1.778E-05    |
| 2174 | 5.272E+04            | 5.495E-08 | 1.691E-05    |
| 2175 | 5.272E+04            | 5.227E-08 | 1.609E-05    |
| 2176 | 5.272E+04            | 4.972E-08 | 1.530E-05    |
| 2177 | 5.272E+04            | 4.730E-08 | 1.456E-05    |
| 2178 | 5.272E+04            | 4.499E-08 | 1.385E-05    |
| 2179 | 5.272E+04            | 4.280E-08 | 1.317E-05    |
| 2180 | 5.272E+04            | 4.071E-08 | 1.253E-05    |
| 2181 | 5.272E+04            | 3.872E-08 | 1.192E-05    |
| 2182 | 5.272E+04            | 3.684E-08 | 1.134E-05    |
| 2183 | 5.272E+04            | 3.504E-08 | 1.078E-05    |
| 2184 | 5.272E+04            | 3.333E-08 | 1.026E-05    |
| 2185 | 5.272E+04            | 3.171E-08 | 9.758E-06    |
| 2186 | 5.272E+04            | 3.016E-08 | 9.282E-06    |
| 2187 | 5.272E+04            | 2.869E-08 | 8.829E-06    |
| 2188 | 5.272E+04            | 2.729E-08 | 8.399E-06    |
| 2189 | 5.272E+04            | 2.596E-08 | 7.989E-06    |
| 2190 | 5.272E+04            | 2.469E-08 | 7.599E-06    |
| 2191 | 5.272E+04            | 2.349E-08 | 7.229E-06    |
| 2192 | 5.272E+04            | 2.234E-08 | 6.876E-06    |
| 2193 | 5.272E+04            | 2.125E-08 | 6.541E-06    |
| 2194 | 5.272E+04            | 2.022E-08 | 6.222E-06    |
| 2195 | 5.272E+04            | 1.923E-08 | 5.918E-06    |
| 2196 | 5.272E+04            | 1.829E-08 | 5.630E-06    |
| 2197 | 5.272E+04            | 1.740E-08 | 5.355E-06    |
| 2198 | 5.272E+04            | 1.655E-08 | 5.094E-06    |
| 2199 | 5.272E+04            | 1.574E-08 | 4.846E-06    |
| 2200 | 5.272E+04            | 1.498E-08 | 4.609E-06    |
| 2201 | 5.272E+04            | 1.425E-08 | 4.384E-06    |
| 2202 | 5.272E+04            | 1.355E-08 | 4.171E-06    |
| 2203 | 5.272E+04            | 1.289E-08 | 3.967E-06    |

Table D-38. Emission Rate of Chlorobenzene from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA3.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
Air Pollutant : Chlorobenzene (HAP/VOC)
Molecular Wt = 112.56      Concentration =      0.380000 ppmV
=====
                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
                          Model Results
=====
Year      Refuse In Place (Mg)      Chlorobenzene (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      1.215E-04      2.596E-02
1976      1.054E+04      2.371E-04      5.065E-02
1977      1.582E+04      3.471E-04      7.414E-02
1978      2.109E+04      4.517E-04      9.648E-02
1979      2.636E+04      5.512E-04      1.177E-01
1980      3.163E+04      6.458E-04      1.379E-01
1981      3.690E+04      7.358E-04      1.572E-01
1982      4.217E+04      8.215E-04      1.755E-01
1983      4.745E+04      9.029E-04      1.929E-01
1984      5.272E+04      9.804E-04      2.094E-01
1985      5.272E+04      9.326E-04      1.992E-01
1986      5.272E+04      8.871E-04      1.895E-01
1987      5.272E+04      8.439E-04      1.802E-01
1988      5.272E+04      8.027E-04      1.715E-01
1989      5.272E+04      7.636E-04      1.631E-01
1990      5.272E+04      7.263E-04      1.551E-01
1991      5.272E+04      6.909E-04      1.476E-01
1992      5.272E+04      6.572E-04      1.404E-01
1993      5.272E+04      6.251E-04      1.335E-01
1994      5.272E+04      5.947E-04      1.270E-01
1995      5.272E+04      5.657E-04      1.208E-01
1996      5.272E+04      5.381E-04      1.149E-01
1997      5.272E+04      5.118E-04      1.093E-01
1998      5.272E+04      4.869E-04      1.040E-01
1999      5.272E+04      4.631E-04      9.892E-02
2000      5.272E+04      4.405E-04      9.410E-02
2001      5.272E+04      4.190E-04      8.951E-02
2002      5.272E+04      3.986E-04      8.514E-02
2003      5.272E+04      3.792E-04      8.099E-02
2004      5.272E+04      3.607E-04      7.704E-02
2005      5.272E+04      3.431E-04      7.328E-02
2006      5.272E+04      3.264E-04      6.971E-02
2007      5.272E+04      3.104E-04      6.631E-02
2008      5.272E+04      2.953E-04      6.307E-02
2009      5.272E+04      2.809E-04      6.000E-02
2010      5.272E+04      2.672E-04      5.707E-02
2011      5.272E+04      2.542E-04      5.429E-02
2012      5.272E+04      2.418E-04      5.164E-02
2013      5.272E+04      2.300E-04      4.912E-02
2014      5.272E+04      2.188E-04      4.673E-02
2015      5.272E+04      2.081E-04      4.445E-02
2016      5.272E+04      1.979E-04      4.228E-02
2017      5.272E+04      1.883E-04      4.022E-02
2018      5.272E+04      1.791E-04      3.826E-02
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continued

Table D-38. Emission Rate of Chlorobenzene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 5.272E+04            | 1.704E-04 | 3.639E-02    |
| 2020 | 5.272E+04            | 1.621E-04 | 3.462E-02    |
| 2021 | 5.272E+04            | 1.542E-04 | 3.293E-02    |
| 2022 | 5.272E+04            | 1.466E-04 | 3.132E-02    |
| 2023 | 5.272E+04            | 1.395E-04 | 2.979E-02    |
| 2024 | 5.272E+04            | 1.327E-04 | 2.834E-02    |
| 2025 | 5.272E+04            | 1.262E-04 | 2.696E-02    |
| 2026 | 5.272E+04            | 1.201E-04 | 2.564E-02    |
| 2027 | 5.272E+04            | 1.142E-04 | 2.439E-02    |
| 2028 | 5.272E+04            | 1.086E-04 | 2.320E-02    |
| 2029 | 5.272E+04            | 1.033E-04 | 2.207E-02    |
| 2030 | 5.272E+04            | 9.830E-05 | 2.100E-02    |
| 2031 | 5.272E+04            | 9.350E-05 | 1.997E-02    |
| 2032 | 5.272E+04            | 8.894E-05 | 1.900E-02    |
| 2033 | 5.272E+04            | 8.460E-05 | 1.807E-02    |
| 2034 | 5.272E+04            | 8.048E-05 | 1.719E-02    |
| 2035 | 5.272E+04            | 7.655E-05 | 1.635E-02    |
| 2036 | 5.272E+04            | 7.282E-05 | 1.555E-02    |
| 2037 | 5.272E+04            | 6.927E-05 | 1.480E-02    |
| 2038 | 5.272E+04            | 6.589E-05 | 1.407E-02    |
| 2039 | 5.272E+04            | 6.268E-05 | 1.339E-02    |
| 2040 | 5.272E+04            | 5.962E-05 | 1.273E-02    |
| 2041 | 5.272E+04            | 5.671E-05 | 1.211E-02    |
| 2042 | 5.272E+04            | 5.395E-05 | 1.152E-02    |
| 2043 | 5.272E+04            | 5.131E-05 | 1.096E-02    |
| 2044 | 5.272E+04            | 4.881E-05 | 1.043E-02    |
| 2045 | 5.272E+04            | 4.643E-05 | 9.918E-03    |
| 2046 | 5.272E+04            | 4.417E-05 | 9.434E-03    |
| 2047 | 5.272E+04            | 4.201E-05 | 8.974E-03    |
| 2048 | 5.272E+04            | 3.996E-05 | 8.536E-03    |
| 2049 | 5.272E+04            | 3.802E-05 | 8.120E-03    |
| 2050 | 5.272E+04            | 3.616E-05 | 7.724E-03    |
| 2051 | 5.272E+04            | 3.440E-05 | 7.347E-03    |
| 2052 | 5.272E+04            | 3.272E-05 | 6.989E-03    |
| 2053 | 5.272E+04            | 3.112E-05 | 6.648E-03    |
| 2054 | 5.272E+04            | 2.961E-05 | 6.324E-03    |
| 2055 | 5.272E+04            | 2.816E-05 | 6.015E-03    |
| 2056 | 5.272E+04            | 2.679E-05 | 5.722E-03    |
| 2057 | 5.272E+04            | 2.548E-05 | 5.443E-03    |
| 2058 | 5.272E+04            | 2.424E-05 | 5.178E-03    |
| 2059 | 5.272E+04            | 2.306E-05 | 4.925E-03    |
| 2060 | 5.272E+04            | 2.193E-05 | 4.685E-03    |
| 2061 | 5.272E+04            | 2.086E-05 | 4.456E-03    |
| 2062 | 5.272E+04            | 1.985E-05 | 4.239E-03    |
| 2063 | 5.272E+04            | 1.888E-05 | 4.032E-03    |
| 2064 | 5.272E+04            | 1.796E-05 | 3.836E-03    |
| 2065 | 5.272E+04            | 1.708E-05 | 3.649E-03    |
| 2066 | 5.272E+04            | 1.625E-05 | 3.471E-03    |
| 2067 | 5.272E+04            | 1.546E-05 | 3.301E-03    |
| 2068 | 5.272E+04            | 1.470E-05 | 3.140E-03    |
| 2069 | 5.272E+04            | 1.398E-05 | 2.987E-03    |
| 2070 | 5.272E+04            | 1.330E-05 | 2.841E-03    |
| 2071 | 5.272E+04            | 1.265E-05 | 2.703E-03    |
| 2072 | 5.272E+04            | 1.204E-05 | 2.571E-03    |
| 2073 | 5.272E+04            | 1.145E-05 | 2.446E-03    |
| 2074 | 5.272E+04            | 1.089E-05 | 2.326E-03    |
| 2075 | 5.272E+04            | 1.036E-05 | 2.213E-03    |
| 2076 | 5.272E+04            | 9.855E-06 | 2.105E-03    |
| 2077 | 5.272E+04            | 9.374E-06 | 2.002E-03    |
| 2078 | 5.272E+04            | 8.917E-06 | 1.905E-03    |
| 2079 | 5.272E+04            | 8.482E-06 | 1.812E-03    |
| 2080 | 5.272E+04            | 8.069E-06 | 1.723E-03    |
| 2081 | 5.272E+04            | 7.675E-06 | 1.639E-03    |
| 2082 | 5.272E+04            | 7.301E-06 | 1.559E-03    |
| 2083 | 5.272E+04            | 6.945E-06 | 1.483E-03    |
| 2084 | 5.272E+04            | 6.606E-06 | 1.411E-03    |
| 2085 | 5.272E+04            | 6.284E-06 | 1.342E-03    |
| 2086 | 5.272E+04            | 5.977E-06 | 1.277E-03    |
| 2087 | 5.272E+04            | 5.686E-06 | 1.214E-03    |
| 2088 | 5.272E+04            | 5.409E-06 | 1.155E-03    |

continued



Table D-38. Emission Rate of Chlorobenzene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 5.272E+04            | 5.145E-06 | 1.099E-03    |
| 2090 | 5.272E+04            | 4.894E-06 | 1.045E-03    |
| 2091 | 5.272E+04            | 4.655E-06 | 9.943E-04    |
| 2092 | 5.272E+04            | 4.428E-06 | 9.458E-04    |
| 2093 | 5.272E+04            | 4.212E-06 | 8.997E-04    |
| 2094 | 5.272E+04            | 4.007E-06 | 8.558E-04    |
| 2095 | 5.272E+04            | 3.811E-06 | 8.141E-04    |
| 2096 | 5.272E+04            | 3.625E-06 | 7.744E-04    |
| 2097 | 5.272E+04            | 3.449E-06 | 7.366E-04    |
| 2098 | 5.272E+04            | 3.280E-06 | 7.007E-04    |
| 2099 | 5.272E+04            | 3.120E-06 | 6.665E-04    |
| 2100 | 5.272E+04            | 2.968E-06 | 6.340E-04    |
| 2101 | 5.272E+04            | 2.824E-06 | 6.031E-04    |
| 2102 | 5.272E+04            | 2.686E-06 | 5.737E-04    |
| 2103 | 5.272E+04            | 2.555E-06 | 5.457E-04    |
| 2104 | 5.272E+04            | 2.430E-06 | 5.191E-04    |
| 2105 | 5.272E+04            | 2.312E-06 | 4.938E-04    |
| 2106 | 5.272E+04            | 2.199E-06 | 4.697E-04    |
| 2107 | 5.272E+04            | 2.092E-06 | 4.468E-04    |
| 2108 | 5.272E+04            | 1.990E-06 | 4.250E-04    |
| 2109 | 5.272E+04            | 1.893E-06 | 4.043E-04    |
| 2110 | 5.272E+04            | 1.800E-06 | 3.846E-04    |
| 2111 | 5.272E+04            | 1.713E-06 | 3.658E-04    |
| 2112 | 5.272E+04            | 1.629E-06 | 3.480E-04    |
| 2113 | 5.272E+04            | 1.550E-06 | 3.310E-04    |
| 2114 | 5.272E+04            | 1.474E-06 | 3.148E-04    |
| 2115 | 5.272E+04            | 1.402E-06 | 2.995E-04    |
| 2116 | 5.272E+04            | 1.334E-06 | 2.849E-04    |
| 2117 | 5.272E+04            | 1.269E-06 | 2.710E-04    |
| 2118 | 5.272E+04            | 1.207E-06 | 2.578E-04    |
| 2119 | 5.272E+04            | 1.148E-06 | 2.452E-04    |
| 2120 | 5.272E+04            | 1.092E-06 | 2.332E-04    |
| 2121 | 5.272E+04            | 1.039E-06 | 2.219E-04    |
| 2122 | 5.272E+04            | 9.881E-07 | 2.110E-04    |
| 2123 | 5.272E+04            | 9.399E-07 | 2.008E-04    |
| 2124 | 5.272E+04            | 8.940E-07 | 1.910E-04    |
| 2125 | 5.272E+04            | 8.504E-07 | 1.816E-04    |
| 2126 | 5.272E+04            | 8.089E-07 | 1.728E-04    |
| 2127 | 5.272E+04            | 7.695E-07 | 1.644E-04    |
| 2128 | 5.272E+04            | 7.320E-07 | 1.563E-04    |
| 2129 | 5.272E+04            | 6.963E-07 | 1.487E-04    |
| 2130 | 5.272E+04            | 6.623E-07 | 1.415E-04    |
| 2131 | 5.272E+04            | 6.300E-07 | 1.346E-04    |
| 2132 | 5.272E+04            | 5.993E-07 | 1.280E-04    |
| 2133 | 5.272E+04            | 5.701E-07 | 1.218E-04    |
| 2134 | 5.272E+04            | 5.423E-07 | 1.158E-04    |
| 2135 | 5.272E+04            | 5.158E-07 | 1.102E-04    |
| 2136 | 5.272E+04            | 4.907E-07 | 1.048E-04    |
| 2137 | 5.272E+04            | 4.667E-07 | 9.969E-05    |
| 2138 | 5.272E+04            | 4.440E-07 | 9.483E-05    |
| 2139 | 5.272E+04            | 4.223E-07 | 9.020E-05    |
| 2140 | 5.272E+04            | 4.017E-07 | 8.581E-05    |
| 2141 | 5.272E+04            | 3.821E-07 | 8.162E-05    |
| 2142 | 5.272E+04            | 3.635E-07 | 7.764E-05    |
| 2143 | 5.272E+04            | 3.458E-07 | 7.385E-05    |
| 2144 | 5.272E+04            | 3.289E-07 | 7.025E-05    |
| 2145 | 5.272E+04            | 3.129E-07 | 6.683E-05    |
| 2146 | 5.272E+04            | 2.976E-07 | 6.357E-05    |
| 2147 | 5.272E+04            | 2.831E-07 | 6.047E-05    |
| 2148 | 5.272E+04            | 2.693E-07 | 5.752E-05    |
| 2149 | 5.272E+04            | 2.561E-07 | 5.471E-05    |
| 2150 | 5.272E+04            | 2.437E-07 | 5.204E-05    |
| 2151 | 5.272E+04            | 2.318E-07 | 4.951E-05    |
| 2152 | 5.272E+04            | 2.205E-07 | 4.709E-05    |
| 2153 | 5.272E+04            | 2.097E-07 | 4.479E-05    |
| 2154 | 5.272E+04            | 1.995E-07 | 4.261E-05    |
| 2155 | 5.272E+04            | 1.898E-07 | 4.053E-05    |
| 2156 | 5.272E+04            | 1.805E-07 | 3.855E-05    |
| 2157 | 5.272E+04            | 1.717E-07 | 3.667E-05    |
| 2158 | 5.272E+04            | 1.633E-07 | 3.489E-05    |

continued

Table D-38. Emission Rate of Chlorobenzene from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 5.272E+04            | 1.554E-07 | 3.318E-05    |
| 2160 | 5.272E+04            | 1.478E-07 | 3.157E-05    |
| 2161 | 5.272E+04            | 1.406E-07 | 3.003E-05    |
| 2162 | 5.272E+04            | 1.337E-07 | 2.856E-05    |
| 2163 | 5.272E+04            | 1.272E-07 | 2.717E-05    |
| 2164 | 5.272E+04            | 1.210E-07 | 2.584E-05    |
| 2165 | 5.272E+04            | 1.151E-07 | 2.458E-05    |
| 2166 | 5.272E+04            | 1.095E-07 | 2.338E-05    |
| 2167 | 5.272E+04            | 1.041E-07 | 2.224E-05    |
| 2168 | 5.272E+04            | 9.906E-08 | 2.116E-05    |
| 2169 | 5.272E+04            | 9.423E-08 | 2.013E-05    |
| 2170 | 5.272E+04            | 8.963E-08 | 1.915E-05    |
| 2171 | 5.272E+04            | 8.526E-08 | 1.821E-05    |
| 2172 | 5.272E+04            | 8.110E-08 | 1.732E-05    |
| 2173 | 5.272E+04            | 7.715E-08 | 1.648E-05    |
| 2174 | 5.272E+04            | 7.339E-08 | 1.568E-05    |
| 2175 | 5.272E+04            | 6.981E-08 | 1.491E-05    |
| 2176 | 5.272E+04            | 6.640E-08 | 1.418E-05    |
| 2177 | 5.272E+04            | 6.316E-08 | 1.349E-05    |
| 2178 | 5.272E+04            | 6.008E-08 | 1.283E-05    |
| 2179 | 5.272E+04            | 5.715E-08 | 1.221E-05    |
| 2180 | 5.272E+04            | 5.437E-08 | 1.161E-05    |
| 2181 | 5.272E+04            | 5.171E-08 | 1.105E-05    |
| 2182 | 5.272E+04            | 4.919E-08 | 1.051E-05    |
| 2183 | 5.272E+04            | 4.679E-08 | 9.995E-06    |
| 2184 | 5.272E+04            | 4.451E-08 | 9.507E-06    |
| 2185 | 5.272E+04            | 4.234E-08 | 9.044E-06    |
| 2186 | 5.272E+04            | 4.028E-08 | 8.603E-06    |
| 2187 | 5.272E+04            | 3.831E-08 | 8.183E-06    |
| 2188 | 5.272E+04            | 3.644E-08 | 7.784E-06    |
| 2189 | 5.272E+04            | 3.467E-08 | 7.404E-06    |
| 2190 | 5.272E+04            | 3.297E-08 | 7.043E-06    |
| 2191 | 5.272E+04            | 3.137E-08 | 6.700E-06    |
| 2192 | 5.272E+04            | 2.984E-08 | 6.373E-06    |
| 2193 | 5.272E+04            | 2.838E-08 | 6.062E-06    |
| 2194 | 5.272E+04            | 2.700E-08 | 5.767E-06    |
| 2195 | 5.272E+04            | 2.568E-08 | 5.485E-06    |
| 2196 | 5.272E+04            | 2.443E-08 | 5.218E-06    |
| 2197 | 5.272E+04            | 2.324E-08 | 4.963E-06    |
| 2198 | 5.272E+04            | 2.210E-08 | 4.721E-06    |
| 2199 | 5.272E+04            | 2.103E-08 | 4.491E-06    |
| 2200 | 5.272E+04            | 2.000E-08 | 4.272E-06    |
| 2201 | 5.272E+04            | 1.902E-08 | 4.064E-06    |
| 2202 | 5.272E+04            | 1.810E-08 | 3.865E-06    |
| 2203 | 5.272E+04            | 1.721E-08 | 3.677E-06    |

Table D-39. Emission Rate of Chloroethane from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA3.PRM

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=====
Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
Air Pollutant : Chloroethane (HAP/VOC)
Molecular Wt = 64.52      Concentration = 0.220000 ppmV
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
Model Results
=====
Year      Refuse In Place (Mg)      Chloroethane (HAP/VOC) Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      4.033E-05      1.503E-02
1976      1.054E+04      7.869E-05      2.932E-02
1977      1.582E+04      1.152E-04      4.292E-02
1978      2.109E+04      1.499E-04      5.586E-02
1979      2.636E+04      1.829E-04      6.816E-02
1980      3.163E+04      2.143E-04      7.986E-02
1981      3.690E+04      2.442E-04      9.100E-02
1982      4.217E+04      2.726E-04      1.016E-01
1983      4.745E+04      2.996E-04      1.117E-01
1984      5.272E+04      3.254E-04      1.212E-01
1985      5.272E+04      3.095E-04      1.153E-01
1986      5.272E+04      2.944E-04      1.097E-01
1987      5.272E+04      2.800E-04      1.044E-01
1988      5.272E+04      2.664E-04      9.926E-02
1989      5.272E+04      2.534E-04      9.442E-02
1990      5.272E+04      2.410E-04      8.982E-02
1991      5.272E+04      2.293E-04      8.544E-02
1992      5.272E+04      2.181E-04      8.127E-02
1993      5.272E+04      2.075E-04      7.731E-02
1994      5.272E+04      1.973E-04      7.354E-02
1995      5.272E+04      1.877E-04      6.995E-02
1996      5.272E+04      1.786E-04      6.654E-02
1997      5.272E+04      1.699E-04      6.329E-02
1998      5.272E+04      1.616E-04      6.021E-02
1999      5.272E+04      1.537E-04      5.727E-02
2000      5.272E+04      1.462E-04      5.448E-02
2001      5.272E+04      1.391E-04      5.182E-02
2002      5.272E+04      1.323E-04      4.929E-02
2003      5.272E+04      1.258E-04      4.689E-02
2004      5.272E+04      1.197E-04      4.460E-02
2005      5.272E+04      1.139E-04      4.243E-02
2006      5.272E+04      1.083E-04      4.036E-02
2007      5.272E+04      1.030E-04      3.839E-02
2008      5.272E+04      9.800E-05      3.652E-02
2009      5.272E+04      9.322E-05      3.474E-02
2010      5.272E+04      8.867E-05      3.304E-02
2011      5.272E+04      8.435E-05      3.143E-02
2012      5.272E+04      8.023E-05      2.990E-02
2013      5.272E+04      7.632E-05      2.844E-02
2014      5.272E+04      7.260E-05      2.705E-02
2015      5.272E+04      6.906E-05      2.573E-02
2016      5.272E+04      6.569E-05      2.448E-02
2017      5.272E+04      6.248E-05      2.328E-02
2018      5.272E+04      5.944E-05      2.215E-02
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continued

Table D-39. Emission Rate of Chloroethane from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 5.272E+04            | 5.654E-05 | 2.107E-02    |
| 2020 | 5.272E+04            | 5.378E-05 | 2.004E-02    |
| 2021 | 5.272E+04            | 5.116E-05 | 1.906E-02    |
| 2022 | 5.272E+04            | 4.866E-05 | 1.813E-02    |
| 2023 | 5.272E+04            | 4.629E-05 | 1.725E-02    |
| 2024 | 5.272E+04            | 4.403E-05 | 1.641E-02    |
| 2025 | 5.272E+04            | 4.188E-05 | 1.561E-02    |
| 2026 | 5.272E+04            | 3.984E-05 | 1.485E-02    |
| 2027 | 5.272E+04            | 3.790E-05 | 1.412E-02    |
| 2028 | 5.272E+04            | 3.605E-05 | 1.343E-02    |
| 2029 | 5.272E+04            | 3.429E-05 | 1.278E-02    |
| 2030 | 5.272E+04            | 3.262E-05 | 1.216E-02    |
| 2031 | 5.272E+04            | 3.103E-05 | 1.156E-02    |
| 2032 | 5.272E+04            | 2.952E-05 | 1.100E-02    |
| 2033 | 5.272E+04            | 2.808E-05 | 1.046E-02    |
| 2034 | 5.272E+04            | 2.671E-05 | 9.952E-03    |
| 2035 | 5.272E+04            | 2.540E-05 | 9.467E-03    |
| 2036 | 5.272E+04            | 2.417E-05 | 9.005E-03    |
| 2037 | 5.272E+04            | 2.299E-05 | 8.566E-03    |
| 2038 | 5.272E+04            | 2.187E-05 | 8.148E-03    |
| 2039 | 5.272E+04            | 2.080E-05 | 7.751E-03    |
| 2040 | 5.272E+04            | 1.979E-05 | 7.373E-03    |
| 2041 | 5.272E+04            | 1.882E-05 | 7.013E-03    |
| 2042 | 5.272E+04            | 1.790E-05 | 6.671E-03    |
| 2043 | 5.272E+04            | 1.703E-05 | 6.346E-03    |
| 2044 | 5.272E+04            | 1.620E-05 | 6.036E-03    |
| 2045 | 5.272E+04            | 1.541E-05 | 5.742E-03    |
| 2046 | 5.272E+04            | 1.466E-05 | 5.462E-03    |
| 2047 | 5.272E+04            | 1.394E-05 | 5.195E-03    |
| 2048 | 5.272E+04            | 1.326E-05 | 4.942E-03    |
| 2049 | 5.272E+04            | 1.262E-05 | 4.701E-03    |
| 2050 | 5.272E+04            | 1.200E-05 | 4.472E-03    |
| 2051 | 5.272E+04            | 1.141E-05 | 4.254E-03    |
| 2052 | 5.272E+04            | 1.086E-05 | 4.046E-03    |
| 2053 | 5.272E+04            | 1.033E-05 | 3.849E-03    |
| 2054 | 5.272E+04            | 9.825E-06 | 3.661E-03    |
| 2055 | 5.272E+04            | 9.346E-06 | 3.483E-03    |
| 2056 | 5.272E+04            | 8.890E-06 | 3.313E-03    |
| 2057 | 5.272E+04            | 8.456E-06 | 3.151E-03    |
| 2058 | 5.272E+04            | 8.044E-06 | 2.998E-03    |
| 2059 | 5.272E+04            | 7.652E-06 | 2.851E-03    |
| 2060 | 5.272E+04            | 7.279E-06 | 2.712E-03    |
| 2061 | 5.272E+04            | 6.924E-06 | 2.580E-03    |
| 2062 | 5.272E+04            | 6.586E-06 | 2.454E-03    |
| 2063 | 5.272E+04            | 6.265E-06 | 2.334E-03    |
| 2064 | 5.272E+04            | 5.959E-06 | 2.221E-03    |
| 2065 | 5.272E+04            | 5.669E-06 | 2.112E-03    |
| 2066 | 5.272E+04            | 5.392E-06 | 2.009E-03    |
| 2067 | 5.272E+04            | 5.129E-06 | 1.911E-03    |
| 2068 | 5.272E+04            | 4.879E-06 | 1.818E-03    |
| 2069 | 5.272E+04            | 4.641E-06 | 1.729E-03    |
| 2070 | 5.272E+04            | 4.415E-06 | 1.645E-03    |
| 2071 | 5.272E+04            | 4.199E-06 | 1.565E-03    |
| 2072 | 5.272E+04            | 3.995E-06 | 1.489E-03    |
| 2073 | 5.272E+04            | 3.800E-06 | 1.416E-03    |
| 2074 | 5.272E+04            | 3.614E-06 | 1.347E-03    |
| 2075 | 5.272E+04            | 3.438E-06 | 1.281E-03    |
| 2076 | 5.272E+04            | 3.270E-06 | 1.219E-03    |
| 2077 | 5.272E+04            | 3.111E-06 | 1.159E-03    |
| 2078 | 5.272E+04            | 2.959E-06 | 1.103E-03    |
| 2079 | 5.272E+04            | 2.815E-06 | 1.049E-03    |
| 2080 | 5.272E+04            | 2.678E-06 | 9.978E-04    |
| 2081 | 5.272E+04            | 2.547E-06 | 9.491E-04    |
| 2082 | 5.272E+04            | 2.423E-06 | 9.028E-04    |
| 2083 | 5.272E+04            | 2.305E-06 | 8.588E-04    |
| 2084 | 5.272E+04            | 2.192E-06 | 8.169E-04    |
| 2085 | 5.272E+04            | 2.085E-06 | 7.771E-04    |
| 2086 | 5.272E+04            | 1.984E-06 | 7.392E-04    |
| 2087 | 5.272E+04            | 1.887E-06 | 7.031E-04    |
| 2088 | 5.272E+04            | 1.795E-06 | 6.688E-04    |

continued

Table D-39. Emission Rate of Chloroethane from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 5.272E+04            | 1.707E-06 | 6.362E-04    |
| 2090 | 5.272E+04            | 1.624E-06 | 6.052E-04    |
| 2091 | 5.272E+04            | 1.545E-06 | 5.757E-04    |
| 2092 | 5.272E+04            | 1.470E-06 | 5.476E-04    |
| 2093 | 5.272E+04            | 1.398E-06 | 5.209E-04    |
| 2094 | 5.272E+04            | 1.330E-06 | 4.955E-04    |
| 2095 | 5.272E+04            | 1.265E-06 | 4.713E-04    |
| 2096 | 5.272E+04            | 1.203E-06 | 4.483E-04    |
| 2097 | 5.272E+04            | 1.144E-06 | 4.265E-04    |
| 2098 | 5.272E+04            | 1.089E-06 | 4.057E-04    |
| 2099 | 5.272E+04            | 1.036E-06 | 3.859E-04    |
| 2100 | 5.272E+04            | 9.850E-07 | 3.671E-04    |
| 2101 | 5.272E+04            | 9.370E-07 | 3.492E-04    |
| 2102 | 5.272E+04            | 8.913E-07 | 3.321E-04    |
| 2103 | 5.272E+04            | 8.478E-07 | 3.159E-04    |
| 2104 | 5.272E+04            | 8.065E-07 | 3.005E-04    |
| 2105 | 5.272E+04            | 7.671E-07 | 2.859E-04    |
| 2106 | 5.272E+04            | 7.297E-07 | 2.719E-04    |
| 2107 | 5.272E+04            | 6.941E-07 | 2.587E-04    |
| 2108 | 5.272E+04            | 6.603E-07 | 2.461E-04    |
| 2109 | 5.272E+04            | 6.281E-07 | 2.341E-04    |
| 2110 | 5.272E+04            | 5.975E-07 | 2.226E-04    |
| 2111 | 5.272E+04            | 5.683E-07 | 2.118E-04    |
| 2112 | 5.272E+04            | 5.406E-07 | 2.014E-04    |
| 2113 | 5.272E+04            | 5.142E-07 | 1.916E-04    |
| 2114 | 5.272E+04            | 4.892E-07 | 1.823E-04    |
| 2115 | 5.272E+04            | 4.653E-07 | 1.734E-04    |
| 2116 | 5.272E+04            | 4.426E-07 | 1.649E-04    |
| 2117 | 5.272E+04            | 4.210E-07 | 1.569E-04    |
| 2118 | 5.272E+04            | 4.005E-07 | 1.492E-04    |
| 2119 | 5.272E+04            | 3.810E-07 | 1.420E-04    |
| 2120 | 5.272E+04            | 3.624E-07 | 1.350E-04    |
| 2121 | 5.272E+04            | 3.447E-07 | 1.284E-04    |
| 2122 | 5.272E+04            | 3.279E-07 | 1.222E-04    |
| 2123 | 5.272E+04            | 3.119E-07 | 1.162E-04    |
| 2124 | 5.272E+04            | 2.967E-07 | 1.106E-04    |
| 2125 | 5.272E+04            | 2.822E-07 | 1.052E-04    |
| 2126 | 5.272E+04            | 2.685E-07 | 1.000E-04    |
| 2127 | 5.272E+04            | 2.554E-07 | 9.516E-05    |
| 2128 | 5.272E+04            | 2.429E-07 | 9.052E-05    |
| 2129 | 5.272E+04            | 2.311E-07 | 8.610E-05    |
| 2130 | 5.272E+04            | 2.198E-07 | 8.190E-05    |
| 2131 | 5.272E+04            | 2.091E-07 | 7.791E-05    |
| 2132 | 5.272E+04            | 1.989E-07 | 7.411E-05    |
| 2133 | 5.272E+04            | 1.892E-07 | 7.049E-05    |
| 2134 | 5.272E+04            | 1.800E-07 | 6.706E-05    |
| 2135 | 5.272E+04            | 1.712E-07 | 6.379E-05    |
| 2136 | 5.272E+04            | 1.628E-07 | 6.068E-05    |
| 2137 | 5.272E+04            | 1.549E-07 | 5.772E-05    |
| 2138 | 5.272E+04            | 1.473E-07 | 5.490E-05    |
| 2139 | 5.272E+04            | 1.401E-07 | 5.222E-05    |
| 2140 | 5.272E+04            | 1.333E-07 | 4.968E-05    |
| 2141 | 5.272E+04            | 1.268E-07 | 4.725E-05    |
| 2142 | 5.272E+04            | 1.206E-07 | 4.495E-05    |
| 2143 | 5.272E+04            | 1.147E-07 | 4.276E-05    |
| 2144 | 5.272E+04            | 1.091E-07 | 4.067E-05    |
| 2145 | 5.272E+04            | 1.038E-07 | 3.869E-05    |
| 2146 | 5.272E+04            | 9.876E-08 | 3.680E-05    |
| 2147 | 5.272E+04            | 9.394E-08 | 3.501E-05    |
| 2148 | 5.272E+04            | 8.936E-08 | 3.330E-05    |
| 2149 | 5.272E+04            | 8.500E-08 | 3.168E-05    |
| 2150 | 5.272E+04            | 8.086E-08 | 3.013E-05    |
| 2151 | 5.272E+04            | 7.691E-08 | 2.866E-05    |
| 2152 | 5.272E+04            | 7.316E-08 | 2.726E-05    |
| 2153 | 5.272E+04            | 6.959E-08 | 2.593E-05    |
| 2154 | 5.272E+04            | 6.620E-08 | 2.467E-05    |
| 2155 | 5.272E+04            | 6.297E-08 | 2.347E-05    |
| 2156 | 5.272E+04            | 5.990E-08 | 2.232E-05    |
| 2157 | 5.272E+04            | 5.698E-08 | 2.123E-05    |
| 2158 | 5.272E+04            | 5.420E-08 | 2.020E-05    |

continued

Table D-39. Emission Rate of Chloroethane from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 5.272E+04            | 5.156E-08 | 1.921E-05    |
| 2160 | 5.272E+04            | 4.904E-08 | 1.828E-05    |
| 2161 | 5.272E+04            | 4.665E-08 | 1.738E-05    |
| 2162 | 5.272E+04            | 4.438E-08 | 1.654E-05    |
| 2163 | 5.272E+04            | 4.221E-08 | 1.573E-05    |
| 2164 | 5.272E+04            | 4.015E-08 | 1.496E-05    |
| 2165 | 5.272E+04            | 3.819E-08 | 1.423E-05    |
| 2166 | 5.272E+04            | 3.633E-08 | 1.354E-05    |
| 2167 | 5.272E+04            | 3.456E-08 | 1.288E-05    |
| 2168 | 5.272E+04            | 3.287E-08 | 1.225E-05    |
| 2169 | 5.272E+04            | 3.127E-08 | 1.165E-05    |
| 2170 | 5.272E+04            | 2.975E-08 | 1.108E-05    |
| 2171 | 5.272E+04            | 2.829E-08 | 1.054E-05    |
| 2172 | 5.272E+04            | 2.691E-08 | 1.003E-05    |
| 2173 | 5.272E+04            | 2.560E-08 | 9.540E-06    |
| 2174 | 5.272E+04            | 2.435E-08 | 9.075E-06    |
| 2175 | 5.272E+04            | 2.317E-08 | 8.633E-06    |
| 2176 | 5.272E+04            | 2.204E-08 | 8.211E-06    |
| 2177 | 5.272E+04            | 2.096E-08 | 7.811E-06    |
| 2178 | 5.272E+04            | 1.994E-08 | 7.430E-06    |
| 2179 | 5.272E+04            | 1.897E-08 | 7.068E-06    |
| 2180 | 5.272E+04            | 1.804E-08 | 6.723E-06    |
| 2181 | 5.272E+04            | 1.716E-08 | 6.395E-06    |
| 2182 | 5.272E+04            | 1.632E-08 | 6.083E-06    |
| 2183 | 5.272E+04            | 1.553E-08 | 5.787E-06    |
| 2184 | 5.272E+04            | 1.477E-08 | 5.504E-06    |
| 2185 | 5.272E+04            | 1.405E-08 | 5.236E-06    |
| 2186 | 5.272E+04            | 1.337E-08 | 4.981E-06    |
| 2187 | 5.272E+04            | 1.271E-08 | 4.738E-06    |
| 2188 | 5.272E+04            | 1.209E-08 | 4.507E-06    |
| 2189 | 5.272E+04            | 1.150E-08 | 4.287E-06    |
| 2190 | 5.272E+04            | 1.094E-08 | 4.078E-06    |
| 2191 | 5.272E+04            | 1.041E-08 | 3.879E-06    |
| 2192 | 5.272E+04            | 9.901E-09 | 3.690E-06    |
| 2193 | 5.272E+04            | 9.419E-09 | 3.510E-06    |
| 2194 | 5.272E+04            | 8.959E-09 | 3.339E-06    |
| 2195 | 5.272E+04            | 8.522E-09 | 3.176E-06    |
| 2196 | 5.272E+04            | 8.107E-09 | 3.021E-06    |
| 2197 | 5.272E+04            | 7.711E-09 | 2.874E-06    |
| 2198 | 5.272E+04            | 7.335E-09 | 2.733E-06    |
| 2199 | 5.272E+04            | 6.977E-09 | 2.600E-06    |
| 2200 | 5.272E+04            | 6.637E-09 | 2.473E-06    |
| 2201 | 5.272E+04            | 6.313E-09 | 2.353E-06    |
| 2202 | 5.272E+04            | 6.006E-09 | 2.238E-06    |
| 2203 | 5.272E+04            | 5.713E-09 | 2.129E-06    |

Table D-40. Emission Rate of 1,4-Dichlorobenzene from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA3.PRM

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=====
Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
Air Pollutant : Dichlorobenzene (VOC/HAP for 1,4 isomer)
Molecular Wt = 147.00      Concentration = 0.140000 ppmV
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
Model Results
=====
Dichlorobenzene (VOC/HAP for 1,4 isomer) Emission R
Year      Refuse In Place (Mg)      (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      5.847E-05      9.563E-03
1976      1.054E+04      1.141E-04      1.866E-02
1977      1.582E+04      1.670E-04      2.731E-02
1978      2.109E+04      2.173E-04      3.554E-02
1979      2.636E+04      2.652E-04      4.337E-02
1980      3.163E+04      3.107E-04      5.082E-02
1981      3.690E+04      3.540E-04      5.791E-02
1982      4.217E+04      3.952E-04      6.465E-02
1983      4.745E+04      4.344E-04      7.106E-02
1984      5.272E+04      4.717E-04      7.715E-02
1985      5.272E+04      4.487E-04      7.339E-02
1986      5.272E+04      4.268E-04      6.981E-02
1987      5.272E+04      4.060E-04      6.641E-02
1988      5.272E+04      3.862E-04      6.317E-02
1989      5.272E+04      3.674E-04      6.009E-02
1990      5.272E+04      3.495E-04      5.716E-02
1991      5.272E+04      3.324E-04      5.437E-02
1992      5.272E+04      3.162E-04      5.172E-02
1993      5.272E+04      3.008E-04      4.920E-02
1994      5.272E+04      2.861E-04      4.680E-02
1995      5.272E+04      2.722E-04      4.451E-02
1996      5.272E+04      2.589E-04      4.234E-02
1997      5.272E+04      2.463E-04      4.028E-02
1998      5.272E+04      2.343E-04      3.831E-02
1999      5.272E+04      2.228E-04      3.644E-02
2000      5.272E+04      2.120E-04      3.467E-02
2001      5.272E+04      2.016E-04      3.298E-02
2002      5.272E+04      1.918E-04      3.137E-02
2003      5.272E+04      1.824E-04      2.984E-02
2004      5.272E+04      1.735E-04      2.838E-02
2005      5.272E+04      1.651E-04      2.700E-02
2006      5.272E+04      1.570E-04      2.568E-02
2007      5.272E+04      1.494E-04      2.443E-02
2008      5.272E+04      1.421E-04      2.324E-02
2009      5.272E+04      1.352E-04      2.210E-02
2010      5.272E+04      1.286E-04      2.103E-02
2011      5.272E+04      1.223E-04      2.000E-02
2012      5.272E+04      1.163E-04      1.903E-02
2013      5.272E+04      1.107E-04      1.810E-02
2014      5.272E+04      1.053E-04      1.722E-02
2015      5.272E+04      1.001E-04      1.638E-02
2016      5.272E+04      9.524E-05      1.558E-02
2017      5.272E+04      9.059E-05      1.482E-02
2018      5.272E+04      8.618E-05      1.409E-02
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continued

Table D-40. Emission Rate of 1,4-Dichlorobenzene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 5.272E+04            | 8.197E-05 | 1.341E-02    |
| 2020 | 5.272E+04            | 7.798E-05 | 1.275E-02    |
| 2021 | 5.272E+04            | 7.417E-05 | 1.213E-02    |
| 2022 | 5.272E+04            | 7.056E-05 | 1.154E-02    |
| 2023 | 5.272E+04            | 6.711E-05 | 1.098E-02    |
| 2024 | 5.272E+04            | 6.384E-05 | 1.044E-02    |
| 2025 | 5.272E+04            | 6.073E-05 | 9.932E-03    |
| 2026 | 5.272E+04            | 5.777E-05 | 9.448E-03    |
| 2027 | 5.272E+04            | 5.495E-05 | 8.987E-03    |
| 2028 | 5.272E+04            | 5.227E-05 | 8.549E-03    |
| 2029 | 5.272E+04            | 4.972E-05 | 8.132E-03    |
| 2030 | 5.272E+04            | 4.729E-05 | 7.735E-03    |
| 2031 | 5.272E+04            | 4.499E-05 | 7.358E-03    |
| 2032 | 5.272E+04            | 4.279E-05 | 6.999E-03    |
| 2033 | 5.272E+04            | 4.071E-05 | 6.658E-03    |
| 2034 | 5.272E+04            | 3.872E-05 | 6.333E-03    |
| 2035 | 5.272E+04            | 3.683E-05 | 6.024E-03    |
| 2036 | 5.272E+04            | 3.504E-05 | 5.730E-03    |
| 2037 | 5.272E+04            | 3.333E-05 | 5.451E-03    |
| 2038 | 5.272E+04            | 3.170E-05 | 5.185E-03    |
| 2039 | 5.272E+04            | 3.016E-05 | 4.932E-03    |
| 2040 | 5.272E+04            | 2.869E-05 | 4.692E-03    |
| 2041 | 5.272E+04            | 2.729E-05 | 4.463E-03    |
| 2042 | 5.272E+04            | 2.596E-05 | 4.245E-03    |
| 2043 | 5.272E+04            | 2.469E-05 | 4.038E-03    |
| 2044 | 5.272E+04            | 2.349E-05 | 3.841E-03    |
| 2045 | 5.272E+04            | 2.234E-05 | 3.654E-03    |
| 2046 | 5.272E+04            | 2.125E-05 | 3.476E-03    |
| 2047 | 5.272E+04            | 2.021E-05 | 3.306E-03    |
| 2048 | 5.272E+04            | 1.923E-05 | 3.145E-03    |
| 2049 | 5.272E+04            | 1.829E-05 | 2.992E-03    |
| 2050 | 5.272E+04            | 1.740E-05 | 2.846E-03    |
| 2051 | 5.272E+04            | 1.655E-05 | 2.707E-03    |
| 2052 | 5.272E+04            | 1.574E-05 | 2.575E-03    |
| 2053 | 5.272E+04            | 1.498E-05 | 2.449E-03    |
| 2054 | 5.272E+04            | 1.424E-05 | 2.330E-03    |
| 2055 | 5.272E+04            | 1.355E-05 | 2.216E-03    |
| 2056 | 5.272E+04            | 1.289E-05 | 2.108E-03    |
| 2057 | 5.272E+04            | 1.226E-05 | 2.005E-03    |
| 2058 | 5.272E+04            | 1.166E-05 | 1.908E-03    |
| 2059 | 5.272E+04            | 1.109E-05 | 1.814E-03    |
| 2060 | 5.272E+04            | 1.055E-05 | 1.726E-03    |
| 2061 | 5.272E+04            | 1.004E-05 | 1.642E-03    |
| 2062 | 5.272E+04            | 9.549E-06 | 1.562E-03    |
| 2063 | 5.272E+04            | 9.083E-06 | 1.486E-03    |
| 2064 | 5.272E+04            | 8.640E-06 | 1.413E-03    |
| 2065 | 5.272E+04            | 8.219E-06 | 1.344E-03    |
| 2066 | 5.272E+04            | 7.818E-06 | 1.279E-03    |
| 2067 | 5.272E+04            | 7.436E-06 | 1.216E-03    |
| 2068 | 5.272E+04            | 7.074E-06 | 1.157E-03    |
| 2069 | 5.272E+04            | 6.729E-06 | 1.101E-03    |
| 2070 | 5.272E+04            | 6.401E-06 | 1.047E-03    |
| 2071 | 5.272E+04            | 6.088E-06 | 9.958E-04    |
| 2072 | 5.272E+04            | 5.792E-06 | 9.472E-04    |
| 2073 | 5.272E+04            | 5.509E-06 | 9.010E-04    |
| 2074 | 5.272E+04            | 5.240E-06 | 8.571E-04    |
| 2075 | 5.272E+04            | 4.985E-06 | 8.153E-04    |
| 2076 | 5.272E+04            | 4.742E-06 | 7.755E-04    |
| 2077 | 5.272E+04            | 4.510E-06 | 7.377E-04    |
| 2078 | 5.272E+04            | 4.290E-06 | 7.017E-04    |
| 2079 | 5.272E+04            | 4.081E-06 | 6.675E-04    |
| 2080 | 5.272E+04            | 3.882E-06 | 6.350E-04    |
| 2081 | 5.272E+04            | 3.693E-06 | 6.040E-04    |
| 2082 | 5.272E+04            | 3.513E-06 | 5.745E-04    |
| 2083 | 5.272E+04            | 3.341E-06 | 5.465E-04    |
| 2084 | 5.272E+04            | 3.178E-06 | 5.199E-04    |
| 2085 | 5.272E+04            | 3.023E-06 | 4.945E-04    |
| 2086 | 5.272E+04            | 2.876E-06 | 4.704E-04    |
| 2087 | 5.272E+04            | 2.736E-06 | 4.474E-04    |
| 2088 | 5.272E+04            | 2.602E-06 | 4.256E-04    |

continued



Table D-40. Emission Rate of 1,4-Dichlorobenzene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 5.272E+04            | 2.475E-06 | 4.049E-04    |
| 2090 | 5.272E+04            | 2.355E-06 | 3.851E-04    |
| 2091 | 5.272E+04            | 2.240E-06 | 3.663E-04    |
| 2092 | 5.272E+04            | 2.131E-06 | 3.485E-04    |
| 2093 | 5.272E+04            | 2.027E-06 | 3.315E-04    |
| 2094 | 5.272E+04            | 1.928E-06 | 3.153E-04    |
| 2095 | 5.272E+04            | 1.834E-06 | 2.999E-04    |
| 2096 | 5.272E+04            | 1.744E-06 | 2.853E-04    |
| 2097 | 5.272E+04            | 1.659E-06 | 2.714E-04    |
| 2098 | 5.272E+04            | 1.578E-06 | 2.582E-04    |
| 2099 | 5.272E+04            | 1.501E-06 | 2.456E-04    |
| 2100 | 5.272E+04            | 1.428E-06 | 2.336E-04    |
| 2101 | 5.272E+04            | 1.359E-06 | 2.222E-04    |
| 2102 | 5.272E+04            | 1.292E-06 | 2.114E-04    |
| 2103 | 5.272E+04            | 1.229E-06 | 2.010E-04    |
| 2104 | 5.272E+04            | 1.169E-06 | 1.912E-04    |
| 2105 | 5.272E+04            | 1.112E-06 | 1.819E-04    |
| 2106 | 5.272E+04            | 1.058E-06 | 1.730E-04    |
| 2107 | 5.272E+04            | 1.006E-06 | 1.646E-04    |
| 2108 | 5.272E+04            | 9.573E-07 | 1.566E-04    |
| 2109 | 5.272E+04            | 9.106E-07 | 1.489E-04    |
| 2110 | 5.272E+04            | 8.662E-07 | 1.417E-04    |
| 2111 | 5.272E+04            | 8.240E-07 | 1.348E-04    |
| 2112 | 5.272E+04            | 7.838E-07 | 1.282E-04    |
| 2113 | 5.272E+04            | 7.456E-07 | 1.219E-04    |
| 2114 | 5.272E+04            | 7.092E-07 | 1.160E-04    |
| 2115 | 5.272E+04            | 6.746E-07 | 1.103E-04    |
| 2116 | 5.272E+04            | 6.417E-07 | 1.050E-04    |
| 2117 | 5.272E+04            | 6.104E-07 | 9.984E-05    |
| 2118 | 5.272E+04            | 5.807E-07 | 9.497E-05    |
| 2119 | 5.272E+04            | 5.523E-07 | 9.034E-05    |
| 2120 | 5.272E+04            | 5.254E-07 | 8.593E-05    |
| 2121 | 5.272E+04            | 4.998E-07 | 8.174E-05    |
| 2122 | 5.272E+04            | 4.754E-07 | 7.775E-05    |
| 2123 | 5.272E+04            | 4.522E-07 | 7.396E-05    |
| 2124 | 5.272E+04            | 4.302E-07 | 7.035E-05    |
| 2125 | 5.272E+04            | 4.092E-07 | 6.692E-05    |
| 2126 | 5.272E+04            | 3.892E-07 | 6.366E-05    |
| 2127 | 5.272E+04            | 3.702E-07 | 6.055E-05    |
| 2128 | 5.272E+04            | 3.522E-07 | 5.760E-05    |
| 2129 | 5.272E+04            | 3.350E-07 | 5.479E-05    |
| 2130 | 5.272E+04            | 3.187E-07 | 5.212E-05    |
| 2131 | 5.272E+04            | 3.031E-07 | 4.958E-05    |
| 2132 | 5.272E+04            | 2.883E-07 | 4.716E-05    |
| 2133 | 5.272E+04            | 2.743E-07 | 4.486E-05    |
| 2134 | 5.272E+04            | 2.609E-07 | 4.267E-05    |
| 2135 | 5.272E+04            | 2.482E-07 | 4.059E-05    |
| 2136 | 5.272E+04            | 2.361E-07 | 3.861E-05    |
| 2137 | 5.272E+04            | 2.246E-07 | 3.673E-05    |
| 2138 | 5.272E+04            | 2.136E-07 | 3.494E-05    |
| 2139 | 5.272E+04            | 2.032E-07 | 3.323E-05    |
| 2140 | 5.272E+04            | 1.933E-07 | 3.161E-05    |
| 2141 | 5.272E+04            | 1.839E-07 | 3.007E-05    |
| 2142 | 5.272E+04            | 1.749E-07 | 2.860E-05    |
| 2143 | 5.272E+04            | 1.664E-07 | 2.721E-05    |
| 2144 | 5.272E+04            | 1.582E-07 | 2.588E-05    |
| 2145 | 5.272E+04            | 1.505E-07 | 2.462E-05    |
| 2146 | 5.272E+04            | 1.432E-07 | 2.342E-05    |
| 2147 | 5.272E+04            | 1.362E-07 | 2.228E-05    |
| 2148 | 5.272E+04            | 1.296E-07 | 2.119E-05    |
| 2149 | 5.272E+04            | 1.232E-07 | 2.016E-05    |
| 2150 | 5.272E+04            | 1.172E-07 | 1.917E-05    |
| 2151 | 5.272E+04            | 1.115E-07 | 1.824E-05    |
| 2152 | 5.272E+04            | 1.061E-07 | 1.735E-05    |
| 2153 | 5.272E+04            | 1.009E-07 | 1.650E-05    |
| 2154 | 5.272E+04            | 9.598E-08 | 1.570E-05    |
| 2155 | 5.272E+04            | 9.130E-08 | 1.493E-05    |
| 2156 | 5.272E+04            | 8.685E-08 | 1.420E-05    |
| 2157 | 5.272E+04            | 8.261E-08 | 1.351E-05    |
| 2158 | 5.272E+04            | 7.858E-08 | 1.285E-05    |

continued

Table D-40. Emission Rate of 1,4-Dichlorobenzene from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 5.272E+04            | 7.475E-08 | 1.223E-05    |
| 2160 | 5.272E+04            | 7.110E-08 | 1.163E-05    |
| 2161 | 5.272E+04            | 6.764E-08 | 1.106E-05    |
| 2162 | 5.272E+04            | 6.434E-08 | 1.052E-05    |
| 2163 | 5.272E+04            | 6.120E-08 | 1.001E-05    |
| 2164 | 5.272E+04            | 5.822E-08 | 9.521E-06    |
| 2165 | 5.272E+04            | 5.538E-08 | 9.057E-06    |
| 2166 | 5.272E+04            | 5.268E-08 | 8.615E-06    |
| 2167 | 5.272E+04            | 5.011E-08 | 8.195E-06    |
| 2168 | 5.272E+04            | 4.766E-08 | 7.796E-06    |
| 2169 | 5.272E+04            | 4.534E-08 | 7.415E-06    |
| 2170 | 5.272E+04            | 4.313E-08 | 7.054E-06    |
| 2171 | 5.272E+04            | 4.102E-08 | 6.710E-06    |
| 2172 | 5.272E+04            | 3.902E-08 | 6.382E-06    |
| 2173 | 5.272E+04            | 3.712E-08 | 6.071E-06    |
| 2174 | 5.272E+04            | 3.531E-08 | 5.775E-06    |
| 2175 | 5.272E+04            | 3.359E-08 | 5.493E-06    |
| 2176 | 5.272E+04            | 3.195E-08 | 5.225E-06    |
| 2177 | 5.272E+04            | 3.039E-08 | 4.971E-06    |
| 2178 | 5.272E+04            | 2.891E-08 | 4.728E-06    |
| 2179 | 5.272E+04            | 2.750E-08 | 4.498E-06    |
| 2180 | 5.272E+04            | 2.616E-08 | 4.278E-06    |
| 2181 | 5.272E+04            | 2.488E-08 | 4.070E-06    |
| 2182 | 5.272E+04            | 2.367E-08 | 3.871E-06    |
| 2183 | 5.272E+04            | 2.251E-08 | 3.682E-06    |
| 2184 | 5.272E+04            | 2.142E-08 | 3.503E-06    |
| 2185 | 5.272E+04            | 2.037E-08 | 3.332E-06    |
| 2186 | 5.272E+04            | 1.938E-08 | 3.169E-06    |
| 2187 | 5.272E+04            | 1.843E-08 | 3.015E-06    |
| 2188 | 5.272E+04            | 1.753E-08 | 2.868E-06    |
| 2189 | 5.272E+04            | 1.668E-08 | 2.728E-06    |
| 2190 | 5.272E+04            | 1.587E-08 | 2.595E-06    |
| 2191 | 5.272E+04            | 1.509E-08 | 2.468E-06    |
| 2192 | 5.272E+04            | 1.436E-08 | 2.348E-06    |
| 2193 | 5.272E+04            | 1.366E-08 | 2.233E-06    |
| 2194 | 5.272E+04            | 1.299E-08 | 2.125E-06    |
| 2195 | 5.272E+04            | 1.236E-08 | 2.021E-06    |
| 2196 | 5.272E+04            | 1.175E-08 | 1.922E-06    |
| 2197 | 5.272E+04            | 1.118E-08 | 1.829E-06    |
| 2198 | 5.272E+04            | 1.064E-08 | 1.739E-06    |
| 2199 | 5.272E+04            | 1.012E-08 | 1.655E-06    |
| 2200 | 5.272E+04            | 9.623E-09 | 1.574E-06    |
| 2201 | 5.272E+04            | 9.154E-09 | 1.497E-06    |
| 2202 | 5.272E+04            | 8.707E-09 | 1.424E-06    |
| 2203 | 5.272E+04            | 8.283E-09 | 1.355E-06    |

Table D-41. Emission Rate of Methylene Chloride from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA3.PRM

| Model Parameters  |                      |  |              |
|---|----------------------|--|--------------|
| Lo : 170.00 m <sup>3</sup> / Mg                           |                      |  |              |
| k : 0.0500 1/yr   |                      |  |              |
| NMOC : 1800.00 ppmv                                       |                      |  |              |
| Methane : 65.6000 % volume                                |                      |  |              |
| Carbon Dioxide : 34.4000 % volume                         |                      |  |              |
| Air Pollutant : Methylene Chloride                        |                      |  |              |
| Molecular Wt = 84.90                                      |                      | Concentration = 1.840000 ppmV            |              |
| Landfill Parameters                                       |                      |  |              |
| Landfill type : Co-Disposal                               |                      |  |              |
| Year Opened : 1974 Current Year : 2004 Closure Year: 2004 |                      |  |              |
| Capacity : 52718 Mg                                       |                      |  |              |
| Average Acceptance Rate Required from                     |                      |  |              |
| Current Year to Closure Year : 0.00 Mg/year               |                      |  |              |
| Model Results   |                      |  |              |
| Year  | Refuse In Place (Mg) | Methylene Chloride Emission Rate (Mg/yr) | (Cubic m/yr) |
| 1975  | 5.272E+03            | 4.438E-04                                | 1.257E-01    |
| 1976  | 1.054E+04            | 8.660E-04                                | 2.452E-01    |
| 1977  | 1.582E+04            | 1.268E-03                                | 3.590E-01    |
| 1978  | 2.109E+04            | 1.650E-03                                | 4.672E-01    |
| 1979  | 2.636E+04            | 2.013E-03                                | 5.701E-01    |
| 1980  | 3.163E+04            | 2.359E-03                                | 6.679E-01    |
| 1981  | 3.690E+04            | 2.687E-03                                | 7.611E-01    |
| 1982  | 4.217E+04            | 3.000E-03                                | 8.496E-01    |
| 1983  | 4.745E+04            | 3.298E-03                                | 9.339E-01    |
| 1984  | 5.272E+04            | 3.581E-03                                | 1.014E+00    |
| 1985  | 5.272E+04            | 3.406E-03                                | 9.646E-01    |
| 1986  | 5.272E+04            | 3.240E-03                                | 9.175E-01    |
| 1987  | 5.272E+04            | 3.082E-03                                | 8.728E-01    |
| 1988  | 5.272E+04            | 2.932E-03                                | 8.302E-01    |
| 1989  | 5.272E+04            | 2.789E-03                                | 7.897E-01    |
| 1990  | 5.272E+04            | 2.653E-03                                | 7.512E-01    |
| 1991  | 5.272E+04            | 2.523E-03                                | 7.146E-01    |
| 1992  | 5.272E+04            | 2.400E-03                                | 6.797E-01    |
| 1993  | 5.272E+04            | 2.283E-03                                | 6.466E-01    |
| 1994  | 5.272E+04            | 2.172E-03                                | 6.150E-01    |
| 1995  | 5.272E+04            | 2.066E-03                                | 5.850E-01    |
| 1996  | 5.272E+04            | 1.965E-03                                | 5.565E-01    |
| 1997  | 5.272E+04            | 1.869E-03                                | 5.294E-01    |
| 1998  | 5.272E+04            | 1.778E-03                                | 5.035E-01    |
| 1999  | 5.272E+04            | 1.691E-03                                | 4.790E-01    |
| 2000  | 5.272E+04            | 1.609E-03                                | 4.556E-01    |
| 2001  | 5.272E+04            | 1.530E-03                                | 4.334E-01    |
| 2002  | 5.272E+04            | 1.456E-03                                | 4.123E-01    |
| 2003  | 5.272E+04            | 1.385E-03                                | 3.922E-01    |
| 2004  | 5.272E+04            | 1.317E-03                                | 3.730E-01    |
| 2005  | 5.272E+04            | 1.253E-03                                | 3.548E-01    |
| 2006  | 5.272E+04            | 1.192E-03                                | 3.375E-01    |
| 2007  | 5.272E+04            | 1.134E-03                                | 3.211E-01    |
| 2008  | 5.272E+04            | 1.078E-03                                | 3.054E-01    |
| 2009  | 5.272E+04            | 1.026E-03                                | 2.905E-01    |
| 2010  | 5.272E+04            | 9.759E-04                                | 2.764E-01    |
| 2011  | 5.272E+04            | 9.283E-04                                | 2.629E-01    |
| 2012  | 5.272E+04            | 8.830E-04                                | 2.501E-01    |
| 2013  | 5.272E+04            | 8.399E-04                                | 2.379E-01    |
| 2014  | 5.272E+04            | 7.990E-04                                | 2.263E-01    |
| 2015  | 5.272E+04            | 7.600E-04                                | 2.152E-01    |
| 2016  | 5.272E+04            | 7.229E-04                                | 2.047E-01    |
| 2017  | 5.272E+04            | 6.877E-04                                | 1.947E-01    |
| 2018  | 5.272E+04            | 6.541E-04                                | 1.852E-01    |

continued

Table D-41. Emission Rate of Methylene Chloride from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 5.272E+04            | 6.222E-04 | 1.762E-01    |
| 2020 | 5.272E+04            | 5.919E-04 | 1.676E-01    |
| 2021 | 5.272E+04            | 5.630E-04 | 1.594E-01    |
| 2022 | 5.272E+04            | 5.356E-04 | 1.517E-01    |
| 2023 | 5.272E+04            | 5.094E-04 | 1.443E-01    |
| 2024 | 5.272E+04            | 4.846E-04 | 1.372E-01    |
| 2025 | 5.272E+04            | 4.610E-04 | 1.305E-01    |
| 2026 | 5.272E+04            | 4.385E-04 | 1.242E-01    |
| 2027 | 5.272E+04            | 4.171E-04 | 1.181E-01    |
| 2028 | 5.272E+04            | 3.968E-04 | 1.124E-01    |
| 2029 | 5.272E+04            | 3.774E-04 | 1.069E-01    |
| 2030 | 5.272E+04            | 3.590E-04 | 1.017E-01    |
| 2031 | 5.272E+04            | 3.415E-04 | 9.671E-02    |
| 2032 | 5.272E+04            | 3.248E-04 | 9.199E-02    |
| 2033 | 5.272E+04            | 3.090E-04 | 8.750E-02    |
| 2034 | 5.272E+04            | 2.939E-04 | 8.324E-02    |
| 2035 | 5.272E+04            | 2.796E-04 | 7.918E-02    |
| 2036 | 5.272E+04            | 2.660E-04 | 7.531E-02    |
| 2037 | 5.272E+04            | 2.530E-04 | 7.164E-02    |
| 2038 | 5.272E+04            | 2.406E-04 | 6.815E-02    |
| 2039 | 5.272E+04            | 2.289E-04 | 6.482E-02    |
| 2040 | 5.272E+04            | 2.177E-04 | 6.166E-02    |
| 2041 | 5.272E+04            | 2.071E-04 | 5.866E-02    |
| 2042 | 5.272E+04            | 1.970E-04 | 5.579E-02    |
| 2043 | 5.272E+04            | 1.874E-04 | 5.307E-02    |
| 2044 | 5.272E+04            | 1.783E-04 | 5.048E-02    |
| 2045 | 5.272E+04            | 1.696E-04 | 4.802E-02    |
| 2046 | 5.272E+04            | 1.613E-04 | 4.568E-02    |
| 2047 | 5.272E+04            | 1.534E-04 | 4.345E-02    |
| 2048 | 5.272E+04            | 1.460E-04 | 4.133E-02    |
| 2049 | 5.272E+04            | 1.388E-04 | 3.932E-02    |
| 2050 | 5.272E+04            | 1.321E-04 | 3.740E-02    |
| 2051 | 5.272E+04            | 1.256E-04 | 3.558E-02    |
| 2052 | 5.272E+04            | 1.195E-04 | 3.384E-02    |
| 2053 | 5.272E+04            | 1.137E-04 | 3.219E-02    |
| 2054 | 5.272E+04            | 1.081E-04 | 3.062E-02    |
| 2055 | 5.272E+04            | 1.029E-04 | 2.913E-02    |
| 2056 | 5.272E+04            | 9.784E-05 | 2.771E-02    |
| 2057 | 5.272E+04            | 9.307E-05 | 2.636E-02    |
| 2058 | 5.272E+04            | 8.853E-05 | 2.507E-02    |
| 2059 | 5.272E+04            | 8.421E-05 | 2.385E-02    |
| 2060 | 5.272E+04            | 8.010E-05 | 2.268E-02    |
| 2061 | 5.272E+04            | 7.620E-05 | 2.158E-02    |
| 2062 | 5.272E+04            | 7.248E-05 | 2.053E-02    |
| 2063 | 5.272E+04            | 6.895E-05 | 1.952E-02    |
| 2064 | 5.272E+04            | 6.558E-05 | 1.857E-02    |
| 2065 | 5.272E+04            | 6.238E-05 | 1.767E-02    |
| 2066 | 5.272E+04            | 5.934E-05 | 1.680E-02    |
| 2067 | 5.272E+04            | 5.645E-05 | 1.599E-02    |
| 2068 | 5.272E+04            | 5.369E-05 | 1.521E-02    |
| 2069 | 5.272E+04            | 5.108E-05 | 1.446E-02    |
| 2070 | 5.272E+04            | 4.859E-05 | 1.376E-02    |
| 2071 | 5.272E+04            | 4.622E-05 | 1.309E-02    |
| 2072 | 5.272E+04            | 4.396E-05 | 1.245E-02    |
| 2073 | 5.272E+04            | 4.182E-05 | 1.184E-02    |
| 2074 | 5.272E+04            | 3.978E-05 | 1.126E-02    |
| 2075 | 5.272E+04            | 3.784E-05 | 1.072E-02    |
| 2076 | 5.272E+04            | 3.599E-05 | 1.019E-02    |
| 2077 | 5.272E+04            | 3.424E-05 | 9.696E-03    |
| 2078 | 5.272E+04            | 3.257E-05 | 9.223E-03    |
| 2079 | 5.272E+04            | 3.098E-05 | 8.773E-03    |
| 2080 | 5.272E+04            | 2.947E-05 | 8.345E-03    |
| 2081 | 5.272E+04            | 2.803E-05 | 7.938E-03    |
| 2082 | 5.272E+04            | 2.666E-05 | 7.551E-03    |
| 2083 | 5.272E+04            | 2.536E-05 | 7.183E-03    |
| 2084 | 5.272E+04            | 2.413E-05 | 6.832E-03    |
| 2085 | 5.272E+04            | 2.295E-05 | 6.499E-03    |
| 2086 | 5.272E+04            | 2.183E-05 | 6.182E-03    |
| 2087 | 5.272E+04            | 2.077E-05 | 5.881E-03    |
| 2088 | 5.272E+04            | 1.975E-05 | 5.594E-03    |

continued

Table D-41. Emission Rate of Methylene Chloride from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 5.272E+04            | 1.879E-05 | 5.321E-03    |
| 2090 | 5.272E+04            | 1.787E-05 | 5.062E-03    |
| 2091 | 5.272E+04            | 1.700E-05 | 4.815E-03    |
| 2092 | 5.272E+04            | 1.617E-05 | 4.580E-03    |
| 2093 | 5.272E+04            | 1.538E-05 | 4.357E-03    |
| 2094 | 5.272E+04            | 1.463E-05 | 4.144E-03    |
| 2095 | 5.272E+04            | 1.392E-05 | 3.942E-03    |
| 2096 | 5.272E+04            | 1.324E-05 | 3.750E-03    |
| 2097 | 5.272E+04            | 1.260E-05 | 3.567E-03    |
| 2098 | 5.272E+04            | 1.198E-05 | 3.393E-03    |
| 2099 | 5.272E+04            | 1.140E-05 | 3.227E-03    |
| 2100 | 5.272E+04            | 1.084E-05 | 3.070E-03    |
| 2101 | 5.272E+04            | 1.031E-05 | 2.920E-03    |
| 2102 | 5.272E+04            | 9.809E-06 | 2.778E-03    |
| 2103 | 5.272E+04            | 9.331E-06 | 2.642E-03    |
| 2104 | 5.272E+04            | 8.876E-06 | 2.513E-03    |
| 2105 | 5.272E+04            | 8.443E-06 | 2.391E-03    |
| 2106 | 5.272E+04            | 8.031E-06 | 2.274E-03    |
| 2107 | 5.272E+04            | 7.639E-06 | 2.163E-03    |
| 2108 | 5.272E+04            | 7.267E-06 | 2.058E-03    |
| 2109 | 5.272E+04            | 6.912E-06 | 1.958E-03    |
| 2110 | 5.272E+04            | 6.575E-06 | 1.862E-03    |
| 2111 | 5.272E+04            | 6.255E-06 | 1.771E-03    |
| 2112 | 5.272E+04            | 5.950E-06 | 1.685E-03    |
| 2113 | 5.272E+04            | 5.659E-06 | 1.603E-03    |
| 2114 | 5.272E+04            | 5.383E-06 | 1.525E-03    |
| 2115 | 5.272E+04            | 5.121E-06 | 1.450E-03    |
| 2116 | 5.272E+04            | 4.871E-06 | 1.379E-03    |
| 2117 | 5.272E+04            | 4.634E-06 | 1.312E-03    |
| 2118 | 5.272E+04            | 4.408E-06 | 1.248E-03    |
| 2119 | 5.272E+04            | 4.193E-06 | 1.187E-03    |
| 2120 | 5.272E+04            | 3.988E-06 | 1.129E-03    |
| 2121 | 5.272E+04            | 3.794E-06 | 1.074E-03    |
| 2122 | 5.272E+04            | 3.609E-06 | 1.022E-03    |
| 2123 | 5.272E+04            | 3.433E-06 | 9.721E-04    |
| 2124 | 5.272E+04            | 3.265E-06 | 9.247E-04    |
| 2125 | 5.272E+04            | 3.106E-06 | 8.796E-04    |
| 2126 | 5.272E+04            | 2.954E-06 | 8.367E-04    |
| 2127 | 5.272E+04            | 2.810E-06 | 7.959E-04    |
| 2128 | 5.272E+04            | 2.673E-06 | 7.570E-04    |
| 2129 | 5.272E+04            | 2.543E-06 | 7.201E-04    |
| 2130 | 5.272E+04            | 2.419E-06 | 6.850E-04    |
| 2131 | 5.272E+04            | 2.301E-06 | 6.516E-04    |
| 2132 | 5.272E+04            | 2.189E-06 | 6.198E-04    |
| 2133 | 5.272E+04            | 2.082E-06 | 5.896E-04    |
| 2134 | 5.272E+04            | 1.980E-06 | 5.608E-04    |
| 2135 | 5.272E+04            | 1.884E-06 | 5.335E-04    |
| 2136 | 5.272E+04            | 1.792E-06 | 5.075E-04    |
| 2137 | 5.272E+04            | 1.705E-06 | 4.827E-04    |
| 2138 | 5.272E+04            | 1.621E-06 | 4.592E-04    |
| 2139 | 5.272E+04            | 1.542E-06 | 4.368E-04    |
| 2140 | 5.272E+04            | 1.467E-06 | 4.155E-04    |
| 2141 | 5.272E+04            | 1.396E-06 | 3.952E-04    |
| 2142 | 5.272E+04            | 1.328E-06 | 3.759E-04    |
| 2143 | 5.272E+04            | 1.263E-06 | 3.576E-04    |
| 2144 | 5.272E+04            | 1.201E-06 | 3.402E-04    |
| 2145 | 5.272E+04            | 1.143E-06 | 3.236E-04    |
| 2146 | 5.272E+04            | 1.087E-06 | 3.078E-04    |
| 2147 | 5.272E+04            | 1.034E-06 | 2.928E-04    |
| 2148 | 5.272E+04            | 9.835E-07 | 2.785E-04    |
| 2149 | 5.272E+04            | 9.355E-07 | 2.649E-04    |
| 2150 | 5.272E+04            | 8.899E-07 | 2.520E-04    |
| 2151 | 5.272E+04            | 8.465E-07 | 2.397E-04    |
| 2152 | 5.272E+04            | 8.052E-07 | 2.280E-04    |
| 2153 | 5.272E+04            | 7.659E-07 | 2.169E-04    |
| 2154 | 5.272E+04            | 7.286E-07 | 2.063E-04    |
| 2155 | 5.272E+04            | 6.930E-07 | 1.963E-04    |
| 2156 | 5.272E+04            | 6.592E-07 | 1.867E-04    |
| 2157 | 5.272E+04            | 6.271E-07 | 1.776E-04    |
| 2158 | 5.272E+04            | 5.965E-07 | 1.689E-04    |

continued

Table D-41. Emission Rate of Methylene Chloride from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 5.272E+04            | 5.674E-07 | 1.607E-04    |
| 2160 | 5.272E+04            | 5.397E-07 | 1.528E-04    |
| 2161 | 5.272E+04            | 5.134E-07 | 1.454E-04    |
| 2162 | 5.272E+04            | 4.884E-07 | 1.383E-04    |
| 2163 | 5.272E+04            | 4.646E-07 | 1.316E-04    |
| 2164 | 5.272E+04            | 4.419E-07 | 1.251E-04    |
| 2165 | 5.272E+04            | 4.203E-07 | 1.190E-04    |
| 2166 | 5.272E+04            | 3.998E-07 | 1.132E-04    |
| 2167 | 5.272E+04            | 3.803E-07 | 1.077E-04    |
| 2168 | 5.272E+04            | 3.618E-07 | 1.025E-04    |
| 2169 | 5.272E+04            | 3.441E-07 | 9.746E-05    |
| 2170 | 5.272E+04            | 3.274E-07 | 9.271E-05    |
| 2171 | 5.272E+04            | 3.114E-07 | 8.818E-05    |
| 2172 | 5.272E+04            | 2.962E-07 | 8.388E-05    |
| 2173 | 5.272E+04            | 2.818E-07 | 7.979E-05    |
| 2174 | 5.272E+04            | 2.680E-07 | 7.590E-05    |
| 2175 | 5.272E+04            | 2.550E-07 | 7.220E-05    |
| 2176 | 5.272E+04            | 2.425E-07 | 6.868E-05    |
| 2177 | 5.272E+04            | 2.307E-07 | 6.533E-05    |
| 2178 | 5.272E+04            | 2.194E-07 | 6.214E-05    |
| 2179 | 5.272E+04            | 2.087E-07 | 5.911E-05    |
| 2180 | 5.272E+04            | 1.986E-07 | 5.623E-05    |
| 2181 | 5.272E+04            | 1.889E-07 | 5.349E-05    |
| 2182 | 5.272E+04            | 1.797E-07 | 5.088E-05    |
| 2183 | 5.272E+04            | 1.709E-07 | 4.840E-05    |
| 2184 | 5.272E+04            | 1.626E-07 | 4.604E-05    |
| 2185 | 5.272E+04            | 1.546E-07 | 4.379E-05    |
| 2186 | 5.272E+04            | 1.471E-07 | 4.166E-05    |
| 2187 | 5.272E+04            | 1.399E-07 | 3.962E-05    |
| 2188 | 5.272E+04            | 1.331E-07 | 3.769E-05    |
| 2189 | 5.272E+04            | 1.266E-07 | 3.585E-05    |
| 2190 | 5.272E+04            | 1.204E-07 | 3.410E-05    |
| 2191 | 5.272E+04            | 1.146E-07 | 3.244E-05    |
| 2192 | 5.272E+04            | 1.090E-07 | 3.086E-05    |
| 2193 | 5.272E+04            | 1.037E-07 | 2.935E-05    |
| 2194 | 5.272E+04            | 9.860E-08 | 2.792E-05    |
| 2195 | 5.272E+04            | 9.379E-08 | 2.656E-05    |
| 2196 | 5.272E+04            | 8.922E-08 | 2.527E-05    |
| 2197 | 5.272E+04            | 8.487E-08 | 2.403E-05    |
| 2198 | 5.272E+04            | 8.073E-08 | 2.286E-05    |
| 2199 | 5.272E+04            | 7.679E-08 | 2.175E-05    |
| 2200 | 5.272E+04            | 7.304E-08 | 2.069E-05    |
| 2201 | 5.272E+04            | 6.948E-08 | 1.968E-05    |
| 2202 | 5.272E+04            | 6.609E-08 | 1.872E-05    |
| 2203 | 5.272E+04            | 6.287E-08 | 1.780E-05    |

Table D-42. Emission Rate of Tetrachloroethene from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177-2.000\030177-1.003\BUSHVA-1\STRATA3.PRM

```

=====
Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
Air Pollutant : Tetrachloroethene
Molecular Wt = 165.83      Concentration =      1.260000 ppmV
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
Model Results
=====
Year      Refuse In Place (Mg)      Tetrachloroethene Emission Rate
      (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      5.936E-04      8.607E-02
1976      1.054E+04      1.158E-03      1.679E-01
1977      1.582E+04      1.695E-03      2.458E-01
1978      2.109E+04      2.206E-03      3.199E-01
1979      2.636E+04      2.692E-03      3.904E-01
1980      3.163E+04      3.155E-03      4.574E-01
1981      3.690E+04      3.595E-03      5.212E-01
1982      4.217E+04      4.013E-03      5.818E-01
1983      4.745E+04      4.411E-03      6.395E-01
1984      5.272E+04      4.789E-03      6.944E-01
1985      5.272E+04      4.556E-03      6.605E-01
1986      5.272E+04      4.334E-03      6.283E-01
1987      5.272E+04      4.122E-03      5.977E-01
1988      5.272E+04      3.921E-03      5.685E-01
1989      5.272E+04      3.730E-03      5.408E-01
1990      5.272E+04      3.548E-03      5.144E-01
1991      5.272E+04      3.375E-03      4.893E-01
1992      5.272E+04      3.210E-03      4.655E-01
1993      5.272E+04      3.054E-03      4.428E-01
1994      5.272E+04      2.905E-03      4.212E-01
1995      5.272E+04      2.763E-03      4.006E-01
1996      5.272E+04      2.628E-03      3.811E-01
1997      5.272E+04      2.500E-03      3.625E-01
1998      5.272E+04      2.378E-03      3.448E-01
1999      5.272E+04      2.262E-03      3.280E-01
2000      5.272E+04      2.152E-03      3.120E-01
2001      5.272E+04      2.047E-03      2.968E-01
2002      5.272E+04      1.947E-03      2.823E-01
2003      5.272E+04      1.852E-03      2.685E-01
2004      5.272E+04      1.762E-03      2.554E-01
2005      5.272E+04      1.676E-03      2.430E-01
2006      5.272E+04      1.594E-03      2.311E-01
2007      5.272E+04      1.516E-03      2.199E-01
2008      5.272E+04      1.443E-03      2.091E-01
2009      5.272E+04      1.372E-03      1.989E-01
2010      5.272E+04      1.305E-03      1.892E-01
2011      5.272E+04      1.242E-03      1.800E-01
2012      5.272E+04      1.181E-03      1.712E-01
2013      5.272E+04      1.123E-03      1.629E-01
2014      5.272E+04      1.069E-03      1.549E-01
2015      5.272E+04      1.017E-03      1.474E-01
2016      5.272E+04      9.670E-04      1.402E-01
2017      5.272E+04      9.198E-04      1.334E-01
2018      5.272E+04      8.749E-04      1.269E-01
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continued

Table D-42. Emission Rate of Tetrachloroethene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 5.272E+04            | 8.323E-04 | 1.207E-01    |
| 2020 | 5.272E+04            | 7.917E-04 | 1.148E-01    |
| 2021 | 5.272E+04            | 7.531E-04 | 1.092E-01    |
| 2022 | 5.272E+04            | 7.163E-04 | 1.039E-01    |
| 2023 | 5.272E+04            | 6.814E-04 | 9.879E-02    |
| 2024 | 5.272E+04            | 6.482E-04 | 9.397E-02    |
| 2025 | 5.272E+04            | 6.166E-04 | 8.939E-02    |
| 2026 | 5.272E+04            | 5.865E-04 | 8.503E-02    |
| 2027 | 5.272E+04            | 5.579E-04 | 8.088E-02    |
| 2028 | 5.272E+04            | 5.307E-04 | 7.694E-02    |
| 2029 | 5.272E+04            | 5.048E-04 | 7.319E-02    |
| 2030 | 5.272E+04            | 4.802E-04 | 6.962E-02    |
| 2031 | 5.272E+04            | 4.568E-04 | 6.622E-02    |
| 2032 | 5.272E+04            | 4.345E-04 | 6.299E-02    |
| 2033 | 5.272E+04            | 4.133E-04 | 5.992E-02    |
| 2034 | 5.272E+04            | 3.931E-04 | 5.700E-02    |
| 2035 | 5.272E+04            | 3.740E-04 | 5.422E-02    |
| 2036 | 5.272E+04            | 3.557E-04 | 5.157E-02    |
| 2037 | 5.272E+04            | 3.384E-04 | 4.906E-02    |
| 2038 | 5.272E+04            | 3.219E-04 | 4.667E-02    |
| 2039 | 5.272E+04            | 3.062E-04 | 4.439E-02    |
| 2040 | 5.272E+04            | 2.912E-04 | 4.223E-02    |
| 2041 | 5.272E+04            | 2.770E-04 | 4.017E-02    |
| 2042 | 5.272E+04            | 2.635E-04 | 3.821E-02    |
| 2043 | 5.272E+04            | 2.507E-04 | 3.634E-02    |
| 2044 | 5.272E+04            | 2.384E-04 | 3.457E-02    |
| 2045 | 5.272E+04            | 2.268E-04 | 3.289E-02    |
| 2046 | 5.272E+04            | 2.158E-04 | 3.128E-02    |
| 2047 | 5.272E+04            | 2.052E-04 | 2.976E-02    |
| 2048 | 5.272E+04            | 1.952E-04 | 2.830E-02    |
| 2049 | 5.272E+04            | 1.857E-04 | 2.692E-02    |
| 2050 | 5.272E+04            | 1.766E-04 | 2.561E-02    |
| 2051 | 5.272E+04            | 1.680E-04 | 2.436E-02    |
| 2052 | 5.272E+04            | 1.598E-04 | 2.317E-02    |
| 2053 | 5.272E+04            | 1.520E-04 | 2.204E-02    |
| 2054 | 5.272E+04            | 1.446E-04 | 2.097E-02    |
| 2055 | 5.272E+04            | 1.376E-04 | 1.995E-02    |
| 2056 | 5.272E+04            | 1.309E-04 | 1.897E-02    |
| 2057 | 5.272E+04            | 1.245E-04 | 1.805E-02    |
| 2058 | 5.272E+04            | 1.184E-04 | 1.717E-02    |
| 2059 | 5.272E+04            | 1.126E-04 | 1.633E-02    |
| 2060 | 5.272E+04            | 1.071E-04 | 1.553E-02    |
| 2061 | 5.272E+04            | 1.019E-04 | 1.478E-02    |
| 2062 | 5.272E+04            | 9.695E-05 | 1.406E-02    |
| 2063 | 5.272E+04            | 9.222E-05 | 1.337E-02    |
| 2064 | 5.272E+04            | 8.772E-05 | 1.272E-02    |
| 2065 | 5.272E+04            | 8.344E-05 | 1.210E-02    |
| 2066 | 5.272E+04            | 7.937E-05 | 1.151E-02    |
| 2067 | 5.272E+04            | 7.550E-05 | 1.095E-02    |
| 2068 | 5.272E+04            | 7.182E-05 | 1.041E-02    |
| 2069 | 5.272E+04            | 6.832E-05 | 9.905E-03    |
| 2070 | 5.272E+04            | 6.498E-05 | 9.422E-03    |
| 2071 | 5.272E+04            | 6.182E-05 | 8.962E-03    |
| 2072 | 5.272E+04            | 5.880E-05 | 8.525E-03    |
| 2073 | 5.272E+04            | 5.593E-05 | 8.109E-03    |
| 2074 | 5.272E+04            | 5.321E-05 | 7.714E-03    |
| 2075 | 5.272E+04            | 5.061E-05 | 7.338E-03    |
| 2076 | 5.272E+04            | 4.814E-05 | 6.980E-03    |
| 2077 | 5.272E+04            | 4.579E-05 | 6.639E-03    |
| 2078 | 5.272E+04            | 4.356E-05 | 6.316E-03    |
| 2079 | 5.272E+04            | 4.144E-05 | 6.008E-03    |
| 2080 | 5.272E+04            | 3.942E-05 | 5.715E-03    |
| 2081 | 5.272E+04            | 3.749E-05 | 5.436E-03    |
| 2082 | 5.272E+04            | 3.566E-05 | 5.171E-03    |
| 2083 | 5.272E+04            | 3.393E-05 | 4.919E-03    |
| 2084 | 5.272E+04            | 3.227E-05 | 4.679E-03    |
| 2085 | 5.272E+04            | 3.070E-05 | 4.451E-03    |
| 2086 | 5.272E+04            | 2.920E-05 | 4.233E-03    |
| 2087 | 5.272E+04            | 2.778E-05 | 4.027E-03    |
| 2088 | 5.272E+04            | 2.642E-05 | 3.831E-03    |

continued



Table D-42. Emission Rate of Tetrachloroethene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 5.272E+04            | 2.513E-05 | 3.644E-03    |
| 2090 | 5.272E+04            | 2.391E-05 | 3.466E-03    |
| 2091 | 5.272E+04            | 2.274E-05 | 3.297E-03    |
| 2092 | 5.272E+04            | 2.163E-05 | 3.136E-03    |
| 2093 | 5.272E+04            | 2.058E-05 | 2.983E-03    |
| 2094 | 5.272E+04            | 1.957E-05 | 2.838E-03    |
| 2095 | 5.272E+04            | 1.862E-05 | 2.699E-03    |
| 2096 | 5.272E+04            | 1.771E-05 | 2.568E-03    |
| 2097 | 5.272E+04            | 1.685E-05 | 2.442E-03    |
| 2098 | 5.272E+04            | 1.603E-05 | 2.323E-03    |
| 2099 | 5.272E+04            | 1.524E-05 | 2.210E-03    |
| 2100 | 5.272E+04            | 1.450E-05 | 2.102E-03    |
| 2101 | 5.272E+04            | 1.379E-05 | 2.000E-03    |
| 2102 | 5.272E+04            | 1.312E-05 | 1.902E-03    |
| 2103 | 5.272E+04            | 1.248E-05 | 1.809E-03    |
| 2104 | 5.272E+04            | 1.187E-05 | 1.721E-03    |
| 2105 | 5.272E+04            | 1.129E-05 | 1.637E-03    |
| 2106 | 5.272E+04            | 1.074E-05 | 1.557E-03    |
| 2107 | 5.272E+04            | 1.022E-05 | 1.481E-03    |
| 2108 | 5.272E+04            | 9.720E-06 | 1.409E-03    |
| 2109 | 5.272E+04            | 9.246E-06 | 1.340E-03    |
| 2110 | 5.272E+04            | 8.795E-06 | 1.275E-03    |
| 2111 | 5.272E+04            | 8.366E-06 | 1.213E-03    |
| 2112 | 5.272E+04            | 7.958E-06 | 1.154E-03    |
| 2113 | 5.272E+04            | 7.570E-06 | 1.097E-03    |
| 2114 | 5.272E+04            | 7.201E-06 | 1.044E-03    |
| 2115 | 5.272E+04            | 6.849E-06 | 9.930E-04    |
| 2116 | 5.272E+04            | 6.515E-06 | 9.446E-04    |
| 2117 | 5.272E+04            | 6.198E-06 | 8.985E-04    |
| 2118 | 5.272E+04            | 5.895E-06 | 8.547E-04    |
| 2119 | 5.272E+04            | 5.608E-06 | 8.130E-04    |
| 2120 | 5.272E+04            | 5.334E-06 | 7.734E-04    |
| 2121 | 5.272E+04            | 5.074E-06 | 7.357E-04    |
| 2122 | 5.272E+04            | 4.827E-06 | 6.998E-04    |
| 2123 | 5.272E+04            | 4.591E-06 | 6.657E-04    |
| 2124 | 5.272E+04            | 4.367E-06 | 6.332E-04    |
| 2125 | 5.272E+04            | 4.154E-06 | 6.023E-04    |
| 2126 | 5.272E+04            | 3.952E-06 | 5.729E-04    |
| 2127 | 5.272E+04            | 3.759E-06 | 5.450E-04    |
| 2128 | 5.272E+04            | 3.576E-06 | 5.184E-04    |
| 2129 | 5.272E+04            | 3.401E-06 | 4.931E-04    |
| 2130 | 5.272E+04            | 3.235E-06 | 4.691E-04    |
| 2131 | 5.272E+04            | 3.078E-06 | 4.462E-04    |
| 2132 | 5.272E+04            | 2.928E-06 | 4.244E-04    |
| 2133 | 5.272E+04            | 2.785E-06 | 4.037E-04    |
| 2134 | 5.272E+04            | 2.649E-06 | 3.841E-04    |
| 2135 | 5.272E+04            | 2.520E-06 | 3.653E-04    |
| 2136 | 5.272E+04            | 2.397E-06 | 3.475E-04    |
| 2137 | 5.272E+04            | 2.280E-06 | 3.306E-04    |
| 2138 | 5.272E+04            | 2.169E-06 | 3.144E-04    |
| 2139 | 5.272E+04            | 2.063E-06 | 2.991E-04    |
| 2140 | 5.272E+04            | 1.962E-06 | 2.845E-04    |
| 2141 | 5.272E+04            | 1.867E-06 | 2.706E-04    |
| 2142 | 5.272E+04            | 1.776E-06 | 2.574E-04    |
| 2143 | 5.272E+04            | 1.689E-06 | 2.449E-04    |
| 2144 | 5.272E+04            | 1.607E-06 | 2.329E-04    |
| 2145 | 5.272E+04            | 1.528E-06 | 2.216E-04    |
| 2146 | 5.272E+04            | 1.454E-06 | 2.108E-04    |
| 2147 | 5.272E+04            | 1.383E-06 | 2.005E-04    |
| 2148 | 5.272E+04            | 1.315E-06 | 1.907E-04    |
| 2149 | 5.272E+04            | 1.251E-06 | 1.814E-04    |
| 2150 | 5.272E+04            | 1.190E-06 | 1.726E-04    |
| 2151 | 5.272E+04            | 1.132E-06 | 1.641E-04    |
| 2152 | 5.272E+04            | 1.077E-06 | 1.561E-04    |
| 2153 | 5.272E+04            | 1.024E-06 | 1.485E-04    |
| 2154 | 5.272E+04            | 9.745E-07 | 1.413E-04    |
| 2155 | 5.272E+04            | 9.270E-07 | 1.344E-04    |
| 2156 | 5.272E+04            | 8.818E-07 | 1.278E-04    |
| 2157 | 5.272E+04            | 8.387E-07 | 1.216E-04    |
| 2158 | 5.272E+04            | 7.978E-07 | 1.157E-04    |

continued

Table D-42. Emission Rate of Tetrachloroethene from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 5.272E+04            | 7.589E-07 | 1.100E-04    |
| 2160 | 5.272E+04            | 7.219E-07 | 1.047E-04    |
| 2161 | 5.272E+04            | 6.867E-07 | 9.956E-05    |
| 2162 | 5.272E+04            | 6.532E-07 | 9.471E-05    |
| 2163 | 5.272E+04            | 6.214E-07 | 9.009E-05    |
| 2164 | 5.272E+04            | 5.911E-07 | 8.569E-05    |
| 2165 | 5.272E+04            | 5.622E-07 | 8.151E-05    |
| 2166 | 5.272E+04            | 5.348E-07 | 7.754E-05    |
| 2167 | 5.272E+04            | 5.087E-07 | 7.376E-05    |
| 2168 | 5.272E+04            | 4.839E-07 | 7.016E-05    |
| 2169 | 5.272E+04            | 4.603E-07 | 6.674E-05    |
| 2170 | 5.272E+04            | 4.379E-07 | 6.348E-05    |
| 2171 | 5.272E+04            | 4.165E-07 | 6.039E-05    |
| 2172 | 5.272E+04            | 3.962E-07 | 5.744E-05    |
| 2173 | 5.272E+04            | 3.769E-07 | 5.464E-05    |
| 2174 | 5.272E+04            | 3.585E-07 | 5.198E-05    |
| 2175 | 5.272E+04            | 3.410E-07 | 4.944E-05    |
| 2176 | 5.272E+04            | 3.244E-07 | 4.703E-05    |
| 2177 | 5.272E+04            | 3.086E-07 | 4.474E-05    |
| 2178 | 5.272E+04            | 2.935E-07 | 4.255E-05    |
| 2179 | 5.272E+04            | 2.792E-07 | 4.048E-05    |
| 2180 | 5.272E+04            | 2.656E-07 | 3.850E-05    |
| 2181 | 5.272E+04            | 2.526E-07 | 3.663E-05    |
| 2182 | 5.272E+04            | 2.403E-07 | 3.484E-05    |
| 2183 | 5.272E+04            | 2.286E-07 | 3.314E-05    |
| 2184 | 5.272E+04            | 2.174E-07 | 3.152E-05    |
| 2185 | 5.272E+04            | 2.068E-07 | 2.999E-05    |
| 2186 | 5.272E+04            | 1.967E-07 | 2.852E-05    |
| 2187 | 5.272E+04            | 1.871E-07 | 2.713E-05    |
| 2188 | 5.272E+04            | 1.780E-07 | 2.581E-05    |
| 2189 | 5.272E+04            | 1.693E-07 | 2.455E-05    |
| 2190 | 5.272E+04            | 1.611E-07 | 2.335E-05    |
| 2191 | 5.272E+04            | 1.532E-07 | 2.222E-05    |
| 2192 | 5.272E+04            | 1.458E-07 | 2.113E-05    |
| 2193 | 5.272E+04            | 1.386E-07 | 2.010E-05    |
| 2194 | 5.272E+04            | 1.319E-07 | 1.912E-05    |
| 2195 | 5.272E+04            | 1.255E-07 | 1.819E-05    |
| 2196 | 5.272E+04            | 1.193E-07 | 1.730E-05    |
| 2197 | 5.272E+04            | 1.135E-07 | 1.646E-05    |
| 2198 | 5.272E+04            | 1.080E-07 | 1.565E-05    |
| 2199 | 5.272E+04            | 1.027E-07 | 1.489E-05    |
| 2200 | 5.272E+04            | 9.770E-08 | 1.417E-05    |
| 2201 | 5.272E+04            | 9.294E-08 | 1.347E-05    |
| 2202 | 5.272E+04            | 8.840E-08 | 1.282E-05    |
| 2203 | 5.272E+04            | 8.409E-08 | 1.219E-05    |

Table D-43. Emission Rate of Toluene from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA3.PRM

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=====
Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
Air Pollutant : Toluene (HAP/VOC)
Molecular Wt = 92.14      Concentration = 2.090000 ppmV
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
Model Results
=====
Year      Refuse In Place (Mg)      Toluene (HAP/VOC) Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      5.471E-04      1.428E-01
1976      1.054E+04      1.068E-03      2.786E-01
1977      1.582E+04      1.563E-03      4.077E-01
1978      2.109E+04      2.034E-03      5.306E-01
1979      2.636E+04      2.481E-03      6.475E-01
1980      3.163E+04      2.908E-03      7.587E-01
1981      3.690E+04      3.313E-03      8.645E-01
1982      4.217E+04      3.698E-03      9.651E-01
1983      4.745E+04      4.065E-03      1.061E+00
1984      5.272E+04      4.414E-03      1.152E+00
1985      5.272E+04      4.199E-03      1.096E+00
1986      5.272E+04      3.994E-03      1.042E+00
1987      5.272E+04      3.799E-03      9.914E-01
1988      5.272E+04      3.614E-03      9.430E-01
1989      5.272E+04      3.438E-03      8.970E-01
1990      5.272E+04      3.270E-03      8.533E-01
1991      5.272E+04      3.111E-03      8.117E-01
1992      5.272E+04      2.959E-03      7.721E-01
1993      5.272E+04      2.815E-03      7.344E-01
1994      5.272E+04      2.677E-03      6.986E-01
1995      5.272E+04      2.547E-03      6.645E-01
1996      5.272E+04      2.422E-03      6.321E-01
1997      5.272E+04      2.304E-03      6.013E-01
1998      5.272E+04      2.192E-03      5.720E-01
1999      5.272E+04      2.085E-03      5.441E-01
2000      5.272E+04      1.983E-03      5.175E-01
2001      5.272E+04      1.887E-03      4.923E-01
2002      5.272E+04      1.795E-03      4.683E-01
2003      5.272E+04      1.707E-03      4.454E-01
2004      5.272E+04      1.624E-03      4.237E-01
2005      5.272E+04      1.545E-03      4.031E-01
2006      5.272E+04      1.469E-03      3.834E-01
2007      5.272E+04      1.398E-03      3.647E-01
2008      5.272E+04      1.329E-03      3.469E-01
2009      5.272E+04      1.265E-03      3.300E-01
2010      5.272E+04      1.203E-03      3.139E-01
2011      5.272E+04      1.144E-03      2.986E-01
2012      5.272E+04      1.088E-03      2.840E-01
2013      5.272E+04      1.035E-03      2.702E-01
2014      5.272E+04      9.849E-04      2.570E-01
2015      5.272E+04      9.369E-04      2.445E-01
2016      5.272E+04      8.912E-04      2.325E-01
2017      5.272E+04      8.477E-04      2.212E-01
2018      5.272E+04      8.064E-04      2.104E-01
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continued

Table D-43. Emission Rate of Toluene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 5.272E+04            | 7.671E-04 | 2.002E-01    |
| 2020 | 5.272E+04            | 7.296E-04 | 1.904E-01    |
| 2021 | 5.272E+04            | 6.941E-04 | 1.811E-01    |
| 2022 | 5.272E+04            | 6.602E-04 | 1.723E-01    |
| 2023 | 5.272E+04            | 6.280E-04 | 1.639E-01    |
| 2024 | 5.272E+04            | 5.974E-04 | 1.559E-01    |
| 2025 | 5.272E+04            | 5.682E-04 | 1.483E-01    |
| 2026 | 5.272E+04            | 5.405E-04 | 1.410E-01    |
| 2027 | 5.272E+04            | 5.142E-04 | 1.342E-01    |
| 2028 | 5.272E+04            | 4.891E-04 | 1.276E-01    |
| 2029 | 5.272E+04            | 4.652E-04 | 1.214E-01    |
| 2030 | 5.272E+04            | 4.425E-04 | 1.155E-01    |
| 2031 | 5.272E+04            | 4.210E-04 | 1.098E-01    |
| 2032 | 5.272E+04            | 4.004E-04 | 1.045E-01    |
| 2033 | 5.272E+04            | 3.809E-04 | 9.939E-02    |
| 2034 | 5.272E+04            | 3.623E-04 | 9.454E-02    |
| 2035 | 5.272E+04            | 3.447E-04 | 8.993E-02    |
| 2036 | 5.272E+04            | 3.278E-04 | 8.555E-02    |
| 2037 | 5.272E+04            | 3.119E-04 | 8.138E-02    |
| 2038 | 5.272E+04            | 2.966E-04 | 7.741E-02    |
| 2039 | 5.272E+04            | 2.822E-04 | 7.363E-02    |
| 2040 | 5.272E+04            | 2.684E-04 | 7.004E-02    |
| 2041 | 5.272E+04            | 2.553E-04 | 6.662E-02    |
| 2042 | 5.272E+04            | 2.429E-04 | 6.338E-02    |
| 2043 | 5.272E+04            | 2.310E-04 | 6.028E-02    |
| 2044 | 5.272E+04            | 2.198E-04 | 5.734E-02    |
| 2045 | 5.272E+04            | 2.090E-04 | 5.455E-02    |
| 2046 | 5.272E+04            | 1.989E-04 | 5.189E-02    |
| 2047 | 5.272E+04            | 1.892E-04 | 4.936E-02    |
| 2048 | 5.272E+04            | 1.799E-04 | 4.695E-02    |
| 2049 | 5.272E+04            | 1.712E-04 | 4.466E-02    |
| 2050 | 5.272E+04            | 1.628E-04 | 4.248E-02    |
| 2051 | 5.272E+04            | 1.549E-04 | 4.041E-02    |
| 2052 | 5.272E+04            | 1.473E-04 | 3.844E-02    |
| 2053 | 5.272E+04            | 1.401E-04 | 3.656E-02    |
| 2054 | 5.272E+04            | 1.333E-04 | 3.478E-02    |
| 2055 | 5.272E+04            | 1.268E-04 | 3.308E-02    |
| 2056 | 5.272E+04            | 1.206E-04 | 3.147E-02    |
| 2057 | 5.272E+04            | 1.147E-04 | 2.994E-02    |
| 2058 | 5.272E+04            | 1.091E-04 | 2.848E-02    |
| 2059 | 5.272E+04            | 1.038E-04 | 2.709E-02    |
| 2060 | 5.272E+04            | 9.875E-05 | 2.577E-02    |
| 2061 | 5.272E+04            | 9.393E-05 | 2.451E-02    |
| 2062 | 5.272E+04            | 8.935E-05 | 2.331E-02    |
| 2063 | 5.272E+04            | 8.499E-05 | 2.218E-02    |
| 2064 | 5.272E+04            | 8.085E-05 | 2.110E-02    |
| 2065 | 5.272E+04            | 7.690E-05 | 2.007E-02    |
| 2066 | 5.272E+04            | 7.315E-05 | 1.909E-02    |
| 2067 | 5.272E+04            | 6.959E-05 | 1.816E-02    |
| 2068 | 5.272E+04            | 6.619E-05 | 1.727E-02    |
| 2069 | 5.272E+04            | 6.296E-05 | 1.643E-02    |
| 2070 | 5.272E+04            | 5.989E-05 | 1.563E-02    |
| 2071 | 5.272E+04            | 5.697E-05 | 1.487E-02    |
| 2072 | 5.272E+04            | 5.419E-05 | 1.414E-02    |
| 2073 | 5.272E+04            | 5.155E-05 | 1.345E-02    |
| 2074 | 5.272E+04            | 4.904E-05 | 1.280E-02    |
| 2075 | 5.272E+04            | 4.664E-05 | 1.217E-02    |
| 2076 | 5.272E+04            | 4.437E-05 | 1.158E-02    |
| 2077 | 5.272E+04            | 4.221E-05 | 1.101E-02    |
| 2078 | 5.272E+04            | 4.015E-05 | 1.048E-02    |
| 2079 | 5.272E+04            | 3.819E-05 | 9.965E-03    |
| 2080 | 5.272E+04            | 3.633E-05 | 9.479E-03    |
| 2081 | 5.272E+04            | 3.455E-05 | 9.017E-03    |
| 2082 | 5.272E+04            | 3.287E-05 | 8.577E-03    |
| 2083 | 5.272E+04            | 3.127E-05 | 8.159E-03    |
| 2084 | 5.272E+04            | 2.974E-05 | 7.761E-03    |
| 2085 | 5.272E+04            | 2.829E-05 | 7.382E-03    |
| 2086 | 5.272E+04            | 2.691E-05 | 7.022E-03    |
| 2087 | 5.272E+04            | 2.560E-05 | 6.680E-03    |
| 2088 | 5.272E+04            | 2.435E-05 | 6.354E-03    |

continued

Table D-43. Emission Rate of Toluene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 5.272E+04            | 2.316E-05 | 6.044E-03    |
| 2090 | 5.272E+04            | 2.203E-05 | 5.749E-03    |
| 2091 | 5.272E+04            | 2.096E-05 | 5.469E-03    |
| 2092 | 5.272E+04            | 1.994E-05 | 5.202E-03    |
| 2093 | 5.272E+04            | 1.896E-05 | 4.948E-03    |
| 2094 | 5.272E+04            | 1.804E-05 | 4.707E-03    |
| 2095 | 5.272E+04            | 1.716E-05 | 4.478E-03    |
| 2096 | 5.272E+04            | 1.632E-05 | 4.259E-03    |
| 2097 | 5.272E+04            | 1.553E-05 | 4.051E-03    |
| 2098 | 5.272E+04            | 1.477E-05 | 3.854E-03    |
| 2099 | 5.272E+04            | 1.405E-05 | 3.666E-03    |
| 2100 | 5.272E+04            | 1.336E-05 | 3.487E-03    |
| 2101 | 5.272E+04            | 1.271E-05 | 3.317E-03    |
| 2102 | 5.272E+04            | 1.209E-05 | 3.155E-03    |
| 2103 | 5.272E+04            | 1.150E-05 | 3.001E-03    |
| 2104 | 5.272E+04            | 1.094E-05 | 2.855E-03    |
| 2105 | 5.272E+04            | 1.041E-05 | 2.716E-03    |
| 2106 | 5.272E+04            | 9.900E-06 | 2.583E-03    |
| 2107 | 5.272E+04            | 9.417E-06 | 2.457E-03    |
| 2108 | 5.272E+04            | 8.958E-06 | 2.337E-03    |
| 2109 | 5.272E+04            | 8.521E-06 | 2.223E-03    |
| 2110 | 5.272E+04            | 8.106E-06 | 2.115E-03    |
| 2111 | 5.272E+04            | 7.710E-06 | 2.012E-03    |
| 2112 | 5.272E+04            | 7.334E-06 | 1.914E-03    |
| 2113 | 5.272E+04            | 6.977E-06 | 1.820E-03    |
| 2114 | 5.272E+04            | 6.636E-06 | 1.732E-03    |
| 2115 | 5.272E+04            | 6.313E-06 | 1.647E-03    |
| 2116 | 5.272E+04            | 6.005E-06 | 1.567E-03    |
| 2117 | 5.272E+04            | 5.712E-06 | 1.490E-03    |
| 2118 | 5.272E+04            | 5.433E-06 | 1.418E-03    |
| 2119 | 5.272E+04            | 5.168E-06 | 1.349E-03    |
| 2120 | 5.272E+04            | 4.916E-06 | 1.283E-03    |
| 2121 | 5.272E+04            | 4.677E-06 | 1.220E-03    |
| 2122 | 5.272E+04            | 4.448E-06 | 1.161E-03    |
| 2123 | 5.272E+04            | 4.231E-06 | 1.104E-03    |
| 2124 | 5.272E+04            | 4.025E-06 | 1.050E-03    |
| 2125 | 5.272E+04            | 3.829E-06 | 9.991E-04    |
| 2126 | 5.272E+04            | 3.642E-06 | 9.503E-04    |
| 2127 | 5.272E+04            | 3.464E-06 | 9.040E-04    |
| 2128 | 5.272E+04            | 3.295E-06 | 8.599E-04    |
| 2129 | 5.272E+04            | 3.135E-06 | 8.180E-04    |
| 2130 | 5.272E+04            | 2.982E-06 | 7.781E-04    |
| 2131 | 5.272E+04            | 2.836E-06 | 7.401E-04    |
| 2132 | 5.272E+04            | 2.698E-06 | 7.040E-04    |
| 2133 | 5.272E+04            | 2.567E-06 | 6.697E-04    |
| 2134 | 5.272E+04            | 2.441E-06 | 6.370E-04    |
| 2135 | 5.272E+04            | 2.322E-06 | 6.060E-04    |
| 2136 | 5.272E+04            | 2.209E-06 | 5.764E-04    |
| 2137 | 5.272E+04            | 2.101E-06 | 5.483E-04    |
| 2138 | 5.272E+04            | 1.999E-06 | 5.216E-04    |
| 2139 | 5.272E+04            | 1.901E-06 | 4.961E-04    |
| 2140 | 5.272E+04            | 1.809E-06 | 4.719E-04    |
| 2141 | 5.272E+04            | 1.720E-06 | 4.489E-04    |
| 2142 | 5.272E+04            | 1.636E-06 | 4.270E-04    |
| 2143 | 5.272E+04            | 1.557E-06 | 4.062E-04    |
| 2144 | 5.272E+04            | 1.481E-06 | 3.864E-04    |
| 2145 | 5.272E+04            | 1.409E-06 | 3.675E-04    |
| 2146 | 5.272E+04            | 1.340E-06 | 3.496E-04    |
| 2147 | 5.272E+04            | 1.274E-06 | 3.326E-04    |
| 2148 | 5.272E+04            | 1.212E-06 | 3.163E-04    |
| 2149 | 5.272E+04            | 1.153E-06 | 3.009E-04    |
| 2150 | 5.272E+04            | 1.097E-06 | 2.862E-04    |
| 2151 | 5.272E+04            | 1.043E-06 | 2.723E-04    |
| 2152 | 5.272E+04            | 9.926E-07 | 2.590E-04    |
| 2153 | 5.272E+04            | 9.442E-07 | 2.464E-04    |
| 2154 | 5.272E+04            | 8.981E-07 | 2.344E-04    |
| 2155 | 5.272E+04            | 8.543E-07 | 2.229E-04    |
| 2156 | 5.272E+04            | 8.127E-07 | 2.121E-04    |
| 2157 | 5.272E+04            | 7.730E-07 | 2.017E-04    |
| 2158 | 5.272E+04            | 7.353E-07 | 1.919E-04    |

continued

Table D-43. Emission Rate of Toluene from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 5.272E+04            | 6.995E-07 | 1.825E-04    |
| 2160 | 5.272E+04            | 6.653E-07 | 1.736E-04    |
| 2161 | 5.272E+04            | 6.329E-07 | 1.651E-04    |
| 2162 | 5.272E+04            | 6.020E-07 | 1.571E-04    |
| 2163 | 5.272E+04            | 5.727E-07 | 1.494E-04    |
| 2164 | 5.272E+04            | 5.447E-07 | 1.421E-04    |
| 2165 | 5.272E+04            | 5.182E-07 | 1.352E-04    |
| 2166 | 5.272E+04            | 4.929E-07 | 1.286E-04    |
| 2167 | 5.272E+04            | 4.689E-07 | 1.223E-04    |
| 2168 | 5.272E+04            | 4.460E-07 | 1.164E-04    |
| 2169 | 5.272E+04            | 4.242E-07 | 1.107E-04    |
| 2170 | 5.272E+04            | 4.036E-07 | 1.053E-04    |
| 2171 | 5.272E+04            | 3.839E-07 | 1.002E-04    |
| 2172 | 5.272E+04            | 3.651E-07 | 9.528E-05    |
| 2173 | 5.272E+04            | 3.473E-07 | 9.063E-05    |
| 2174 | 5.272E+04            | 3.304E-07 | 8.621E-05    |
| 2175 | 5.272E+04            | 3.143E-07 | 8.201E-05    |
| 2176 | 5.272E+04            | 2.990E-07 | 7.801E-05    |
| 2177 | 5.272E+04            | 2.844E-07 | 7.420E-05    |
| 2178 | 5.272E+04            | 2.705E-07 | 7.059E-05    |
| 2179 | 5.272E+04            | 2.573E-07 | 6.714E-05    |
| 2180 | 5.272E+04            | 2.448E-07 | 6.387E-05    |
| 2181 | 5.272E+04            | 2.328E-07 | 6.075E-05    |
| 2182 | 5.272E+04            | 2.215E-07 | 5.779E-05    |
| 2183 | 5.272E+04            | 2.107E-07 | 5.497E-05    |
| 2184 | 5.272E+04            | 2.004E-07 | 5.229E-05    |
| 2185 | 5.272E+04            | 1.906E-07 | 4.974E-05    |
| 2186 | 5.272E+04            | 1.813E-07 | 4.731E-05    |
| 2187 | 5.272E+04            | 1.725E-07 | 4.501E-05    |
| 2188 | 5.272E+04            | 1.641E-07 | 4.281E-05    |
| 2189 | 5.272E+04            | 1.561E-07 | 4.072E-05    |
| 2190 | 5.272E+04            | 1.485E-07 | 3.874E-05    |
| 2191 | 5.272E+04            | 1.412E-07 | 3.685E-05    |
| 2192 | 5.272E+04            | 1.343E-07 | 3.505E-05    |
| 2193 | 5.272E+04            | 1.278E-07 | 3.334E-05    |
| 2194 | 5.272E+04            | 1.215E-07 | 3.172E-05    |
| 2195 | 5.272E+04            | 1.156E-07 | 3.017E-05    |
| 2196 | 5.272E+04            | 1.100E-07 | 2.870E-05    |
| 2197 | 5.272E+04            | 1.046E-07 | 2.730E-05    |
| 2198 | 5.272E+04            | 9.951E-08 | 2.597E-05    |
| 2199 | 5.272E+04            | 9.466E-08 | 2.470E-05    |
| 2200 | 5.272E+04            | 9.004E-08 | 2.350E-05    |
| 2201 | 5.272E+04            | 8.565E-08 | 2.235E-05    |
| 2202 | 5.272E+04            | 8.148E-08 | 2.126E-05    |
| 2203 | 5.272E+04            | 7.750E-08 | 2.022E-05    |

Table D-44. Emission Rate of Trichloroethene from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA3.PRM

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=====
Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
Air Pollutant : Trichloroethene (HAP/VOC)
Molecular Wt = 131.38      Concentration =      1.160000 ppmV
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
Model Results
=====
Year      Refuse In Place (Mg)      Trichloroethene (HAP/VOC) Emission Rate
      (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      4.330E-04      7.924E-02
1976      1.054E+04      8.449E-04      1.546E-01
1977      1.582E+04      1.237E-03      2.263E-01
1978      2.109E+04      1.609E-03      2.945E-01
1979      2.636E+04      1.964E-03      3.594E-01
1980      3.163E+04      2.301E-03      4.211E-01
1981      3.690E+04      2.622E-03      4.798E-01
1982      4.217E+04      2.927E-03      5.356E-01
1983      4.745E+04      3.217E-03      5.887E-01
1984      5.272E+04      3.493E-03      6.393E-01
1985      5.272E+04      3.323E-03      6.081E-01
1986      5.272E+04      3.161E-03      5.784E-01
1987      5.272E+04      3.007E-03      5.502E-01
1988      5.272E+04      2.860E-03      5.234E-01
1989      5.272E+04      2.721E-03      4.979E-01
1990      5.272E+04      2.588E-03      4.736E-01
1991      5.272E+04      2.462E-03      4.505E-01
1992      5.272E+04      2.342E-03      4.285E-01
1993      5.272E+04      2.227E-03      4.076E-01
1994      5.272E+04      2.119E-03      3.877E-01
1995      5.272E+04      2.015E-03      3.688E-01
1996      5.272E+04      1.917E-03      3.508E-01
1997      5.272E+04      1.824E-03      3.337E-01
1998      5.272E+04      1.735E-03      3.175E-01
1999      5.272E+04      1.650E-03      3.020E-01
2000      5.272E+04      1.570E-03      2.872E-01
2001      5.272E+04      1.493E-03      2.732E-01
2002      5.272E+04      1.420E-03      2.599E-01
2003      5.272E+04      1.351E-03      2.472E-01
2004      5.272E+04      1.285E-03      2.352E-01
2005      5.272E+04      1.222E-03      2.237E-01
2006      5.272E+04      1.163E-03      2.128E-01
2007      5.272E+04      1.106E-03      2.024E-01
2008      5.272E+04      1.052E-03      1.925E-01
2009      5.272E+04      1.001E-03      1.832E-01
2010      5.272E+04      9.520E-04      1.742E-01
2011      5.272E+04      9.056E-04      1.657E-01
2012      5.272E+04      8.614E-04      1.576E-01
2013      5.272E+04      8.194E-04      1.500E-01
2014      5.272E+04      7.795E-04      1.426E-01
2015      5.272E+04      7.414E-04      1.357E-01
2016      5.272E+04      7.053E-04      1.291E-01
2017      5.272E+04      6.709E-04      1.228E-01
2018      5.272E+04      6.382E-04      1.168E-01
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continued

Table D-44. Emission Rate of Trichloroethene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 5.272E+04            | 6.070E-04 | 1.111E-01    |
| 2020 | 5.272E+04            | 5.774E-04 | 1.057E-01    |
| 2021 | 5.272E+04            | 5.493E-04 | 1.005E-01    |
| 2022 | 5.272E+04            | 5.225E-04 | 9.561E-02    |
| 2023 | 5.272E+04            | 4.970E-04 | 9.095E-02    |
| 2024 | 5.272E+04            | 4.728E-04 | 8.652E-02    |
| 2025 | 5.272E+04            | 4.497E-04 | 8.230E-02    |
| 2026 | 5.272E+04            | 4.278E-04 | 7.828E-02    |
| 2027 | 5.272E+04            | 4.069E-04 | 7.446E-02    |
| 2028 | 5.272E+04            | 3.871E-04 | 7.083E-02    |
| 2029 | 5.272E+04            | 3.682E-04 | 6.738E-02    |
| 2030 | 5.272E+04            | 3.502E-04 | 6.409E-02    |
| 2031 | 5.272E+04            | 3.332E-04 | 6.097E-02    |
| 2032 | 5.272E+04            | 3.169E-04 | 5.799E-02    |
| 2033 | 5.272E+04            | 3.014E-04 | 5.516E-02    |
| 2034 | 5.272E+04            | 2.867E-04 | 5.247E-02    |
| 2035 | 5.272E+04            | 2.728E-04 | 4.992E-02    |
| 2036 | 5.272E+04            | 2.595E-04 | 4.748E-02    |
| 2037 | 5.272E+04            | 2.468E-04 | 4.517E-02    |
| 2038 | 5.272E+04            | 2.348E-04 | 4.296E-02    |
| 2039 | 5.272E+04            | 2.233E-04 | 4.087E-02    |
| 2040 | 5.272E+04            | 2.124E-04 | 3.887E-02    |
| 2041 | 5.272E+04            | 2.021E-04 | 3.698E-02    |
| 2042 | 5.272E+04            | 1.922E-04 | 3.517E-02    |
| 2043 | 5.272E+04            | 1.828E-04 | 3.346E-02    |
| 2044 | 5.272E+04            | 1.739E-04 | 3.183E-02    |
| 2045 | 5.272E+04            | 1.654E-04 | 3.028E-02    |
| 2046 | 5.272E+04            | 1.574E-04 | 2.880E-02    |
| 2047 | 5.272E+04            | 1.497E-04 | 2.739E-02    |
| 2048 | 5.272E+04            | 1.424E-04 | 2.606E-02    |
| 2049 | 5.272E+04            | 1.354E-04 | 2.479E-02    |
| 2050 | 5.272E+04            | 1.288E-04 | 2.358E-02    |
| 2051 | 5.272E+04            | 1.226E-04 | 2.243E-02    |
| 2052 | 5.272E+04            | 1.166E-04 | 2.133E-02    |
| 2053 | 5.272E+04            | 1.109E-04 | 2.029E-02    |
| 2054 | 5.272E+04            | 1.055E-04 | 1.930E-02    |
| 2055 | 5.272E+04            | 1.003E-04 | 1.836E-02    |
| 2056 | 5.272E+04            | 9.545E-05 | 1.747E-02    |
| 2057 | 5.272E+04            | 9.079E-05 | 1.662E-02    |
| 2058 | 5.272E+04            | 8.637E-05 | 1.581E-02    |
| 2059 | 5.272E+04            | 8.215E-05 | 1.503E-02    |
| 2060 | 5.272E+04            | 7.815E-05 | 1.430E-02    |
| 2061 | 5.272E+04            | 7.434E-05 | 1.360E-02    |
| 2062 | 5.272E+04            | 7.071E-05 | 1.294E-02    |
| 2063 | 5.272E+04            | 6.726E-05 | 1.231E-02    |
| 2064 | 5.272E+04            | 6.398E-05 | 1.171E-02    |
| 2065 | 5.272E+04            | 6.086E-05 | 1.114E-02    |
| 2066 | 5.272E+04            | 5.789E-05 | 1.059E-02    |
| 2067 | 5.272E+04            | 5.507E-05 | 1.008E-02    |
| 2068 | 5.272E+04            | 5.238E-05 | 9.586E-03    |
| 2069 | 5.272E+04            | 4.983E-05 | 9.119E-03    |
| 2070 | 5.272E+04            | 4.740E-05 | 8.674E-03    |
| 2071 | 5.272E+04            | 4.509E-05 | 8.251E-03    |
| 2072 | 5.272E+04            | 4.289E-05 | 7.849E-03    |
| 2073 | 5.272E+04            | 4.080E-05 | 7.466E-03    |
| 2074 | 5.272E+04            | 3.881E-05 | 7.102E-03    |
| 2075 | 5.272E+04            | 3.691E-05 | 6.755E-03    |
| 2076 | 5.272E+04            | 3.511E-05 | 6.426E-03    |
| 2077 | 5.272E+04            | 3.340E-05 | 6.112E-03    |
| 2078 | 5.272E+04            | 3.177E-05 | 5.814E-03    |
| 2079 | 5.272E+04            | 3.022E-05 | 5.531E-03    |
| 2080 | 5.272E+04            | 2.875E-05 | 5.261E-03    |
| 2081 | 5.272E+04            | 2.735E-05 | 5.004E-03    |
| 2082 | 5.272E+04            | 2.601E-05 | 4.760E-03    |
| 2083 | 5.272E+04            | 2.474E-05 | 4.528E-03    |
| 2084 | 5.272E+04            | 2.354E-05 | 4.307E-03    |
| 2085 | 5.272E+04            | 2.239E-05 | 4.097E-03    |
| 2086 | 5.272E+04            | 2.130E-05 | 3.897E-03    |
| 2087 | 5.272E+04            | 2.026E-05 | 3.707E-03    |
| 2088 | 5.272E+04            | 1.927E-05 | 3.527E-03    |

continued



Table D-44. Emission Rate of Trichloroethene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 5.272E+04            | 1.833E-05 | 3.355E-03    |
| 2090 | 5.272E+04            | 1.744E-05 | 3.191E-03    |
| 2091 | 5.272E+04            | 1.659E-05 | 3.035E-03    |
| 2092 | 5.272E+04            | 1.578E-05 | 2.887E-03    |
| 2093 | 5.272E+04            | 1.501E-05 | 2.746E-03    |
| 2094 | 5.272E+04            | 1.428E-05 | 2.613E-03    |
| 2095 | 5.272E+04            | 1.358E-05 | 2.485E-03    |
| 2096 | 5.272E+04            | 1.292E-05 | 2.364E-03    |
| 2097 | 5.272E+04            | 1.229E-05 | 2.249E-03    |
| 2098 | 5.272E+04            | 1.169E-05 | 2.139E-03    |
| 2099 | 5.272E+04            | 1.112E-05 | 2.035E-03    |
| 2100 | 5.272E+04            | 1.058E-05 | 1.935E-03    |
| 2101 | 5.272E+04            | 1.006E-05 | 1.841E-03    |
| 2102 | 5.272E+04            | 9.570E-06 | 1.751E-03    |
| 2103 | 5.272E+04            | 9.103E-06 | 1.666E-03    |
| 2104 | 5.272E+04            | 8.659E-06 | 1.585E-03    |
| 2105 | 5.272E+04            | 8.237E-06 | 1.507E-03    |
| 2106 | 5.272E+04            | 7.835E-06 | 1.434E-03    |
| 2107 | 5.272E+04            | 7.453E-06 | 1.364E-03    |
| 2108 | 5.272E+04            | 7.089E-06 | 1.297E-03    |
| 2109 | 5.272E+04            | 6.744E-06 | 1.234E-03    |
| 2110 | 5.272E+04            | 6.415E-06 | 1.174E-03    |
| 2111 | 5.272E+04            | 6.102E-06 | 1.117E-03    |
| 2112 | 5.272E+04            | 5.804E-06 | 1.062E-03    |
| 2113 | 5.272E+04            | 5.521E-06 | 1.010E-03    |
| 2114 | 5.272E+04            | 5.252E-06 | 9.611E-04    |
| 2115 | 5.272E+04            | 4.996E-06 | 9.142E-04    |
| 2116 | 5.272E+04            | 4.752E-06 | 8.696E-04    |
| 2117 | 5.272E+04            | 4.520E-06 | 8.272E-04    |
| 2118 | 5.272E+04            | 4.300E-06 | 7.869E-04    |
| 2119 | 5.272E+04            | 4.090E-06 | 7.485E-04    |
| 2120 | 5.272E+04            | 3.891E-06 | 7.120E-04    |
| 2121 | 5.272E+04            | 3.701E-06 | 6.773E-04    |
| 2122 | 5.272E+04            | 3.520E-06 | 6.442E-04    |
| 2123 | 5.272E+04            | 3.349E-06 | 6.128E-04    |
| 2124 | 5.272E+04            | 3.185E-06 | 5.829E-04    |
| 2125 | 5.272E+04            | 3.030E-06 | 5.545E-04    |
| 2126 | 5.272E+04            | 2.882E-06 | 5.275E-04    |
| 2127 | 5.272E+04            | 2.742E-06 | 5.017E-04    |
| 2128 | 5.272E+04            | 2.608E-06 | 4.773E-04    |
| 2129 | 5.272E+04            | 2.481E-06 | 4.540E-04    |
| 2130 | 5.272E+04            | 2.360E-06 | 4.319E-04    |
| 2131 | 5.272E+04            | 2.245E-06 | 4.108E-04    |
| 2132 | 5.272E+04            | 2.135E-06 | 3.908E-04    |
| 2133 | 5.272E+04            | 2.031E-06 | 3.717E-04    |
| 2134 | 5.272E+04            | 1.932E-06 | 3.536E-04    |
| 2135 | 5.272E+04            | 1.838E-06 | 3.363E-04    |
| 2136 | 5.272E+04            | 1.748E-06 | 3.199E-04    |
| 2137 | 5.272E+04            | 1.663E-06 | 3.043E-04    |
| 2138 | 5.272E+04            | 1.582E-06 | 2.895E-04    |
| 2139 | 5.272E+04            | 1.505E-06 | 2.754E-04    |
| 2140 | 5.272E+04            | 1.431E-06 | 2.619E-04    |
| 2141 | 5.272E+04            | 1.362E-06 | 2.492E-04    |
| 2142 | 5.272E+04            | 1.295E-06 | 2.370E-04    |
| 2143 | 5.272E+04            | 1.232E-06 | 2.254E-04    |
| 2144 | 5.272E+04            | 1.172E-06 | 2.145E-04    |
| 2145 | 5.272E+04            | 1.115E-06 | 2.040E-04    |
| 2146 | 5.272E+04            | 1.060E-06 | 1.940E-04    |
| 2147 | 5.272E+04            | 1.009E-06 | 1.846E-04    |
| 2148 | 5.272E+04            | 9.594E-07 | 1.756E-04    |
| 2149 | 5.272E+04            | 9.126E-07 | 1.670E-04    |
| 2150 | 5.272E+04            | 8.681E-07 | 1.589E-04    |
| 2151 | 5.272E+04            | 8.258E-07 | 1.511E-04    |
| 2152 | 5.272E+04            | 7.855E-07 | 1.438E-04    |
| 2153 | 5.272E+04            | 7.472E-07 | 1.367E-04    |
| 2154 | 5.272E+04            | 7.108E-07 | 1.301E-04    |
| 2155 | 5.272E+04            | 6.761E-07 | 1.237E-04    |
| 2156 | 5.272E+04            | 6.431E-07 | 1.177E-04    |
| 2157 | 5.272E+04            | 6.118E-07 | 1.120E-04    |
| 2158 | 5.272E+04            | 5.819E-07 | 1.065E-04    |

continued

Table D-44. Emission Rate of Trichloroethene from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 5.272E+04            | 5.535E-07 | 1.013E-04    |
| 2160 | 5.272E+04            | 5.266E-07 | 9.636E-05    |
| 2161 | 5.272E+04            | 5.009E-07 | 9.166E-05    |
| 2162 | 5.272E+04            | 4.764E-07 | 8.719E-05    |
| 2163 | 5.272E+04            | 4.532E-07 | 8.294E-05    |
| 2164 | 5.272E+04            | 4.311E-07 | 7.889E-05    |
| 2165 | 5.272E+04            | 4.101E-07 | 7.504E-05    |
| 2166 | 5.272E+04            | 3.901E-07 | 7.138E-05    |
| 2167 | 5.272E+04            | 3.711E-07 | 6.790E-05    |
| 2168 | 5.272E+04            | 3.530E-07 | 6.459E-05    |
| 2169 | 5.272E+04            | 3.357E-07 | 6.144E-05    |
| 2170 | 5.272E+04            | 3.194E-07 | 5.844E-05    |
| 2171 | 5.272E+04            | 3.038E-07 | 5.559E-05    |
| 2172 | 5.272E+04            | 2.890E-07 | 5.288E-05    |
| 2173 | 5.272E+04            | 2.749E-07 | 5.030E-05    |
| 2174 | 5.272E+04            | 2.615E-07 | 4.785E-05    |
| 2175 | 5.272E+04            | 2.487E-07 | 4.552E-05    |
| 2176 | 5.272E+04            | 2.366E-07 | 4.330E-05    |
| 2177 | 5.272E+04            | 2.251E-07 | 4.119E-05    |
| 2178 | 5.272E+04            | 2.141E-07 | 3.918E-05    |
| 2179 | 5.272E+04            | 2.036E-07 | 3.727E-05    |
| 2180 | 5.272E+04            | 1.937E-07 | 3.545E-05    |
| 2181 | 5.272E+04            | 1.843E-07 | 3.372E-05    |
| 2182 | 5.272E+04            | 1.753E-07 | 3.208E-05    |
| 2183 | 5.272E+04            | 1.667E-07 | 3.051E-05    |
| 2184 | 5.272E+04            | 1.586E-07 | 2.902E-05    |
| 2185 | 5.272E+04            | 1.509E-07 | 2.761E-05    |
| 2186 | 5.272E+04            | 1.435E-07 | 2.626E-05    |
| 2187 | 5.272E+04            | 1.365E-07 | 2.498E-05    |
| 2188 | 5.272E+04            | 1.298E-07 | 2.376E-05    |
| 2189 | 5.272E+04            | 1.235E-07 | 2.260E-05    |
| 2190 | 5.272E+04            | 1.175E-07 | 2.150E-05    |
| 2191 | 5.272E+04            | 1.118E-07 | 2.045E-05    |
| 2192 | 5.272E+04            | 1.063E-07 | 1.945E-05    |
| 2193 | 5.272E+04            | 1.011E-07 | 1.851E-05    |
| 2194 | 5.272E+04            | 9.619E-08 | 1.760E-05    |
| 2195 | 5.272E+04            | 9.150E-08 | 1.674E-05    |
| 2196 | 5.272E+04            | 8.704E-08 | 1.593E-05    |
| 2197 | 5.272E+04            | 8.279E-08 | 1.515E-05    |
| 2198 | 5.272E+04            | 7.876E-08 | 1.441E-05    |
| 2199 | 5.272E+04            | 7.491E-08 | 1.371E-05    |
| 2200 | 5.272E+04            | 7.126E-08 | 1.304E-05    |
| 2201 | 5.272E+04            | 6.779E-08 | 1.240E-05    |
| 2202 | 5.272E+04            | 6.448E-08 | 1.180E-05    |
| 2203 | 5.272E+04            | 6.133E-08 | 1.122E-05    |

Table D-45. Emission Rate of Vinyl Chloride from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA3.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
Air Pollutant : Vinyl Chloride (HAP/VOC)
Molecular Wt = 62.50      Concentration = 0.810000 ppmV
=====
                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
Current Year to Closure Year : 0.00 Mg/year
=====
                          Model Results
=====
Year      Refuse In Place (Mg)      Vinyl Chloride (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      1.438E-04      5.533E-02
1976      1.054E+04      2.806E-04      1.080E-01
1977      1.582E+04      4.108E-04      1.580E-01
1978      2.109E+04      5.346E-04      2.056E-01
1979      2.636E+04      6.524E-04      2.509E-01
1980      3.163E+04      7.644E-04      2.940E-01
1981      3.690E+04      8.709E-04      3.350E-01
1982      4.217E+04      9.723E-04      3.740E-01
1983      4.745E+04      1.069E-03      4.111E-01
1984      5.272E+04      1.160E-03      4.464E-01
1985      5.272E+04      1.104E-03      4.246E-01
1986      5.272E+04      1.050E-03      4.039E-01
1987      5.272E+04      9.988E-04      3.842E-01
1988      5.272E+04      9.501E-04      3.655E-01
1989      5.272E+04      9.037E-04      3.476E-01
1990      5.272E+04      8.596E-04      3.307E-01
1991      5.272E+04      8.177E-04      3.146E-01
1992      5.272E+04      7.778E-04      2.992E-01
1993      5.272E+04      7.399E-04      2.846E-01
1994      5.272E+04      7.038E-04      2.707E-01
1995      5.272E+04      6.695E-04      2.575E-01
1996      5.272E+04      6.368E-04      2.450E-01
1997      5.272E+04      6.058E-04      2.330E-01
1998      5.272E+04      5.762E-04      2.217E-01
1999      5.272E+04      5.481E-04      2.109E-01
2000      5.272E+04      5.214E-04      2.006E-01
2001      5.272E+04      4.960E-04      1.908E-01
2002      5.272E+04      4.718E-04      1.815E-01
2003      5.272E+04      4.488E-04      1.726E-01
2004      5.272E+04      4.269E-04      1.642E-01
2005      5.272E+04      4.061E-04      1.562E-01
2006      5.272E+04      3.863E-04      1.486E-01
2007      5.272E+04      3.674E-04      1.413E-01
2008      5.272E+04      3.495E-04      1.344E-01
2009      5.272E+04      3.325E-04      1.279E-01
2010      5.272E+04      3.162E-04      1.217E-01
2011      5.272E+04      3.008E-04      1.157E-01
2012      5.272E+04      2.862E-04      1.101E-01
2013      5.272E+04      2.722E-04      1.047E-01
2014      5.272E+04      2.589E-04      9.960E-02
2015      5.272E+04      2.463E-04      9.474E-02
2016      5.272E+04      2.343E-04      9.012E-02
2017      5.272E+04      2.229E-04      8.573E-02
2018      5.272E+04      2.120E-04      8.155E-02
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continued

Table D-45. Emission Rate of Vinyl Chloride from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 5.272E+04            | 2.016E-04 | 7.757E-02    |
| 2020 | 5.272E+04            | 1.918E-04 | 7.379E-02    |
| 2021 | 5.272E+04            | 1.825E-04 | 7.019E-02    |
| 2022 | 5.272E+04            | 1.736E-04 | 6.677E-02    |
| 2023 | 5.272E+04            | 1.651E-04 | 6.351E-02    |
| 2024 | 5.272E+04            | 1.570E-04 | 6.041E-02    |
| 2025 | 5.272E+04            | 1.494E-04 | 5.747E-02    |
| 2026 | 5.272E+04            | 1.421E-04 | 5.466E-02    |
| 2027 | 5.272E+04            | 1.352E-04 | 5.200E-02    |
| 2028 | 5.272E+04            | 1.286E-04 | 4.946E-02    |
| 2029 | 5.272E+04            | 1.223E-04 | 4.705E-02    |
| 2030 | 5.272E+04            | 1.163E-04 | 4.475E-02    |
| 2031 | 5.272E+04            | 1.107E-04 | 4.257E-02    |
| 2032 | 5.272E+04            | 1.053E-04 | 4.050E-02    |
| 2033 | 5.272E+04            | 1.001E-04 | 3.852E-02    |
| 2034 | 5.272E+04            | 9.525E-05 | 3.664E-02    |
| 2035 | 5.272E+04            | 9.061E-05 | 3.485E-02    |
| 2036 | 5.272E+04            | 8.619E-05 | 3.315E-02    |
| 2037 | 5.272E+04            | 8.198E-05 | 3.154E-02    |
| 2038 | 5.272E+04            | 7.799E-05 | 3.000E-02    |
| 2039 | 5.272E+04            | 7.418E-05 | 2.854E-02    |
| 2040 | 5.272E+04            | 7.056E-05 | 2.714E-02    |
| 2041 | 5.272E+04            | 6.712E-05 | 2.582E-02    |
| 2042 | 5.272E+04            | 6.385E-05 | 2.456E-02    |
| 2043 | 5.272E+04            | 6.074E-05 | 2.336E-02    |
| 2044 | 5.272E+04            | 5.777E-05 | 2.222E-02    |
| 2045 | 5.272E+04            | 5.496E-05 | 2.114E-02    |
| 2046 | 5.272E+04            | 5.228E-05 | 2.011E-02    |
| 2047 | 5.272E+04            | 4.973E-05 | 1.913E-02    |
| 2048 | 5.272E+04            | 4.730E-05 | 1.820E-02    |
| 2049 | 5.272E+04            | 4.499E-05 | 1.731E-02    |
| 2050 | 5.272E+04            | 4.280E-05 | 1.646E-02    |
| 2051 | 5.272E+04            | 4.071E-05 | 1.566E-02    |
| 2052 | 5.272E+04            | 3.873E-05 | 1.490E-02    |
| 2053 | 5.272E+04            | 3.684E-05 | 1.417E-02    |
| 2054 | 5.272E+04            | 3.504E-05 | 1.348E-02    |
| 2055 | 5.272E+04            | 3.333E-05 | 1.282E-02    |
| 2056 | 5.272E+04            | 3.171E-05 | 1.220E-02    |
| 2057 | 5.272E+04            | 3.016E-05 | 1.160E-02    |
| 2058 | 5.272E+04            | 2.869E-05 | 1.104E-02    |
| 2059 | 5.272E+04            | 2.729E-05 | 1.050E-02    |
| 2060 | 5.272E+04            | 2.596E-05 | 9.986E-03    |
| 2061 | 5.272E+04            | 2.469E-05 | 9.499E-03    |
| 2062 | 5.272E+04            | 2.349E-05 | 9.036E-03    |
| 2063 | 5.272E+04            | 2.234E-05 | 8.595E-03    |
| 2064 | 5.272E+04            | 2.125E-05 | 8.176E-03    |
| 2065 | 5.272E+04            | 2.022E-05 | 7.777E-03    |
| 2066 | 5.272E+04            | 1.923E-05 | 7.398E-03    |
| 2067 | 5.272E+04            | 1.829E-05 | 7.037E-03    |
| 2068 | 5.272E+04            | 1.740E-05 | 6.694E-03    |
| 2069 | 5.272E+04            | 1.655E-05 | 6.367E-03    |
| 2070 | 5.272E+04            | 1.575E-05 | 6.057E-03    |
| 2071 | 5.272E+04            | 1.498E-05 | 5.761E-03    |
| 2072 | 5.272E+04            | 1.425E-05 | 5.480E-03    |
| 2073 | 5.272E+04            | 1.355E-05 | 5.213E-03    |
| 2074 | 5.272E+04            | 1.289E-05 | 4.959E-03    |
| 2075 | 5.272E+04            | 1.226E-05 | 4.717E-03    |
| 2076 | 5.272E+04            | 1.166E-05 | 4.487E-03    |
| 2077 | 5.272E+04            | 1.110E-05 | 4.268E-03    |
| 2078 | 5.272E+04            | 1.055E-05 | 4.060E-03    |
| 2079 | 5.272E+04            | 1.004E-05 | 3.862E-03    |
| 2080 | 5.272E+04            | 9.550E-06 | 3.674E-03    |
| 2081 | 5.272E+04            | 9.084E-06 | 3.494E-03    |
| 2082 | 5.272E+04            | 8.641E-06 | 3.324E-03    |
| 2083 | 5.272E+04            | 8.220E-06 | 3.162E-03    |
| 2084 | 5.272E+04            | 7.819E-06 | 3.008E-03    |
| 2085 | 5.272E+04            | 7.437E-06 | 2.861E-03    |
| 2086 | 5.272E+04            | 7.075E-06 | 2.722E-03    |
| 2087 | 5.272E+04            | 6.730E-06 | 2.589E-03    |
| 2088 | 5.272E+04            | 6.401E-06 | 2.463E-03    |

continued

Table D-45. Emission Rate of Vinyl Chloride from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 5.272E+04            | 6.089E-06 | 2.342E-03    |
| 2090 | 5.272E+04            | 5.792E-06 | 2.228E-03    |
| 2091 | 5.272E+04            | 5.510E-06 | 2.120E-03    |
| 2092 | 5.272E+04            | 5.241E-06 | 2.016E-03    |
| 2093 | 5.272E+04            | 4.985E-06 | 1.918E-03    |
| 2094 | 5.272E+04            | 4.742E-06 | 1.824E-03    |
| 2095 | 5.272E+04            | 4.511E-06 | 1.735E-03    |
| 2096 | 5.272E+04            | 4.291E-06 | 1.651E-03    |
| 2097 | 5.272E+04            | 4.082E-06 | 1.570E-03    |
| 2098 | 5.272E+04            | 3.883E-06 | 1.494E-03    |
| 2099 | 5.272E+04            | 3.693E-06 | 1.421E-03    |
| 2100 | 5.272E+04            | 3.513E-06 | 1.351E-03    |
| 2101 | 5.272E+04            | 3.342E-06 | 1.286E-03    |
| 2102 | 5.272E+04            | 3.179E-06 | 1.223E-03    |
| 2103 | 5.272E+04            | 3.024E-06 | 1.163E-03    |
| 2104 | 5.272E+04            | 2.876E-06 | 1.106E-03    |
| 2105 | 5.272E+04            | 2.736E-06 | 1.053E-03    |
| 2106 | 5.272E+04            | 2.603E-06 | 1.001E-03    |
| 2107 | 5.272E+04            | 2.476E-06 | 9.524E-04    |
| 2108 | 5.272E+04            | 2.355E-06 | 9.059E-04    |
| 2109 | 5.272E+04            | 2.240E-06 | 8.617E-04    |
| 2110 | 5.272E+04            | 2.131E-06 | 8.197E-04    |
| 2111 | 5.272E+04            | 2.027E-06 | 7.797E-04    |
| 2112 | 5.272E+04            | 1.928E-06 | 7.417E-04    |
| 2113 | 5.272E+04            | 1.834E-06 | 7.055E-04    |
| 2114 | 5.272E+04            | 1.745E-06 | 6.711E-04    |
| 2115 | 5.272E+04            | 1.660E-06 | 6.384E-04    |
| 2116 | 5.272E+04            | 1.579E-06 | 6.073E-04    |
| 2117 | 5.272E+04            | 1.502E-06 | 5.776E-04    |
| 2118 | 5.272E+04            | 1.428E-06 | 5.495E-04    |
| 2119 | 5.272E+04            | 1.359E-06 | 5.227E-04    |
| 2120 | 5.272E+04            | 1.292E-06 | 4.972E-04    |
| 2121 | 5.272E+04            | 1.229E-06 | 4.729E-04    |
| 2122 | 5.272E+04            | 1.169E-06 | 4.499E-04    |
| 2123 | 5.272E+04            | 1.112E-06 | 4.279E-04    |
| 2124 | 5.272E+04            | 1.058E-06 | 4.071E-04    |
| 2125 | 5.272E+04            | 1.007E-06 | 3.872E-04    |
| 2126 | 5.272E+04            | 9.575E-07 | 3.683E-04    |
| 2127 | 5.272E+04            | 9.108E-07 | 3.504E-04    |
| 2128 | 5.272E+04            | 8.663E-07 | 3.333E-04    |
| 2129 | 5.272E+04            | 8.241E-07 | 3.170E-04    |
| 2130 | 5.272E+04            | 7.839E-07 | 3.016E-04    |
| 2131 | 5.272E+04            | 7.457E-07 | 2.868E-04    |
| 2132 | 5.272E+04            | 7.093E-07 | 2.729E-04    |
| 2133 | 5.272E+04            | 6.747E-07 | 2.595E-04    |
| 2134 | 5.272E+04            | 6.418E-07 | 2.469E-04    |
| 2135 | 5.272E+04            | 6.105E-07 | 2.348E-04    |
| 2136 | 5.272E+04            | 5.807E-07 | 2.234E-04    |
| 2137 | 5.272E+04            | 5.524E-07 | 2.125E-04    |
| 2138 | 5.272E+04            | 5.255E-07 | 2.021E-04    |
| 2139 | 5.272E+04            | 4.998E-07 | 1.923E-04    |
| 2140 | 5.272E+04            | 4.755E-07 | 1.829E-04    |
| 2141 | 5.272E+04            | 4.523E-07 | 1.740E-04    |
| 2142 | 5.272E+04            | 4.302E-07 | 1.655E-04    |
| 2143 | 5.272E+04            | 4.092E-07 | 1.574E-04    |
| 2144 | 5.272E+04            | 3.893E-07 | 1.497E-04    |
| 2145 | 5.272E+04            | 3.703E-07 | 1.424E-04    |
| 2146 | 5.272E+04            | 3.522E-07 | 1.355E-04    |
| 2147 | 5.272E+04            | 3.350E-07 | 1.289E-04    |
| 2148 | 5.272E+04            | 3.187E-07 | 1.226E-04    |
| 2149 | 5.272E+04            | 3.032E-07 | 1.166E-04    |
| 2150 | 5.272E+04            | 2.884E-07 | 1.109E-04    |
| 2151 | 5.272E+04            | 2.743E-07 | 1.055E-04    |
| 2152 | 5.272E+04            | 2.609E-07 | 1.004E-04    |
| 2153 | 5.272E+04            | 2.482E-07 | 9.548E-05    |
| 2154 | 5.272E+04            | 2.361E-07 | 9.083E-05    |
| 2155 | 5.272E+04            | 2.246E-07 | 8.640E-05    |
| 2156 | 5.272E+04            | 2.136E-07 | 8.218E-05    |
| 2157 | 5.272E+04            | 2.032E-07 | 7.817E-05    |
| 2158 | 5.272E+04            | 1.933E-07 | 7.436E-05    |

continued

Table D-45. Emission Rate of Vinyl Chloride from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 5.272E+04            | 1.839E-07 | 7.074E-05    |
| 2160 | 5.272E+04            | 1.749E-07 | 6.729E-05    |
| 2161 | 5.272E+04            | 1.664E-07 | 6.400E-05    |
| 2162 | 5.272E+04            | 1.583E-07 | 6.088E-05    |
| 2163 | 5.272E+04            | 1.505E-07 | 5.791E-05    |
| 2164 | 5.272E+04            | 1.432E-07 | 5.509E-05    |
| 2165 | 5.272E+04            | 1.362E-07 | 5.240E-05    |
| 2166 | 5.272E+04            | 1.296E-07 | 4.985E-05    |
| 2167 | 5.272E+04            | 1.233E-07 | 4.742E-05    |
| 2168 | 5.272E+04            | 1.172E-07 | 4.510E-05    |
| 2169 | 5.272E+04            | 1.115E-07 | 4.290E-05    |
| 2170 | 5.272E+04            | 1.061E-07 | 4.081E-05    |
| 2171 | 5.272E+04            | 1.009E-07 | 3.882E-05    |
| 2172 | 5.272E+04            | 9.599E-08 | 3.693E-05    |
| 2173 | 5.272E+04            | 9.131E-08 | 3.513E-05    |
| 2174 | 5.272E+04            | 8.686E-08 | 3.341E-05    |
| 2175 | 5.272E+04            | 8.262E-08 | 3.178E-05    |
| 2176 | 5.272E+04            | 7.859E-08 | 3.023E-05    |
| 2177 | 5.272E+04            | 7.476E-08 | 2.876E-05    |
| 2178 | 5.272E+04            | 7.111E-08 | 2.736E-05    |
| 2179 | 5.272E+04            | 6.765E-08 | 2.602E-05    |
| 2180 | 5.272E+04            | 6.435E-08 | 2.475E-05    |
| 2181 | 5.272E+04            | 6.121E-08 | 2.355E-05    |
| 2182 | 5.272E+04            | 5.822E-08 | 2.240E-05    |
| 2183 | 5.272E+04            | 5.538E-08 | 2.130E-05    |
| 2184 | 5.272E+04            | 5.268E-08 | 2.027E-05    |
| 2185 | 5.272E+04            | 5.011E-08 | 1.928E-05    |
| 2186 | 5.272E+04            | 4.767E-08 | 1.834E-05    |
| 2187 | 5.272E+04            | 4.534E-08 | 1.744E-05    |
| 2188 | 5.272E+04            | 4.313E-08 | 1.659E-05    |
| 2189 | 5.272E+04            | 4.103E-08 | 1.578E-05    |
| 2190 | 5.272E+04            | 3.903E-08 | 1.501E-05    |
| 2191 | 5.272E+04            | 3.712E-08 | 1.428E-05    |
| 2192 | 5.272E+04            | 3.531E-08 | 1.358E-05    |
| 2193 | 5.272E+04            | 3.359E-08 | 1.292E-05    |
| 2194 | 5.272E+04            | 3.195E-08 | 1.229E-05    |
| 2195 | 5.272E+04            | 3.040E-08 | 1.169E-05    |
| 2196 | 5.272E+04            | 2.891E-08 | 1.112E-05    |
| 2197 | 5.272E+04            | 2.750E-08 | 1.058E-05    |
| 2198 | 5.272E+04            | 2.616E-08 | 1.006E-05    |
| 2199 | 5.272E+04            | 2.489E-08 | 9.573E-06    |
| 2200 | 5.272E+04            | 2.367E-08 | 9.106E-06    |
| 2201 | 5.272E+04            | 2.252E-08 | 8.662E-06    |
| 2202 | 5.272E+04            | 2.142E-08 | 8.240E-06    |
| 2203 | 5.272E+04            | 2.037E-08 | 7.838E-06    |

Table D-46. Emission Rate of m,p-Xylene from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA3.PRM

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=====
Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
Air Pollutant : mpXylene (HAP/VOC)
Molecular Wt = 106.17      Concentration = 7.090000 ppmV
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
Model Results
=====
Year      Refuse In Place (Mg)      mpXylene (HAP/VOC) Emission Rate
      (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      2.139E-03      4.843E-01
1976      1.054E+04      4.173E-03      9.450E-01
1977      1.582E+04      6.108E-03      1.383E+00
1978      2.109E+04      7.949E-03      1.800E+00
1979      2.636E+04      9.700E-03      2.197E+00
1980      3.163E+04      1.137E-02      2.574E+00
1981      3.690E+04      1.295E-02      2.933E+00
1982      4.217E+04      1.446E-02      3.274E+00
1983      4.745E+04      1.589E-02      3.598E+00
1984      5.272E+04      1.725E-02      3.907E+00
1985      5.272E+04      1.641E-02      3.717E+00
1986      5.272E+04      1.561E-02      3.535E+00
1987      5.272E+04      1.485E-02      3.363E+00
1988      5.272E+04      1.413E-02      3.199E+00
1989      5.272E+04      1.344E-02      3.043E+00
1990      5.272E+04      1.278E-02      2.895E+00
1991      5.272E+04      1.216E-02      2.753E+00
1992      5.272E+04      1.157E-02      2.619E+00
1993      5.272E+04      1.100E-02      2.491E+00
1994      5.272E+04      1.047E-02      2.370E+00
1995      5.272E+04      9.955E-03      2.254E+00
1996      5.272E+04      9.469E-03      2.144E+00
1997      5.272E+04      9.007E-03      2.040E+00
1998      5.272E+04      8.568E-03      1.940E+00
1999      5.272E+04      8.150E-03      1.846E+00
2000      5.272E+04      7.753E-03      1.756E+00
2001      5.272E+04      7.375E-03      1.670E+00
2002      5.272E+04      7.015E-03      1.589E+00
2003      5.272E+04      6.673E-03      1.511E+00
2004      5.272E+04      6.347E-03      1.437E+00
2005      5.272E+04      6.038E-03      1.367E+00
2006      5.272E+04      5.743E-03      1.301E+00
2007      5.272E+04      5.463E-03      1.237E+00
2008      5.272E+04      5.197E-03      1.177E+00
2009      5.272E+04      4.943E-03      1.119E+00
2010      5.272E+04      4.702E-03      1.065E+00
2011      5.272E+04      4.473E-03      1.013E+00
2012      5.272E+04      4.255E-03      9.635E-01
2013      5.272E+04      4.047E-03      9.165E-01
2014      5.272E+04      3.850E-03      8.718E-01
2015      5.272E+04      3.662E-03      8.293E-01
2016      5.272E+04      3.484E-03      7.889E-01
2017      5.272E+04      3.314E-03      7.504E-01
2018      5.272E+04      3.152E-03      7.138E-01
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continued

Table D-46. Emission Rate of m,p-Xylene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 5.272E+04            | 2.998E-03 | 6.790E-01    |
| 2020 | 5.272E+04            | 2.852E-03 | 6.459E-01    |
| 2021 | 5.272E+04            | 2.713E-03 | 6.144E-01    |
| 2022 | 5.272E+04            | 2.581E-03 | 5.844E-01    |
| 2023 | 5.272E+04            | 2.455E-03 | 5.559E-01    |
| 2024 | 5.272E+04            | 2.335E-03 | 5.288E-01    |
| 2025 | 5.272E+04            | 2.221E-03 | 5.030E-01    |
| 2026 | 5.272E+04            | 2.113E-03 | 4.785E-01    |
| 2027 | 5.272E+04            | 2.010E-03 | 4.551E-01    |
| 2028 | 5.272E+04            | 1.912E-03 | 4.329E-01    |
| 2029 | 5.272E+04            | 1.819E-03 | 4.118E-01    |
| 2030 | 5.272E+04            | 1.730E-03 | 3.917E-01    |
| 2031 | 5.272E+04            | 1.646E-03 | 3.726E-01    |
| 2032 | 5.272E+04            | 1.565E-03 | 3.545E-01    |
| 2033 | 5.272E+04            | 1.489E-03 | 3.372E-01    |
| 2034 | 5.272E+04            | 1.416E-03 | 3.207E-01    |
| 2035 | 5.272E+04            | 1.347E-03 | 3.051E-01    |
| 2036 | 5.272E+04            | 1.282E-03 | 2.902E-01    |
| 2037 | 5.272E+04            | 1.219E-03 | 2.761E-01    |
| 2038 | 5.272E+04            | 1.160E-03 | 2.626E-01    |
| 2039 | 5.272E+04            | 1.103E-03 | 2.498E-01    |
| 2040 | 5.272E+04            | 1.049E-03 | 2.376E-01    |
| 2041 | 5.272E+04            | 9.981E-04 | 2.260E-01    |
| 2042 | 5.272E+04            | 9.494E-04 | 2.150E-01    |
| 2043 | 5.272E+04            | 9.031E-04 | 2.045E-01    |
| 2044 | 5.272E+04            | 8.590E-04 | 1.945E-01    |
| 2045 | 5.272E+04            | 8.171E-04 | 1.850E-01    |
| 2046 | 5.272E+04            | 7.773E-04 | 1.760E-01    |
| 2047 | 5.272E+04            | 7.394E-04 | 1.674E-01    |
| 2048 | 5.272E+04            | 7.033E-04 | 1.593E-01    |
| 2049 | 5.272E+04            | 6.690E-04 | 1.515E-01    |
| 2050 | 5.272E+04            | 6.364E-04 | 1.441E-01    |
| 2051 | 5.272E+04            | 6.053E-04 | 1.371E-01    |
| 2052 | 5.272E+04            | 5.758E-04 | 1.304E-01    |
| 2053 | 5.272E+04            | 5.477E-04 | 1.240E-01    |
| 2054 | 5.272E+04            | 5.210E-04 | 1.180E-01    |
| 2055 | 5.272E+04            | 4.956E-04 | 1.122E-01    |
| 2056 | 5.272E+04            | 4.714E-04 | 1.068E-01    |
| 2057 | 5.272E+04            | 4.485E-04 | 1.016E-01    |
| 2058 | 5.272E+04            | 4.266E-04 | 9.660E-02    |
| 2059 | 5.272E+04            | 4.058E-04 | 9.189E-02    |
| 2060 | 5.272E+04            | 3.860E-04 | 8.741E-02    |
| 2061 | 5.272E+04            | 3.672E-04 | 8.315E-02    |
| 2062 | 5.272E+04            | 3.493E-04 | 7.909E-02    |
| 2063 | 5.272E+04            | 3.322E-04 | 7.523E-02    |
| 2064 | 5.272E+04            | 3.160E-04 | 7.156E-02    |
| 2065 | 5.272E+04            | 3.006E-04 | 6.807E-02    |
| 2066 | 5.272E+04            | 2.859E-04 | 6.475E-02    |
| 2067 | 5.272E+04            | 2.720E-04 | 6.160E-02    |
| 2068 | 5.272E+04            | 2.587E-04 | 5.859E-02    |
| 2069 | 5.272E+04            | 2.461E-04 | 5.573E-02    |
| 2070 | 5.272E+04            | 2.341E-04 | 5.302E-02    |
| 2071 | 5.272E+04            | 2.227E-04 | 5.043E-02    |
| 2072 | 5.272E+04            | 2.118E-04 | 4.797E-02    |
| 2073 | 5.272E+04            | 2.015E-04 | 4.563E-02    |
| 2074 | 5.272E+04            | 1.917E-04 | 4.341E-02    |
| 2075 | 5.272E+04            | 1.823E-04 | 4.129E-02    |
| 2076 | 5.272E+04            | 1.734E-04 | 3.928E-02    |
| 2077 | 5.272E+04            | 1.650E-04 | 3.736E-02    |
| 2078 | 5.272E+04            | 1.569E-04 | 3.554E-02    |
| 2079 | 5.272E+04            | 1.493E-04 | 3.380E-02    |
| 2080 | 5.272E+04            | 1.420E-04 | 3.216E-02    |
| 2081 | 5.272E+04            | 1.351E-04 | 3.059E-02    |
| 2082 | 5.272E+04            | 1.285E-04 | 2.910E-02    |
| 2083 | 5.272E+04            | 1.222E-04 | 2.768E-02    |
| 2084 | 5.272E+04            | 1.163E-04 | 2.633E-02    |
| 2085 | 5.272E+04            | 1.106E-04 | 2.504E-02    |
| 2086 | 5.272E+04            | 1.052E-04 | 2.382E-02    |
| 2087 | 5.272E+04            | 1.001E-04 | 2.266E-02    |
| 2088 | 5.272E+04            | 9.518E-05 | 2.155E-02    |

continued



Table D-46. Emission Rate of m,p-Xylene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 5.272E+04            | 9.054E-05 | 2.050E-02    |
| 2090 | 5.272E+04            | 8.613E-05 | 1.950E-02    |
| 2091 | 5.272E+04            | 8.193E-05 | 1.855E-02    |
| 2092 | 5.272E+04            | 7.793E-05 | 1.765E-02    |
| 2093 | 5.272E+04            | 7.413E-05 | 1.679E-02    |
| 2094 | 5.272E+04            | 7.051E-05 | 1.597E-02    |
| 2095 | 5.272E+04            | 6.707E-05 | 1.519E-02    |
| 2096 | 5.272E+04            | 6.380E-05 | 1.445E-02    |
| 2097 | 5.272E+04            | 6.069E-05 | 1.374E-02    |
| 2098 | 5.272E+04            | 5.773E-05 | 1.307E-02    |
| 2099 | 5.272E+04            | 5.492E-05 | 1.244E-02    |
| 2100 | 5.272E+04            | 5.224E-05 | 1.183E-02    |
| 2101 | 5.272E+04            | 4.969E-05 | 1.125E-02    |
| 2102 | 5.272E+04            | 4.727E-05 | 1.070E-02    |
| 2103 | 5.272E+04            | 4.496E-05 | 1.018E-02    |
| 2104 | 5.272E+04            | 4.277E-05 | 9.685E-03    |
| 2105 | 5.272E+04            | 4.068E-05 | 9.213E-03    |
| 2106 | 5.272E+04            | 3.870E-05 | 8.763E-03    |
| 2107 | 5.272E+04            | 3.681E-05 | 8.336E-03    |
| 2108 | 5.272E+04            | 3.502E-05 | 7.930E-03    |
| 2109 | 5.272E+04            | 3.331E-05 | 7.543E-03    |
| 2110 | 5.272E+04            | 3.168E-05 | 7.175E-03    |
| 2111 | 5.272E+04            | 3.014E-05 | 6.825E-03    |
| 2112 | 5.272E+04            | 2.867E-05 | 6.492E-03    |
| 2113 | 5.272E+04            | 2.727E-05 | 6.176E-03    |
| 2114 | 5.272E+04            | 2.594E-05 | 5.874E-03    |
| 2115 | 5.272E+04            | 2.468E-05 | 5.588E-03    |
| 2116 | 5.272E+04            | 2.347E-05 | 5.315E-03    |
| 2117 | 5.272E+04            | 2.233E-05 | 5.056E-03    |
| 2118 | 5.272E+04            | 2.124E-05 | 4.809E-03    |
| 2119 | 5.272E+04            | 2.020E-05 | 4.575E-03    |
| 2120 | 5.272E+04            | 1.922E-05 | 4.352E-03    |
| 2121 | 5.272E+04            | 1.828E-05 | 4.140E-03    |
| 2122 | 5.272E+04            | 1.739E-05 | 3.938E-03    |
| 2123 | 5.272E+04            | 1.654E-05 | 3.746E-03    |
| 2124 | 5.272E+04            | 1.573E-05 | 3.563E-03    |
| 2125 | 5.272E+04            | 1.497E-05 | 3.389E-03    |
| 2126 | 5.272E+04            | 1.424E-05 | 3.224E-03    |
| 2127 | 5.272E+04            | 1.354E-05 | 3.067E-03    |
| 2128 | 5.272E+04            | 1.288E-05 | 2.917E-03    |
| 2129 | 5.272E+04            | 1.225E-05 | 2.775E-03    |
| 2130 | 5.272E+04            | 1.166E-05 | 2.640E-03    |
| 2131 | 5.272E+04            | 1.109E-05 | 2.511E-03    |
| 2132 | 5.272E+04            | 1.055E-05 | 2.388E-03    |
| 2133 | 5.272E+04            | 1.003E-05 | 2.272E-03    |
| 2134 | 5.272E+04            | 9.543E-06 | 2.161E-03    |
| 2135 | 5.272E+04            | 9.078E-06 | 2.056E-03    |
| 2136 | 5.272E+04            | 8.635E-06 | 1.955E-03    |
| 2137 | 5.272E+04            | 8.214E-06 | 1.860E-03    |
| 2138 | 5.272E+04            | 7.813E-06 | 1.769E-03    |
| 2139 | 5.272E+04            | 7.432E-06 | 1.683E-03    |
| 2140 | 5.272E+04            | 7.070E-06 | 1.601E-03    |
| 2141 | 5.272E+04            | 6.725E-06 | 1.523E-03    |
| 2142 | 5.272E+04            | 6.397E-06 | 1.449E-03    |
| 2143 | 5.272E+04            | 6.085E-06 | 1.378E-03    |
| 2144 | 5.272E+04            | 5.788E-06 | 1.311E-03    |
| 2145 | 5.272E+04            | 5.506E-06 | 1.247E-03    |
| 2146 | 5.272E+04            | 5.237E-06 | 1.186E-03    |
| 2147 | 5.272E+04            | 4.982E-06 | 1.128E-03    |
| 2148 | 5.272E+04            | 4.739E-06 | 1.073E-03    |
| 2149 | 5.272E+04            | 4.508E-06 | 1.021E-03    |
| 2150 | 5.272E+04            | 4.288E-06 | 9.710E-04    |
| 2151 | 5.272E+04            | 4.079E-06 | 9.237E-04    |
| 2152 | 5.272E+04            | 3.880E-06 | 8.786E-04    |
| 2153 | 5.272E+04            | 3.691E-06 | 8.358E-04    |
| 2154 | 5.272E+04            | 3.511E-06 | 7.950E-04    |
| 2155 | 5.272E+04            | 3.339E-06 | 7.562E-04    |
| 2156 | 5.272E+04            | 3.177E-06 | 7.193E-04    |
| 2157 | 5.272E+04            | 3.022E-06 | 6.843E-04    |
| 2158 | 5.272E+04            | 2.874E-06 | 6.509E-04    |

continued

Table D-46. Emission Rate of m,p-Xylene from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 5.272E+04            | 2.734E-06 | 6.192E-04    |
| 2160 | 5.272E+04            | 2.601E-06 | 5.890E-04    |
| 2161 | 5.272E+04            | 2.474E-06 | 5.602E-04    |
| 2162 | 5.272E+04            | 2.353E-06 | 5.329E-04    |
| 2163 | 5.272E+04            | 2.238E-06 | 5.069E-04    |
| 2164 | 5.272E+04            | 2.129E-06 | 4.822E-04    |
| 2165 | 5.272E+04            | 2.025E-06 | 4.587E-04    |
| 2166 | 5.272E+04            | 1.927E-06 | 4.363E-04    |
| 2167 | 5.272E+04            | 1.833E-06 | 4.150E-04    |
| 2168 | 5.272E+04            | 1.743E-06 | 3.948E-04    |
| 2169 | 5.272E+04            | 1.658E-06 | 3.755E-04    |
| 2170 | 5.272E+04            | 1.577E-06 | 3.572E-04    |
| 2171 | 5.272E+04            | 1.501E-06 | 3.398E-04    |
| 2172 | 5.272E+04            | 1.427E-06 | 3.232E-04    |
| 2173 | 5.272E+04            | 1.358E-06 | 3.075E-04    |
| 2174 | 5.272E+04            | 1.292E-06 | 2.925E-04    |
| 2175 | 5.272E+04            | 1.229E-06 | 2.782E-04    |
| 2176 | 5.272E+04            | 1.169E-06 | 2.646E-04    |
| 2177 | 5.272E+04            | 1.112E-06 | 2.517E-04    |
| 2178 | 5.272E+04            | 1.057E-06 | 2.395E-04    |
| 2179 | 5.272E+04            | 1.006E-06 | 2.278E-04    |
| 2180 | 5.272E+04            | 9.568E-07 | 2.167E-04    |
| 2181 | 5.272E+04            | 9.101E-07 | 2.061E-04    |
| 2182 | 5.272E+04            | 8.657E-07 | 1.960E-04    |
| 2183 | 5.272E+04            | 8.235E-07 | 1.865E-04    |
| 2184 | 5.272E+04            | 7.833E-07 | 1.774E-04    |
| 2185 | 5.272E+04            | 7.451E-07 | 1.687E-04    |
| 2186 | 5.272E+04            | 7.088E-07 | 1.605E-04    |
| 2187 | 5.272E+04            | 6.742E-07 | 1.527E-04    |
| 2188 | 5.272E+04            | 6.413E-07 | 1.452E-04    |
| 2189 | 5.272E+04            | 6.101E-07 | 1.382E-04    |
| 2190 | 5.272E+04            | 5.803E-07 | 1.314E-04    |
| 2191 | 5.272E+04            | 5.520E-07 | 1.250E-04    |
| 2192 | 5.272E+04            | 5.251E-07 | 1.189E-04    |
| 2193 | 5.272E+04            | 4.995E-07 | 1.131E-04    |
| 2194 | 5.272E+04            | 4.751E-07 | 1.076E-04    |
| 2195 | 5.272E+04            | 4.519E-07 | 1.023E-04    |
| 2196 | 5.272E+04            | 4.299E-07 | 9.735E-05    |
| 2197 | 5.272E+04            | 4.089E-07 | 9.261E-05    |
| 2198 | 5.272E+04            | 3.890E-07 | 8.809E-05    |
| 2199 | 5.272E+04            | 3.700E-07 | 8.379E-05    |
| 2200 | 5.272E+04            | 3.520E-07 | 7.971E-05    |
| 2201 | 5.272E+04            | 3.348E-07 | 7.582E-05    |
| 2202 | 5.272E+04            | 3.185E-07 | 7.212E-05    |
| 2203 | 5.272E+04            | 3.029E-07 | 6.860E-05    |

Table D-47. Emission Rate of o-Xylene from Parcel 3 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA3.PRM

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=====
Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1800.00 ppmv
Methane : 65.6000 % volume
Carbon Dioxide : 34.4000 % volume
Air Pollutant : oXylene (HAP/VOC)
Molecular Wt = 106.17      Concentration =      0.950000 ppmV
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2004
Capacity : 52718 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 0.00 Mg/year
=====
Model Results
=====
Year      Refuse In Place (Mg)      oXylene (HAP/VOC) Emission Rate
      (Mg/yr)      (Cubic m/yr)
=====
1975      5.272E+03      2.866E-04      6.489E-02
1976      1.054E+04      5.591E-04      1.266E-01
1977      1.582E+04      8.184E-04      1.853E-01
1978      2.109E+04      1.065E-03      2.412E-01
1979      2.636E+04      1.300E-03      2.943E-01
1980      3.163E+04      1.523E-03      3.449E-01
1981      3.690E+04      1.735E-03      3.929E-01
1982      4.217E+04      1.937E-03      4.387E-01
1983      4.745E+04      2.129E-03      4.822E-01
1984      5.272E+04      2.312E-03      5.235E-01
1985      5.272E+04      2.199E-03      4.980E-01
1986      5.272E+04      2.092E-03      4.737E-01
1987      5.272E+04      1.990E-03      4.506E-01
1988      5.272E+04      1.893E-03      4.286E-01
1989      5.272E+04      1.801E-03      4.077E-01
1990      5.272E+04      1.713E-03      3.878E-01
1991      5.272E+04      1.629E-03      3.689E-01
1992      5.272E+04      1.550E-03      3.509E-01
1993      5.272E+04      1.474E-03      3.338E-01
1994      5.272E+04      1.402E-03      3.175E-01
1995      5.272E+04      1.334E-03      3.021E-01
1996      5.272E+04      1.269E-03      2.873E-01
1997      5.272E+04      1.207E-03      2.733E-01
1998      5.272E+04      1.148E-03      2.600E-01
1999      5.272E+04      1.092E-03      2.473E-01
2000      5.272E+04      1.039E-03      2.352E-01
2001      5.272E+04      9.881E-04      2.238E-01
2002      5.272E+04      9.400E-04      2.129E-01
2003      5.272E+04      8.941E-04      2.025E-01
2004      5.272E+04      8.505E-04      1.926E-01
2005      5.272E+04      8.090E-04      1.832E-01
2006      5.272E+04      7.696E-04      1.743E-01
2007      5.272E+04      7.320E-04      1.658E-01
2008      5.272E+04      6.963E-04      1.577E-01
2009      5.272E+04      6.624E-04      1.500E-01
2010      5.272E+04      6.301E-04      1.427E-01
2011      5.272E+04      5.993E-04      1.357E-01
2012      5.272E+04      5.701E-04      1.291E-01
2013      5.272E+04      5.423E-04      1.228E-01
2014      5.272E+04      5.159E-04      1.168E-01
2015      5.272E+04      4.907E-04      1.111E-01
2016      5.272E+04      4.668E-04      1.057E-01
2017      5.272E+04      4.440E-04      1.005E-01
2018      5.272E+04      4.223E-04      9.564E-02
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continued

Table D-47. Emission Rate of o-Xylene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 5.272E+04            | 4.017E-04 | 9.098E-02    |
| 2020 | 5.272E+04            | 3.822E-04 | 8.654E-02    |
| 2021 | 5.272E+04            | 3.635E-04 | 8.232E-02    |
| 2022 | 5.272E+04            | 3.458E-04 | 7.831E-02    |
| 2023 | 5.272E+04            | 3.289E-04 | 7.449E-02    |
| 2024 | 5.272E+04            | 3.129E-04 | 7.085E-02    |
| 2025 | 5.272E+04            | 2.976E-04 | 6.740E-02    |
| 2026 | 5.272E+04            | 2.831E-04 | 6.411E-02    |
| 2027 | 5.272E+04            | 2.693E-04 | 6.098E-02    |
| 2028 | 5.272E+04            | 2.562E-04 | 5.801E-02    |
| 2029 | 5.272E+04            | 2.437E-04 | 5.518E-02    |
| 2030 | 5.272E+04            | 2.318E-04 | 5.249E-02    |
| 2031 | 5.272E+04            | 2.205E-04 | 4.993E-02    |
| 2032 | 5.272E+04            | 2.097E-04 | 4.749E-02    |
| 2033 | 5.272E+04            | 1.995E-04 | 4.518E-02    |
| 2034 | 5.272E+04            | 1.898E-04 | 4.297E-02    |
| 2035 | 5.272E+04            | 1.805E-04 | 4.088E-02    |
| 2036 | 5.272E+04            | 1.717E-04 | 3.889E-02    |
| 2037 | 5.272E+04            | 1.633E-04 | 3.699E-02    |
| 2038 | 5.272E+04            | 1.554E-04 | 3.518E-02    |
| 2039 | 5.272E+04            | 1.478E-04 | 3.347E-02    |
| 2040 | 5.272E+04            | 1.406E-04 | 3.184E-02    |
| 2041 | 5.272E+04            | 1.337E-04 | 3.028E-02    |
| 2042 | 5.272E+04            | 1.272E-04 | 2.881E-02    |
| 2043 | 5.272E+04            | 1.210E-04 | 2.740E-02    |
| 2044 | 5.272E+04            | 1.151E-04 | 2.607E-02    |
| 2045 | 5.272E+04            | 1.095E-04 | 2.479E-02    |
| 2046 | 5.272E+04            | 1.041E-04 | 2.359E-02    |
| 2047 | 5.272E+04            | 9.907E-05 | 2.243E-02    |
| 2048 | 5.272E+04            | 9.424E-05 | 2.134E-02    |
| 2049 | 5.272E+04            | 8.964E-05 | 2.030E-02    |
| 2050 | 5.272E+04            | 8.527E-05 | 1.931E-02    |
| 2051 | 5.272E+04            | 8.111E-05 | 1.837E-02    |
| 2052 | 5.272E+04            | 7.716E-05 | 1.747E-02    |
| 2053 | 5.272E+04            | 7.339E-05 | 1.662E-02    |
| 2054 | 5.272E+04            | 6.981E-05 | 1.581E-02    |
| 2055 | 5.272E+04            | 6.641E-05 | 1.504E-02    |
| 2056 | 5.272E+04            | 6.317E-05 | 1.431E-02    |
| 2057 | 5.272E+04            | 6.009E-05 | 1.361E-02    |
| 2058 | 5.272E+04            | 5.716E-05 | 1.294E-02    |
| 2059 | 5.272E+04            | 5.437E-05 | 1.231E-02    |
| 2060 | 5.272E+04            | 5.172E-05 | 1.171E-02    |
| 2061 | 5.272E+04            | 4.920E-05 | 1.114E-02    |
| 2062 | 5.272E+04            | 4.680E-05 | 1.060E-02    |
| 2063 | 5.272E+04            | 4.452E-05 | 1.008E-02    |
| 2064 | 5.272E+04            | 4.234E-05 | 9.589E-03    |
| 2065 | 5.272E+04            | 4.028E-05 | 9.121E-03    |
| 2066 | 5.272E+04            | 3.831E-05 | 8.676E-03    |
| 2067 | 5.272E+04            | 3.645E-05 | 8.253E-03    |
| 2068 | 5.272E+04            | 3.467E-05 | 7.851E-03    |
| 2069 | 5.272E+04            | 3.298E-05 | 7.468E-03    |
| 2070 | 5.272E+04            | 3.137E-05 | 7.104E-03    |
| 2071 | 5.272E+04            | 2.984E-05 | 6.757E-03    |
| 2072 | 5.272E+04            | 2.838E-05 | 6.428E-03    |
| 2073 | 5.272E+04            | 2.700E-05 | 6.114E-03    |
| 2074 | 5.272E+04            | 2.568E-05 | 5.816E-03    |
| 2075 | 5.272E+04            | 2.443E-05 | 5.532E-03    |
| 2076 | 5.272E+04            | 2.324E-05 | 5.263E-03    |
| 2077 | 5.272E+04            | 2.211E-05 | 5.006E-03    |
| 2078 | 5.272E+04            | 2.103E-05 | 4.762E-03    |
| 2079 | 5.272E+04            | 2.000E-05 | 4.530E-03    |
| 2080 | 5.272E+04            | 1.903E-05 | 4.309E-03    |
| 2081 | 5.272E+04            | 1.810E-05 | 4.098E-03    |
| 2082 | 5.272E+04            | 1.722E-05 | 3.899E-03    |
| 2083 | 5.272E+04            | 1.638E-05 | 3.708E-03    |
| 2084 | 5.272E+04            | 1.558E-05 | 3.528E-03    |
| 2085 | 5.272E+04            | 1.482E-05 | 3.356E-03    |
| 2086 | 5.272E+04            | 1.410E-05 | 3.192E-03    |
| 2087 | 5.272E+04            | 1.341E-05 | 3.036E-03    |
| 2088 | 5.272E+04            | 1.275E-05 | 2.888E-03    |

continued

Table D-47. Emission Rate of o-Xylene from Parcel 3 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 5.272E+04            | 1.213E-05 | 2.747E-03    |
| 2090 | 5.272E+04            | 1.154E-05 | 2.613E-03    |
| 2091 | 5.272E+04            | 1.098E-05 | 2.486E-03    |
| 2092 | 5.272E+04            | 1.044E-05 | 2.365E-03    |
| 2093 | 5.272E+04            | 9.933E-06 | 2.249E-03    |
| 2094 | 5.272E+04            | 9.448E-06 | 2.140E-03    |
| 2095 | 5.272E+04            | 8.987E-06 | 2.035E-03    |
| 2096 | 5.272E+04            | 8.549E-06 | 1.936E-03    |
| 2097 | 5.272E+04            | 8.132E-06 | 1.842E-03    |
| 2098 | 5.272E+04            | 7.736E-06 | 1.752E-03    |
| 2099 | 5.272E+04            | 7.358E-06 | 1.666E-03    |
| 2100 | 5.272E+04            | 6.999E-06 | 1.585E-03    |
| 2101 | 5.272E+04            | 6.658E-06 | 1.508E-03    |
| 2102 | 5.272E+04            | 6.333E-06 | 1.434E-03    |
| 2103 | 5.272E+04            | 6.024E-06 | 1.364E-03    |
| 2104 | 5.272E+04            | 5.731E-06 | 1.298E-03    |
| 2105 | 5.272E+04            | 5.451E-06 | 1.234E-03    |
| 2106 | 5.272E+04            | 5.185E-06 | 1.174E-03    |
| 2107 | 5.272E+04            | 4.932E-06 | 1.117E-03    |
| 2108 | 5.272E+04            | 4.692E-06 | 1.062E-03    |
| 2109 | 5.272E+04            | 4.463E-06 | 1.011E-03    |
| 2110 | 5.272E+04            | 4.245E-06 | 9.614E-04    |
| 2111 | 5.272E+04            | 4.038E-06 | 9.145E-04    |
| 2112 | 5.272E+04            | 3.841E-06 | 8.699E-04    |
| 2113 | 5.272E+04            | 3.654E-06 | 8.275E-04    |
| 2114 | 5.272E+04            | 3.476E-06 | 7.871E-04    |
| 2115 | 5.272E+04            | 3.306E-06 | 7.487E-04    |
| 2116 | 5.272E+04            | 3.145E-06 | 7.122E-04    |
| 2117 | 5.272E+04            | 2.992E-06 | 6.775E-04    |
| 2118 | 5.272E+04            | 2.846E-06 | 6.444E-04    |
| 2119 | 5.272E+04            | 2.707E-06 | 6.130E-04    |
| 2120 | 5.272E+04            | 2.575E-06 | 5.831E-04    |
| 2121 | 5.272E+04            | 2.449E-06 | 5.547E-04    |
| 2122 | 5.272E+04            | 2.330E-06 | 5.276E-04    |
| 2123 | 5.272E+04            | 2.216E-06 | 5.019E-04    |
| 2124 | 5.272E+04            | 2.108E-06 | 4.774E-04    |
| 2125 | 5.272E+04            | 2.005E-06 | 4.541E-04    |
| 2126 | 5.272E+04            | 1.908E-06 | 4.320E-04    |
| 2127 | 5.272E+04            | 1.815E-06 | 4.109E-04    |
| 2128 | 5.272E+04            | 1.726E-06 | 3.909E-04    |
| 2129 | 5.272E+04            | 1.642E-06 | 3.718E-04    |
| 2130 | 5.272E+04            | 1.562E-06 | 3.537E-04    |
| 2131 | 5.272E+04            | 1.486E-06 | 3.364E-04    |
| 2132 | 5.272E+04            | 1.413E-06 | 3.200E-04    |
| 2133 | 5.272E+04            | 1.344E-06 | 3.044E-04    |
| 2134 | 5.272E+04            | 1.279E-06 | 2.896E-04    |
| 2135 | 5.272E+04            | 1.216E-06 | 2.754E-04    |
| 2136 | 5.272E+04            | 1.157E-06 | 2.620E-04    |
| 2137 | 5.272E+04            | 1.101E-06 | 2.492E-04    |
| 2138 | 5.272E+04            | 1.047E-06 | 2.371E-04    |
| 2139 | 5.272E+04            | 9.958E-07 | 2.255E-04    |
| 2140 | 5.272E+04            | 9.473E-07 | 2.145E-04    |
| 2141 | 5.272E+04            | 9.011E-07 | 2.041E-04    |
| 2142 | 5.272E+04            | 8.571E-07 | 1.941E-04    |
| 2143 | 5.272E+04            | 8.153E-07 | 1.846E-04    |
| 2144 | 5.272E+04            | 7.756E-07 | 1.756E-04    |
| 2145 | 5.272E+04            | 7.377E-07 | 1.671E-04    |
| 2146 | 5.272E+04            | 7.018E-07 | 1.589E-04    |
| 2147 | 5.272E+04            | 6.675E-07 | 1.512E-04    |
| 2148 | 5.272E+04            | 6.350E-07 | 1.438E-04    |
| 2149 | 5.272E+04            | 6.040E-07 | 1.368E-04    |
| 2150 | 5.272E+04            | 5.745E-07 | 1.301E-04    |
| 2151 | 5.272E+04            | 5.465E-07 | 1.238E-04    |
| 2152 | 5.272E+04            | 5.199E-07 | 1.177E-04    |
| 2153 | 5.272E+04            | 4.945E-07 | 1.120E-04    |
| 2154 | 5.272E+04            | 4.704E-07 | 1.065E-04    |
| 2155 | 5.272E+04            | 4.475E-07 | 1.013E-04    |
| 2156 | 5.272E+04            | 4.256E-07 | 9.639E-05    |
| 2157 | 5.272E+04            | 4.049E-07 | 9.169E-05    |
| 2158 | 5.272E+04            | 3.851E-07 | 8.721E-05    |

continued

Table D-47. Emission Rate of o-Xylene from Parcel 3 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 5.272E+04            | 3.663E-07 | 8.296E-05    |
| 2160 | 5.272E+04            | 3.485E-07 | 7.891E-05    |
| 2161 | 5.272E+04            | 3.315E-07 | 7.507E-05    |
| 2162 | 5.272E+04            | 3.153E-07 | 7.141E-05    |
| 2163 | 5.272E+04            | 2.999E-07 | 6.792E-05    |
| 2164 | 5.272E+04            | 2.853E-07 | 6.461E-05    |
| 2165 | 5.272E+04            | 2.714E-07 | 6.146E-05    |
| 2166 | 5.272E+04            | 2.582E-07 | 5.846E-05    |
| 2167 | 5.272E+04            | 2.456E-07 | 5.561E-05    |
| 2168 | 5.272E+04            | 2.336E-07 | 5.290E-05    |
| 2169 | 5.272E+04            | 2.222E-07 | 5.032E-05    |
| 2170 | 5.272E+04            | 2.114E-07 | 4.786E-05    |
| 2171 | 5.272E+04            | 2.011E-07 | 4.553E-05    |
| 2172 | 5.272E+04            | 1.913E-07 | 4.331E-05    |
| 2173 | 5.272E+04            | 1.819E-07 | 4.120E-05    |
| 2174 | 5.272E+04            | 1.731E-07 | 3.919E-05    |
| 2175 | 5.272E+04            | 1.646E-07 | 3.728E-05    |
| 2176 | 5.272E+04            | 1.566E-07 | 3.546E-05    |
| 2177 | 5.272E+04            | 1.489E-07 | 3.373E-05    |
| 2178 | 5.272E+04            | 1.417E-07 | 3.208E-05    |
| 2179 | 5.272E+04            | 1.348E-07 | 3.052E-05    |
| 2180 | 5.272E+04            | 1.282E-07 | 2.903E-05    |
| 2181 | 5.272E+04            | 1.219E-07 | 2.762E-05    |
| 2182 | 5.272E+04            | 1.160E-07 | 2.627E-05    |
| 2183 | 5.272E+04            | 1.103E-07 | 2.499E-05    |
| 2184 | 5.272E+04            | 1.050E-07 | 2.377E-05    |
| 2185 | 5.272E+04            | 9.984E-08 | 2.261E-05    |
| 2186 | 5.272E+04            | 9.497E-08 | 2.151E-05    |
| 2187 | 5.272E+04            | 9.034E-08 | 2.046E-05    |
| 2188 | 5.272E+04            | 8.593E-08 | 1.946E-05    |
| 2189 | 5.272E+04            | 8.174E-08 | 1.851E-05    |
| 2190 | 5.272E+04            | 7.776E-08 | 1.761E-05    |
| 2191 | 5.272E+04            | 7.396E-08 | 1.675E-05    |
| 2192 | 5.272E+04            | 7.036E-08 | 1.593E-05    |
| 2193 | 5.272E+04            | 6.693E-08 | 1.516E-05    |
| 2194 | 5.272E+04            | 6.366E-08 | 1.442E-05    |
| 2195 | 5.272E+04            | 6.056E-08 | 1.371E-05    |
| 2196 | 5.272E+04            | 5.760E-08 | 1.304E-05    |
| 2197 | 5.272E+04            | 5.479E-08 | 1.241E-05    |
| 2198 | 5.272E+04            | 5.212E-08 | 1.180E-05    |
| 2199 | 5.272E+04            | 4.958E-08 | 1.123E-05    |
| 2200 | 5.272E+04            | 4.716E-08 | 1.068E-05    |
| 2201 | 5.272E+04            | 4.486E-08 | 1.016E-05    |
| 2202 | 5.272E+04            | 4.267E-08 | 9.664E-06    |
| 2203 | 5.272E+04            | 4.059E-08 | 9.192E-06    |

Table D-48. Emission Rate of Methane from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177-2.000\030177-1.003\BUSHVA-1\STRATA4.PRM

```

=====
Model Parameters
=====
Lo : 170.00 m3 / Mg
k : 0.0500 1/yr
NMOC : 1870.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974   Current Year : 2004   Closure Year: 2003
Capacity : 30752 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 5271.79 Mg/year
=====
Model Results
=====
Year      Refuse In Place (Mg)      Methane Emission Rate
                        (Mg/yr)      (Cubic m/yr)
=====
1975      3.075E+03      1.744E+01      2.614E+04
1976      6.150E+03      3.403E+01      5.100E+04
1977      9.226E+03      4.981E+01      7.466E+04
1978      1.230E+04      6.482E+01      9.715E+04
1979      1.538E+04      7.909E+01      1.186E+05
1980      1.845E+04      9.268E+01      1.389E+05
1981      2.153E+04      1.056E+02      1.583E+05
1982      2.460E+04      1.179E+02      1.767E+05
1983      2.768E+04      1.296E+02      1.942E+05
1984      3.075E+04      1.407E+02      2.109E+05
1985      3.075E+04      1.338E+02      2.006E+05
1986      3.075E+04      1.273E+02      1.908E+05
1987      3.075E+04      1.211E+02      1.815E+05
1988      3.075E+04      1.152E+02      1.727E+05
1989      3.075E+04      1.096E+02      1.642E+05
1990      3.075E+04      1.042E+02      1.562E+05
1991      3.075E+04      9.914E+01      1.486E+05
1992      3.075E+04      9.431E+01      1.414E+05
1993      3.075E+04      8.971E+01      1.345E+05
1994      3.075E+04      8.533E+01      1.279E+05
1995      3.075E+04      8.117E+01      1.217E+05
1996      3.075E+04      7.721E+01      1.157E+05
1997      3.075E+04      7.345E+01      1.101E+05
1998      3.075E+04      6.987E+01      1.047E+05
1999      3.075E+04      6.646E+01      9.961E+04
2000      3.075E+04      6.322E+01      9.476E+04
2001      3.075E+04      6.013E+01      9.014E+04
2002      3.075E+04      5.720E+01      8.574E+04
2003      3.075E+04      5.441E+01      8.156E+04
2004      3.075E+04      5.176E+01      7.758E+04
2005      3.075E+04      4.923E+01      7.380E+04
2006      3.075E+04      4.683E+01      7.020E+04
2007      3.075E+04      4.455E+01      6.677E+04
2008      3.075E+04      4.238E+01      6.352E+04
2009      3.075E+04      4.031E+01      6.042E+04
2010      3.075E+04      3.834E+01      5.747E+04
2011      3.075E+04      3.647E+01      5.467E+04
2012      3.075E+04      3.469E+01      5.200E+04
2013      3.075E+04      3.300E+01      4.947E+04
2014      3.075E+04      3.139E+01      4.705E+04
2015      3.075E+04      2.986E+01      4.476E+04
2016      3.075E+04      2.841E+01      4.258E+04
2017      3.075E+04      2.702E+01      4.050E+04
2018      3.075E+04      2.570E+01      3.853E+04
2019      3.075E+04      2.445E+01      3.665E+04
2020      3.075E+04      2.326E+01      3.486E+04
=====

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continued

Table D-48. Emission Rate of Methane from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2021 | 3.075E+04            | 2.212E+01 | 3.316E+04    |
| 2022 | 3.075E+04            | 2.104E+01 | 3.154E+04    |
| 2023 | 3.075E+04            | 2.002E+01 | 3.000E+04    |
| 2024 | 3.075E+04            | 1.904E+01 | 2.854E+04    |
| 2025 | 3.075E+04            | 1.811E+01 | 2.715E+04    |
| 2026 | 3.075E+04            | 1.723E+01 | 2.582E+04    |
| 2027 | 3.075E+04            | 1.639E+01 | 2.456E+04    |
| 2028 | 3.075E+04            | 1.559E+01 | 2.337E+04    |
| 2029 | 3.075E+04            | 1.483E+01 | 2.223E+04    |
| 2030 | 3.075E+04            | 1.411E+01 | 2.114E+04    |
| 2031 | 3.075E+04            | 1.342E+01 | 2.011E+04    |
| 2032 | 3.075E+04            | 1.276E+01 | 1.913E+04    |
| 2033 | 3.075E+04            | 1.214E+01 | 1.820E+04    |
| 2034 | 3.075E+04            | 1.155E+01 | 1.731E+04    |
| 2035 | 3.075E+04            | 1.099E+01 | 1.647E+04    |
| 2036 | 3.075E+04            | 1.045E+01 | 1.566E+04    |
| 2037 | 3.075E+04            | 9.940E+00 | 1.490E+04    |
| 2038 | 3.075E+04            | 9.455E+00 | 1.417E+04    |
| 2039 | 3.075E+04            | 8.994E+00 | 1.348E+04    |
| 2040 | 3.075E+04            | 8.555E+00 | 1.282E+04    |
| 2041 | 3.075E+04            | 8.138E+00 | 1.220E+04    |
| 2042 | 3.075E+04            | 7.741E+00 | 1.160E+04    |
| 2043 | 3.075E+04            | 7.364E+00 | 1.104E+04    |
| 2044 | 3.075E+04            | 7.005E+00 | 1.050E+04    |
| 2045 | 3.075E+04            | 6.663E+00 | 9.987E+03    |
| 2046 | 3.075E+04            | 6.338E+00 | 9.500E+03    |
| 2047 | 3.075E+04            | 6.029E+00 | 9.037E+03    |
| 2048 | 3.075E+04            | 5.735E+00 | 8.596E+03    |
| 2049 | 3.075E+04            | 5.455E+00 | 8.177E+03    |
| 2050 | 3.075E+04            | 5.189E+00 | 7.778E+03    |
| 2051 | 3.075E+04            | 4.936E+00 | 7.399E+03    |
| 2052 | 3.075E+04            | 4.695E+00 | 7.038E+03    |
| 2053 | 3.075E+04            | 4.466E+00 | 6.695E+03    |
| 2054 | 3.075E+04            | 4.249E+00 | 6.368E+03    |
| 2055 | 3.075E+04            | 4.041E+00 | 6.058E+03    |
| 2056 | 3.075E+04            | 3.844E+00 | 5.762E+03    |
| 2057 | 3.075E+04            | 3.657E+00 | 5.481E+03    |
| 2058 | 3.075E+04            | 3.478E+00 | 5.214E+03    |
| 2059 | 3.075E+04            | 3.309E+00 | 4.960E+03    |
| 2060 | 3.075E+04            | 3.147E+00 | 4.718E+03    |
| 2061 | 3.075E+04            | 2.994E+00 | 4.488E+03    |
| 2062 | 3.075E+04            | 2.848E+00 | 4.269E+03    |
| 2063 | 3.075E+04            | 2.709E+00 | 4.061E+03    |
| 2064 | 3.075E+04            | 2.577E+00 | 3.862E+03    |
| 2065 | 3.075E+04            | 2.451E+00 | 3.674E+03    |
| 2066 | 3.075E+04            | 2.332E+00 | 3.495E+03    |
| 2067 | 3.075E+04            | 2.218E+00 | 3.324E+03    |
| 2068 | 3.075E+04            | 2.110E+00 | 3.162E+03    |
| 2069 | 3.075E+04            | 2.007E+00 | 3.008E+03    |
| 2070 | 3.075E+04            | 1.909E+00 | 2.861E+03    |
| 2071 | 3.075E+04            | 1.816E+00 | 2.722E+03    |
| 2072 | 3.075E+04            | 1.727E+00 | 2.589E+03    |
| 2073 | 3.075E+04            | 1.643E+00 | 2.463E+03    |
| 2074 | 3.075E+04            | 1.563E+00 | 2.343E+03    |
| 2075 | 3.075E+04            | 1.487E+00 | 2.228E+03    |
| 2076 | 3.075E+04            | 1.414E+00 | 2.120E+03    |
| 2077 | 3.075E+04            | 1.345E+00 | 2.016E+03    |
| 2078 | 3.075E+04            | 1.280E+00 | 1.918E+03    |
| 2079 | 3.075E+04            | 1.217E+00 | 1.825E+03    |
| 2080 | 3.075E+04            | 1.158E+00 | 1.736E+03    |
| 2081 | 3.075E+04            | 1.101E+00 | 1.651E+03    |
| 2082 | 3.075E+04            | 1.048E+00 | 1.570E+03    |
| 2083 | 3.075E+04            | 9.966E-01 | 1.494E+03    |
| 2084 | 3.075E+04            | 9.480E-01 | 1.421E+03    |
| 2085 | 3.075E+04            | 9.017E-01 | 1.352E+03    |
| 2086 | 3.075E+04            | 8.578E-01 | 1.286E+03    |
| 2087 | 3.075E+04            | 8.159E-01 | 1.223E+03    |
| 2088 | 3.075E+04            | 7.761E-01 | 1.163E+03    |
| 2089 | 3.075E+04            | 7.383E-01 | 1.107E+03    |
| 2090 | 3.075E+04            | 7.023E-01 | 1.053E+03    |

continued



Table D-48. Emission Rate of Methane from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2091 | 3.075E+04            | 6.680E-01 | 1.001E+03    |
| 2092 | 3.075E+04            | 6.354E-01 | 9.525E+02    |
| 2093 | 3.075E+04            | 6.045E-01 | 9.060E+02    |
| 2094 | 3.075E+04            | 5.750E-01 | 8.618E+02    |
| 2095 | 3.075E+04            | 5.469E-01 | 8.198E+02    |
| 2096 | 3.075E+04            | 5.203E-01 | 7.798E+02    |
| 2097 | 3.075E+04            | 4.949E-01 | 7.418E+02    |
| 2098 | 3.075E+04            | 4.707E-01 | 7.056E+02    |
| 2099 | 3.075E+04            | 4.478E-01 | 6.712E+02    |
| 2100 | 3.075E+04            | 4.260E-01 | 6.385E+02    |
| 2101 | 3.075E+04            | 4.052E-01 | 6.073E+02    |
| 2102 | 3.075E+04            | 3.854E-01 | 5.777E+02    |
| 2103 | 3.075E+04            | 3.666E-01 | 5.495E+02    |
| 2104 | 3.075E+04            | 3.487E-01 | 5.227E+02    |
| 2105 | 3.075E+04            | 3.317E-01 | 4.972E+02    |
| 2106 | 3.075E+04            | 3.156E-01 | 4.730E+02    |
| 2107 | 3.075E+04            | 3.002E-01 | 4.499E+02    |
| 2108 | 3.075E+04            | 2.855E-01 | 4.280E+02    |
| 2109 | 3.075E+04            | 2.716E-01 | 4.071E+02    |
| 2110 | 3.075E+04            | 2.584E-01 | 3.872E+02    |
| 2111 | 3.075E+04            | 2.458E-01 | 3.684E+02    |
| 2112 | 3.075E+04            | 2.338E-01 | 3.504E+02    |
| 2113 | 3.075E+04            | 2.224E-01 | 3.333E+02    |
| 2114 | 3.075E+04            | 2.115E-01 | 3.171E+02    |
| 2115 | 3.075E+04            | 2.012E-01 | 3.016E+02    |
| 2116 | 3.075E+04            | 1.914E-01 | 2.869E+02    |
| 2117 | 3.075E+04            | 1.821E-01 | 2.729E+02    |
| 2118 | 3.075E+04            | 1.732E-01 | 2.596E+02    |
| 2119 | 3.075E+04            | 1.647E-01 | 2.469E+02    |
| 2120 | 3.075E+04            | 1.567E-01 | 2.349E+02    |
| 2121 | 3.075E+04            | 1.491E-01 | 2.234E+02    |
| 2122 | 3.075E+04            | 1.418E-01 | 2.125E+02    |
| 2123 | 3.075E+04            | 1.349E-01 | 2.022E+02    |
| 2124 | 3.075E+04            | 1.283E-01 | 1.923E+02    |
| 2125 | 3.075E+04            | 1.220E-01 | 1.829E+02    |
| 2126 | 3.075E+04            | 1.161E-01 | 1.740E+02    |
| 2127 | 3.075E+04            | 1.104E-01 | 1.655E+02    |
| 2128 | 3.075E+04            | 1.050E-01 | 1.574E+02    |
| 2129 | 3.075E+04            | 9.992E-02 | 1.498E+02    |
| 2130 | 3.075E+04            | 9.504E-02 | 1.425E+02    |
| 2131 | 3.075E+04            | 9.041E-02 | 1.355E+02    |
| 2132 | 3.075E+04            | 8.600E-02 | 1.289E+02    |
| 2133 | 3.075E+04            | 8.180E-02 | 1.226E+02    |
| 2134 | 3.075E+04            | 7.781E-02 | 1.166E+02    |
| 2135 | 3.075E+04            | 7.402E-02 | 1.109E+02    |
| 2136 | 3.075E+04            | 7.041E-02 | 1.055E+02    |
| 2137 | 3.075E+04            | 6.698E-02 | 1.004E+02    |
| 2138 | 3.075E+04            | 6.371E-02 | 9.549E+01    |
| 2139 | 3.075E+04            | 6.060E-02 | 9.084E+01    |
| 2140 | 3.075E+04            | 5.765E-02 | 8.641E+01    |
| 2141 | 3.075E+04            | 5.483E-02 | 8.219E+01    |
| 2142 | 3.075E+04            | 5.216E-02 | 7.818E+01    |
| 2143 | 3.075E+04            | 4.962E-02 | 7.437E+01    |
| 2144 | 3.075E+04            | 4.720E-02 | 7.074E+01    |
| 2145 | 3.075E+04            | 4.489E-02 | 6.729E+01    |
| 2146 | 3.075E+04            | 4.271E-02 | 6.401E+01    |
| 2147 | 3.075E+04            | 4.062E-02 | 6.089E+01    |
| 2148 | 3.075E+04            | 3.864E-02 | 5.792E+01    |
| 2149 | 3.075E+04            | 3.676E-02 | 5.510E+01    |
| 2150 | 3.075E+04            | 3.496E-02 | 5.241E+01    |
| 2151 | 3.075E+04            | 3.326E-02 | 4.985E+01    |
| 2152 | 3.075E+04            | 3.164E-02 | 4.742E+01    |
| 2153 | 3.075E+04            | 3.009E-02 | 4.511E+01    |
| 2154 | 3.075E+04            | 2.863E-02 | 4.291E+01    |
| 2155 | 3.075E+04            | 2.723E-02 | 4.082E+01    |
| 2156 | 3.075E+04            | 2.590E-02 | 3.883E+01    |
| 2157 | 3.075E+04            | 2.464E-02 | 3.693E+01    |
| 2158 | 3.075E+04            | 2.344E-02 | 3.513E+01    |
| 2159 | 3.075E+04            | 2.229E-02 | 3.342E+01    |
| 2160 | 3.075E+04            | 2.121E-02 | 3.179E+01    |

continued

Table D-48. Emission Rate of Methane from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2161 | 3.075E+04            | 2.017E-02 | 3.024E+01    |
| 2162 | 3.075E+04            | 1.919E-02 | 2.876E+01    |
| 2163 | 3.075E+04            | 1.825E-02 | 2.736E+01    |
| 2164 | 3.075E+04            | 1.736E-02 | 2.603E+01    |
| 2165 | 3.075E+04            | 1.652E-02 | 2.476E+01    |
| 2166 | 3.075E+04            | 1.571E-02 | 2.355E+01    |
| 2167 | 3.075E+04            | 1.494E-02 | 2.240E+01    |
| 2168 | 3.075E+04            | 1.422E-02 | 2.131E+01    |
| 2169 | 3.075E+04            | 1.352E-02 | 2.027E+01    |
| 2170 | 3.075E+04            | 1.286E-02 | 1.928E+01    |
| 2171 | 3.075E+04            | 1.224E-02 | 1.834E+01    |
| 2172 | 3.075E+04            | 1.164E-02 | 1.745E+01    |
| 2173 | 3.075E+04            | 1.107E-02 | 1.659E+01    |
| 2174 | 3.075E+04            | 1.053E-02 | 1.579E+01    |
| 2175 | 3.075E+04            | 1.002E-02 | 1.502E+01    |
| 2176 | 3.075E+04            | 9.529E-03 | 1.428E+01    |
| 2177 | 3.075E+04            | 9.064E-03 | 1.359E+01    |
| 2178 | 3.075E+04            | 8.622E-03 | 1.292E+01    |
| 2179 | 3.075E+04            | 8.202E-03 | 1.229E+01    |
| 2180 | 3.075E+04            | 7.802E-03 | 1.169E+01    |
| 2181 | 3.075E+04            | 7.421E-03 | 1.112E+01    |
| 2182 | 3.075E+04            | 7.059E-03 | 1.058E+01    |
| 2183 | 3.075E+04            | 6.715E-03 | 1.007E+01    |
| 2184 | 3.075E+04            | 6.387E-03 | 9.574E+00    |
| 2185 | 3.075E+04            | 6.076E-03 | 9.107E+00    |
| 2186 | 3.075E+04            | 5.780E-03 | 8.663E+00    |
| 2187 | 3.075E+04            | 5.498E-03 | 8.241E+00    |
| 2188 | 3.075E+04            | 5.230E-03 | 7.839E+00    |
| 2189 | 3.075E+04            | 4.974E-03 | 7.456E+00    |
| 2190 | 3.075E+04            | 4.732E-03 | 7.093E+00    |
| 2191 | 3.075E+04            | 4.501E-03 | 6.747E+00    |
| 2192 | 3.075E+04            | 4.282E-03 | 6.418E+00    |
| 2193 | 3.075E+04            | 4.073E-03 | 6.105E+00    |
| 2194 | 3.075E+04            | 3.874E-03 | 5.807E+00    |
| 2195 | 3.075E+04            | 3.685E-03 | 5.524E+00    |
| 2196 | 3.075E+04            | 3.505E-03 | 5.254E+00    |
| 2197 | 3.075E+04            | 3.335E-03 | 4.998E+00    |
| 2198 | 3.075E+04            | 3.172E-03 | 4.754E+00    |
| 2199 | 3.075E+04            | 3.017E-03 | 4.523E+00    |
| 2200 | 3.075E+04            | 2.870E-03 | 4.302E+00    |
| 2201 | 3.075E+04            | 2.730E-03 | 4.092E+00    |
| 2202 | 3.075E+04            | 2.597E-03 | 3.893E+00    |

Table D-49. Emission Rate of Carbon Dioxide from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA4.PRM

```

=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1870.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004  Closure Year: 2003
Capacity : 30752 Mg
Average Acceptance Rate Required from
          Current Year to Closure Year : 5271.79 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      Carbon Dioxide Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.075E+03      2.691E+01      1.470E+04
1976      6.150E+03      5.252E+01      2.869E+04
1977      9.226E+03      7.687E+01      4.199E+04
1978      1.230E+04      1.000E+02      5.465E+04
1979      1.538E+04      1.221E+02      6.669E+04
1980      1.845E+04      1.430E+02      7.814E+04
1981      2.153E+04      1.630E+02      8.903E+04
1982      2.460E+04      1.819E+02      9.939E+04
1983      2.768E+04      2.000E+02      1.092E+05
1984      3.075E+04      2.171E+02      1.186E+05
1985      3.075E+04      2.065E+02      1.128E+05
1986      3.075E+04      1.965E+02      1.073E+05
1987      3.075E+04      1.869E+02      1.021E+05
1988      3.075E+04      1.778E+02      9.712E+04
1989      3.075E+04      1.691E+02      9.238E+04
1990      3.075E+04      1.609E+02      8.788E+04
1991      3.075E+04      1.530E+02      8.359E+04
1992      3.075E+04      1.456E+02      7.952E+04
1993      3.075E+04      1.385E+02      7.564E+04
1994      3.075E+04      1.317E+02      7.195E+04
1995      3.075E+04      1.253E+02      6.844E+04
1996      3.075E+04      1.192E+02      6.510E+04
1997      3.075E+04      1.134E+02      6.193E+04
1998      3.075E+04      1.078E+02      5.891E+04
1999      3.075E+04      1.026E+02      5.603E+04
2000      3.075E+04      9.757E+01      5.330E+04
2001      3.075E+04      9.281E+01      5.070E+04
2002      3.075E+04      8.828E+01      4.823E+04
2003      3.075E+04      8.398E+01      4.588E+04
2004      3.075E+04      7.988E+01      4.364E+04
2005      3.075E+04      7.598E+01      4.151E+04
2006      3.075E+04      7.228E+01      3.949E+04
2007      3.075E+04      6.875E+01      3.756E+04
2008      3.075E+04      6.540E+01      3.573E+04
2009      3.075E+04      6.221E+01      3.399E+04
2010      3.075E+04      5.918E+01      3.233E+04
2011      3.075E+04      5.629E+01      3.075E+04
2012      3.075E+04      5.355E+01      2.925E+04
2013      3.075E+04      5.093E+01      2.783E+04
2014      3.075E+04      4.845E+01      2.647E+04
2015      3.075E+04      4.609E+01      2.518E+04
2016      3.075E+04      4.384E+01      2.395E+04
2017      3.075E+04      4.170E+01      2.278E+04
2018      3.075E+04      3.967E+01      2.167E+04
2019      3.075E+04      3.773E+01      2.061E+04
2020      3.075E+04      3.589E+01      1.961E+04
=====

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continued

Table D-49. Emission Rate of Carbon Dioxide from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2021 | 3.075E+04            | 3.414E+01 | 1.865E+04    |
| 2022 | 3.075E+04            | 3.248E+01 | 1.774E+04    |
| 2023 | 3.075E+04            | 3.089E+01 | 1.688E+04    |
| 2024 | 3.075E+04            | 2.939E+01 | 1.605E+04    |
| 2025 | 3.075E+04            | 2.795E+01 | 1.527E+04    |
| 2026 | 3.075E+04            | 2.659E+01 | 1.453E+04    |
| 2027 | 3.075E+04            | 2.529E+01 | 1.382E+04    |
| 2028 | 3.075E+04            | 2.406E+01 | 1.314E+04    |
| 2029 | 3.075E+04            | 2.289E+01 | 1.250E+04    |
| 2030 | 3.075E+04            | 2.177E+01 | 1.189E+04    |
| 2031 | 3.075E+04            | 2.071E+01 | 1.131E+04    |
| 2032 | 3.075E+04            | 1.970E+01 | 1.076E+04    |
| 2033 | 3.075E+04            | 1.874E+01 | 1.024E+04    |
| 2034 | 3.075E+04            | 1.782E+01 | 9.737E+03    |
| 2035 | 3.075E+04            | 1.695E+01 | 9.262E+03    |
| 2036 | 3.075E+04            | 1.613E+01 | 8.811E+03    |
| 2037 | 3.075E+04            | 1.534E+01 | 8.381E+03    |
| 2038 | 3.075E+04            | 1.459E+01 | 7.972E+03    |
| 2039 | 3.075E+04            | 1.388E+01 | 7.583E+03    |
| 2040 | 3.075E+04            | 1.320E+01 | 7.213E+03    |
| 2041 | 3.075E+04            | 1.256E+01 | 6.862E+03    |
| 2042 | 3.075E+04            | 1.195E+01 | 6.527E+03    |
| 2043 | 3.075E+04            | 1.136E+01 | 6.209E+03    |
| 2044 | 3.075E+04            | 1.081E+01 | 5.906E+03    |
| 2045 | 3.075E+04            | 1.028E+01 | 5.618E+03    |
| 2046 | 3.075E+04            | 9.782E+00 | 5.344E+03    |
| 2047 | 3.075E+04            | 9.305E+00 | 5.083E+03    |
| 2048 | 3.075E+04            | 8.851E+00 | 4.835E+03    |
| 2049 | 3.075E+04            | 8.419E+00 | 4.599E+03    |
| 2050 | 3.075E+04            | 8.009E+00 | 4.375E+03    |
| 2051 | 3.075E+04            | 7.618E+00 | 4.162E+03    |
| 2052 | 3.075E+04            | 7.247E+00 | 3.959E+03    |
| 2053 | 3.075E+04            | 6.893E+00 | 3.766E+03    |
| 2054 | 3.075E+04            | 6.557E+00 | 3.582E+03    |
| 2055 | 3.075E+04            | 6.237E+00 | 3.407E+03    |
| 2056 | 3.075E+04            | 5.933E+00 | 3.241E+03    |
| 2057 | 3.075E+04            | 5.644E+00 | 3.083E+03    |
| 2058 | 3.075E+04            | 5.368E+00 | 2.933E+03    |
| 2059 | 3.075E+04            | 5.107E+00 | 2.790E+03    |
| 2060 | 3.075E+04            | 4.858E+00 | 2.654E+03    |
| 2061 | 3.075E+04            | 4.621E+00 | 2.524E+03    |
| 2062 | 3.075E+04            | 4.395E+00 | 2.401E+03    |
| 2063 | 3.075E+04            | 4.181E+00 | 2.284E+03    |
| 2064 | 3.075E+04            | 3.977E+00 | 2.173E+03    |
| 2065 | 3.075E+04            | 3.783E+00 | 2.067E+03    |
| 2066 | 3.075E+04            | 3.599E+00 | 1.966E+03    |
| 2067 | 3.075E+04            | 3.423E+00 | 1.870E+03    |
| 2068 | 3.075E+04            | 3.256E+00 | 1.779E+03    |
| 2069 | 3.075E+04            | 3.097E+00 | 1.692E+03    |
| 2070 | 3.075E+04            | 2.946E+00 | 1.610E+03    |
| 2071 | 3.075E+04            | 2.803E+00 | 1.531E+03    |
| 2072 | 3.075E+04            | 2.666E+00 | 1.456E+03    |
| 2073 | 3.075E+04            | 2.536E+00 | 1.385E+03    |
| 2074 | 3.075E+04            | 2.412E+00 | 1.318E+03    |
| 2075 | 3.075E+04            | 2.295E+00 | 1.254E+03    |
| 2076 | 3.075E+04            | 2.183E+00 | 1.192E+03    |
| 2077 | 3.075E+04            | 2.076E+00 | 1.134E+03    |
| 2078 | 3.075E+04            | 1.975E+00 | 1.079E+03    |
| 2079 | 3.075E+04            | 1.879E+00 | 1.026E+03    |
| 2080 | 3.075E+04            | 1.787E+00 | 9.762E+02    |
| 2081 | 3.075E+04            | 1.700E+00 | 9.286E+02    |
| 2082 | 3.075E+04            | 1.617E+00 | 8.833E+02    |
| 2083 | 3.075E+04            | 1.538E+00 | 8.403E+02    |
| 2084 | 3.075E+04            | 1.463E+00 | 7.993E+02    |
| 2085 | 3.075E+04            | 1.392E+00 | 7.603E+02    |
| 2086 | 3.075E+04            | 1.324E+00 | 7.232E+02    |
| 2087 | 3.075E+04            | 1.259E+00 | 6.879E+02    |
| 2088 | 3.075E+04            | 1.198E+00 | 6.544E+02    |
| 2089 | 3.075E+04            | 1.139E+00 | 6.225E+02    |
| 2090 | 3.075E+04            | 1.084E+00 | 5.921E+02    |

continued

Table D-49. Emission Rate of Carbon Dioxide from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2091 | 3.075E+04            | 1.031E+00 | 5.632E+02    |
| 2092 | 3.075E+04            | 9.807E-01 | 5.358E+02    |
| 2093 | 3.075E+04            | 9.329E-01 | 5.096E+02    |
| 2094 | 3.075E+04            | 8.874E-01 | 4.848E+02    |
| 2095 | 3.075E+04            | 8.441E-01 | 4.611E+02    |
| 2096 | 3.075E+04            | 8.029E-01 | 4.387E+02    |
| 2097 | 3.075E+04            | 7.638E-01 | 4.173E+02    |
| 2098 | 3.075E+04            | 7.265E-01 | 3.969E+02    |
| 2099 | 3.075E+04            | 6.911E-01 | 3.775E+02    |
| 2100 | 3.075E+04            | 6.574E-01 | 3.591E+02    |
| 2101 | 3.075E+04            | 6.253E-01 | 3.416E+02    |
| 2102 | 3.075E+04            | 5.948E-01 | 3.250E+02    |
| 2103 | 3.075E+04            | 5.658E-01 | 3.091E+02    |
| 2104 | 3.075E+04            | 5.382E-01 | 2.940E+02    |
| 2105 | 3.075E+04            | 5.120E-01 | 2.797E+02    |
| 2106 | 3.075E+04            | 4.870E-01 | 2.661E+02    |
| 2107 | 3.075E+04            | 4.633E-01 | 2.531E+02    |
| 2108 | 3.075E+04            | 4.407E-01 | 2.407E+02    |
| 2109 | 3.075E+04            | 4.192E-01 | 2.290E+02    |
| 2110 | 3.075E+04            | 3.987E-01 | 2.178E+02    |
| 2111 | 3.075E+04            | 3.793E-01 | 2.072E+02    |
| 2112 | 3.075E+04            | 3.608E-01 | 1.971E+02    |
| 2113 | 3.075E+04            | 3.432E-01 | 1.875E+02    |
| 2114 | 3.075E+04            | 3.265E-01 | 1.783E+02    |
| 2115 | 3.075E+04            | 3.105E-01 | 1.696E+02    |
| 2116 | 3.075E+04            | 2.954E-01 | 1.614E+02    |
| 2117 | 3.075E+04            | 2.810E-01 | 1.535E+02    |
| 2118 | 3.075E+04            | 2.673E-01 | 1.460E+02    |
| 2119 | 3.075E+04            | 2.542E-01 | 1.389E+02    |
| 2120 | 3.075E+04            | 2.418E-01 | 1.321E+02    |
| 2121 | 3.075E+04            | 2.300E-01 | 1.257E+02    |
| 2122 | 3.075E+04            | 2.188E-01 | 1.195E+02    |
| 2123 | 3.075E+04            | 2.082E-01 | 1.137E+02    |
| 2124 | 3.075E+04            | 1.980E-01 | 1.082E+02    |
| 2125 | 3.075E+04            | 1.883E-01 | 1.029E+02    |
| 2126 | 3.075E+04            | 1.792E-01 | 9.788E+01    |
| 2127 | 3.075E+04            | 1.704E-01 | 9.310E+01    |
| 2128 | 3.075E+04            | 1.621E-01 | 8.856E+01    |
| 2129 | 3.075E+04            | 1.542E-01 | 8.424E+01    |
| 2130 | 3.075E+04            | 1.467E-01 | 8.013E+01    |
| 2131 | 3.075E+04            | 1.395E-01 | 7.623E+01    |
| 2132 | 3.075E+04            | 1.327E-01 | 7.251E+01    |
| 2133 | 3.075E+04            | 1.263E-01 | 6.897E+01    |
| 2134 | 3.075E+04            | 1.201E-01 | 6.561E+01    |
| 2135 | 3.075E+04            | 1.142E-01 | 6.241E+01    |
| 2136 | 3.075E+04            | 1.087E-01 | 5.936E+01    |
| 2137 | 3.075E+04            | 1.034E-01 | 5.647E+01    |
| 2138 | 3.075E+04            | 9.833E-02 | 5.372E+01    |
| 2139 | 3.075E+04            | 9.353E-02 | 5.110E+01    |
| 2140 | 3.075E+04            | 8.897E-02 | 4.860E+01    |
| 2141 | 3.075E+04            | 8.463E-02 | 4.623E+01    |
| 2142 | 3.075E+04            | 8.050E-02 | 4.398E+01    |
| 2143 | 3.075E+04            | 7.658E-02 | 4.183E+01    |
| 2144 | 3.075E+04            | 7.284E-02 | 3.979E+01    |
| 2145 | 3.075E+04            | 6.929E-02 | 3.785E+01    |
| 2146 | 3.075E+04            | 6.591E-02 | 3.601E+01    |
| 2147 | 3.075E+04            | 6.270E-02 | 3.425E+01    |
| 2148 | 3.075E+04            | 5.964E-02 | 3.258E+01    |
| 2149 | 3.075E+04            | 5.673E-02 | 3.099E+01    |
| 2150 | 3.075E+04            | 5.396E-02 | 2.948E+01    |
| 2151 | 3.075E+04            | 5.133E-02 | 2.804E+01    |
| 2152 | 3.075E+04            | 4.883E-02 | 2.667E+01    |
| 2153 | 3.075E+04            | 4.645E-02 | 2.537E+01    |
| 2154 | 3.075E+04            | 4.418E-02 | 2.414E+01    |
| 2155 | 3.075E+04            | 4.203E-02 | 2.296E+01    |
| 2156 | 3.075E+04            | 3.998E-02 | 2.184E+01    |
| 2157 | 3.075E+04            | 3.803E-02 | 2.077E+01    |
| 2158 | 3.075E+04            | 3.617E-02 | 1.976E+01    |
| 2159 | 3.075E+04            | 3.441E-02 | 1.880E+01    |
| 2160 | 3.075E+04            | 3.273E-02 | 1.788E+01    |

continued

Table D-49. Emission Rate of Carbon Dioxide from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2161 | 3.075E+04            | 3.113E-02 | 1.701E+01    |
| 2162 | 3.075E+04            | 2.962E-02 | 1.618E+01    |
| 2163 | 3.075E+04            | 2.817E-02 | 1.539E+01    |
| 2164 | 3.075E+04            | 2.680E-02 | 1.464E+01    |
| 2165 | 3.075E+04            | 2.549E-02 | 1.393E+01    |
| 2166 | 3.075E+04            | 2.425E-02 | 1.325E+01    |
| 2167 | 3.075E+04            | 2.306E-02 | 1.260E+01    |
| 2168 | 3.075E+04            | 2.194E-02 | 1.199E+01    |
| 2169 | 3.075E+04            | 2.087E-02 | 1.140E+01    |
| 2170 | 3.075E+04            | 1.985E-02 | 1.084E+01    |
| 2171 | 3.075E+04            | 1.888E-02 | 1.032E+01    |
| 2172 | 3.075E+04            | 1.796E-02 | 9.813E+00    |
| 2173 | 3.075E+04            | 1.709E-02 | 9.334E+00    |
| 2174 | 3.075E+04            | 1.625E-02 | 8.879E+00    |
| 2175 | 3.075E+04            | 1.546E-02 | 8.446E+00    |
| 2176 | 3.075E+04            | 1.471E-02 | 8.034E+00    |
| 2177 | 3.075E+04            | 1.399E-02 | 7.642E+00    |
| 2178 | 3.075E+04            | 1.331E-02 | 7.270E+00    |
| 2179 | 3.075E+04            | 1.266E-02 | 6.915E+00    |
| 2180 | 3.075E+04            | 1.204E-02 | 6.578E+00    |
| 2181 | 3.075E+04            | 1.145E-02 | 6.257E+00    |
| 2182 | 3.075E+04            | 1.089E-02 | 5.952E+00    |
| 2183 | 3.075E+04            | 1.036E-02 | 5.662E+00    |
| 2184 | 3.075E+04            | 9.858E-03 | 5.385E+00    |
| 2185 | 3.075E+04            | 9.377E-03 | 5.123E+00    |
| 2186 | 3.075E+04            | 8.920E-03 | 4.873E+00    |
| 2187 | 3.075E+04            | 8.485E-03 | 4.635E+00    |
| 2188 | 3.075E+04            | 8.071E-03 | 4.409E+00    |
| 2189 | 3.075E+04            | 7.677E-03 | 4.194E+00    |
| 2190 | 3.075E+04            | 7.303E-03 | 3.990E+00    |
| 2191 | 3.075E+04            | 6.947E-03 | 3.795E+00    |
| 2192 | 3.075E+04            | 6.608E-03 | 3.610E+00    |
| 2193 | 3.075E+04            | 6.286E-03 | 3.434E+00    |
| 2194 | 3.075E+04            | 5.979E-03 | 3.266E+00    |
| 2195 | 3.075E+04            | 5.688E-03 | 3.107E+00    |
| 2196 | 3.075E+04            | 5.410E-03 | 2.956E+00    |
| 2197 | 3.075E+04            | 5.146E-03 | 2.811E+00    |
| 2198 | 3.075E+04            | 4.895E-03 | 2.674E+00    |
| 2199 | 3.075E+04            | 4.657E-03 | 2.544E+00    |
| 2200 | 3.075E+04            | 4.430E-03 | 2.420E+00    |
| 2201 | 3.075E+04            | 4.213E-03 | 2.302E+00    |
| 2202 | 3.075E+04            | 4.008E-03 | 2.190E+00    |

Table D-50. Emission Rate of NMOCs from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA4.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1870.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume

=====
                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974   Current Year : 2004   Closure Year: 2003
Capacity : 30752 Mg
Average Acceptance Rate Required from
          Current Year to Closure Year : 5271.79 Mg/year

=====
                          Model Results
=====
Year      Refuse In Place (Mg)      NMOC Emission Rate
          (Mg/yr)                (Cubic m/yr)
=====
1975      3.075E+03                    2.738E-01      7.638E+01
1976      6.150E+03                    5.342E-01      1.490E+02
1977      9.226E+03                    7.819E-01      2.181E+02
1978      1.230E+04                    1.018E+00      2.839E+02
1979      1.538E+04                    1.242E+00      3.464E+02
1980      1.845E+04                    1.455E+00      4.059E+02
1981      2.153E+04                    1.658E+00      4.625E+02
1982      2.460E+04                    1.851E+00      5.163E+02
1983      2.768E+04                    2.034E+00      5.675E+02
1984      3.075E+04                    2.209E+00      6.162E+02
1985      3.075E+04                    2.101E+00      5.861E+02
1986      3.075E+04                    1.998E+00      5.575E+02
1987      3.075E+04                    1.901E+00      5.303E+02
1988      3.075E+04                    1.808E+00      5.045E+02
1989      3.075E+04                    1.720E+00      4.799E+02
1990      3.075E+04                    1.636E+00      4.565E+02
1991      3.075E+04                    1.556E+00      4.342E+02
1992      3.075E+04                    1.481E+00      4.130E+02
1993      3.075E+04                    1.408E+00      3.929E+02
1994      3.075E+04                    1.340E+00      3.737E+02
1995      3.075E+04                    1.274E+00      3.555E+02
1996      3.075E+04                    1.212E+00      3.382E+02
1997      3.075E+04                    1.153E+00      3.217E+02
1998      3.075E+04                    1.097E+00      3.060E+02
1999      3.075E+04                    1.043E+00      2.911E+02
2000      3.075E+04                    9.924E-01      2.769E+02
2001      3.075E+04                    9.440E-01      2.634E+02
2002      3.075E+04                    8.980E-01      2.505E+02
2003      3.075E+04                    8.542E-01      2.383E+02
2004      3.075E+04                    8.125E-01      2.267E+02
2005      3.075E+04                    7.729E-01      2.156E+02
2006      3.075E+04                    7.352E-01      2.051E+02
2007      3.075E+04                    6.993E-01      1.951E+02
2008      3.075E+04                    6.652E-01      1.856E+02
2009      3.075E+04                    6.328E-01      1.765E+02
2010      3.075E+04                    6.019E-01      1.679E+02
2011      3.075E+04                    5.726E-01      1.597E+02
2012      3.075E+04                    5.447E-01      1.519E+02
2013      3.075E+04                    5.181E-01      1.445E+02
2014      3.075E+04                    4.928E-01      1.375E+02
2015      3.075E+04                    4.688E-01      1.308E+02
2016      3.075E+04                    4.459E-01      1.244E+02
2017      3.075E+04                    4.242E-01      1.183E+02
2018      3.075E+04                    4.035E-01      1.126E+02
2019      3.075E+04                    3.838E-01      1.071E+02
2020      3.075E+04                    3.651E-01      1.019E+02

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continued

Table D-50. Emission Rate of NMOCs from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2021 | 3.075E+04            | 3.473E-01 | 9.689E+01    |
| 2022 | 3.075E+04            | 3.303E-01 | 9.216E+01    |
| 2023 | 3.075E+04            | 3.142E-01 | 8.767E+01    |
| 2024 | 3.075E+04            | 2.989E-01 | 8.339E+01    |
| 2025 | 3.075E+04            | 2.843E-01 | 7.932E+01    |
| 2026 | 3.075E+04            | 2.705E-01 | 7.546E+01    |
| 2027 | 3.075E+04            | 2.573E-01 | 7.178E+01    |
| 2028 | 3.075E+04            | 2.447E-01 | 6.827E+01    |
| 2029 | 3.075E+04            | 2.328E-01 | 6.494E+01    |
| 2030 | 3.075E+04            | 2.214E-01 | 6.178E+01    |
| 2031 | 3.075E+04            | 2.106E-01 | 5.876E+01    |
| 2032 | 3.075E+04            | 2.004E-01 | 5.590E+01    |
| 2033 | 3.075E+04            | 1.906E-01 | 5.317E+01    |
| 2034 | 3.075E+04            | 1.813E-01 | 5.058E+01    |
| 2035 | 3.075E+04            | 1.725E-01 | 4.811E+01    |
| 2036 | 3.075E+04            | 1.640E-01 | 4.577E+01    |
| 2037 | 3.075E+04            | 1.560E-01 | 4.353E+01    |
| 2038 | 3.075E+04            | 1.484E-01 | 4.141E+01    |
| 2039 | 3.075E+04            | 1.412E-01 | 3.939E+01    |
| 2040 | 3.075E+04            | 1.343E-01 | 3.747E+01    |
| 2041 | 3.075E+04            | 1.278E-01 | 3.564E+01    |
| 2042 | 3.075E+04            | 1.215E-01 | 3.390E+01    |
| 2043 | 3.075E+04            | 1.156E-01 | 3.225E+01    |
| 2044 | 3.075E+04            | 1.100E-01 | 3.068E+01    |
| 2045 | 3.075E+04            | 1.046E-01 | 2.918E+01    |
| 2046 | 3.075E+04            | 9.950E-02 | 2.776E+01    |
| 2047 | 3.075E+04            | 9.465E-02 | 2.640E+01    |
| 2048 | 3.075E+04            | 9.003E-02 | 2.512E+01    |
| 2049 | 3.075E+04            | 8.564E-02 | 2.389E+01    |
| 2050 | 3.075E+04            | 8.146E-02 | 2.273E+01    |
| 2051 | 3.075E+04            | 7.749E-02 | 2.162E+01    |
| 2052 | 3.075E+04            | 7.371E-02 | 2.056E+01    |
| 2053 | 3.075E+04            | 7.012E-02 | 1.956E+01    |
| 2054 | 3.075E+04            | 6.670E-02 | 1.861E+01    |
| 2055 | 3.075E+04            | 6.344E-02 | 1.770E+01    |
| 2056 | 3.075E+04            | 6.035E-02 | 1.684E+01    |
| 2057 | 3.075E+04            | 5.741E-02 | 1.602E+01    |
| 2058 | 3.075E+04            | 5.461E-02 | 1.523E+01    |
| 2059 | 3.075E+04            | 5.194E-02 | 1.449E+01    |
| 2060 | 3.075E+04            | 4.941E-02 | 1.378E+01    |
| 2061 | 3.075E+04            | 4.700E-02 | 1.311E+01    |
| 2062 | 3.075E+04            | 4.471E-02 | 1.247E+01    |
| 2063 | 3.075E+04            | 4.253E-02 | 1.186E+01    |
| 2064 | 3.075E+04            | 4.045E-02 | 1.129E+01    |
| 2065 | 3.075E+04            | 3.848E-02 | 1.074E+01    |
| 2066 | 3.075E+04            | 3.660E-02 | 1.021E+01    |
| 2067 | 3.075E+04            | 3.482E-02 | 9.714E+00    |
| 2068 | 3.075E+04            | 3.312E-02 | 9.240E+00    |
| 2069 | 3.075E+04            | 3.151E-02 | 8.789E+00    |
| 2070 | 3.075E+04            | 2.997E-02 | 8.361E+00    |
| 2071 | 3.075E+04            | 2.851E-02 | 7.953E+00    |
| 2072 | 3.075E+04            | 2.712E-02 | 7.565E+00    |
| 2073 | 3.075E+04            | 2.579E-02 | 7.196E+00    |
| 2074 | 3.075E+04            | 2.454E-02 | 6.845E+00    |
| 2075 | 3.075E+04            | 2.334E-02 | 6.511E+00    |
| 2076 | 3.075E+04            | 2.220E-02 | 6.194E+00    |
| 2077 | 3.075E+04            | 2.112E-02 | 5.892E+00    |
| 2078 | 3.075E+04            | 2.009E-02 | 5.604E+00    |
| 2079 | 3.075E+04            | 1.911E-02 | 5.331E+00    |
| 2080 | 3.075E+04            | 1.818E-02 | 5.071E+00    |
| 2081 | 3.075E+04            | 1.729E-02 | 4.824E+00    |
| 2082 | 3.075E+04            | 1.645E-02 | 4.588E+00    |
| 2083 | 3.075E+04            | 1.564E-02 | 4.365E+00    |
| 2084 | 3.075E+04            | 1.488E-02 | 4.152E+00    |
| 2085 | 3.075E+04            | 1.416E-02 | 3.949E+00    |
| 2086 | 3.075E+04            | 1.347E-02 | 3.757E+00    |
| 2087 | 3.075E+04            | 1.281E-02 | 3.573E+00    |
| 2088 | 3.075E+04            | 1.218E-02 | 3.399E+00    |
| 2089 | 3.075E+04            | 1.159E-02 | 3.233E+00    |
| 2090 | 3.075E+04            | 1.102E-02 | 3.076E+00    |

continued



Table D-50. Emission Rate of NMOCs from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2091 | 3.075E+04            | 1.049E-02 | 2.926E+00    |
| 2092 | 3.075E+04            | 9.976E-03 | 2.783E+00    |
| 2093 | 3.075E+04            | 9.489E-03 | 2.647E+00    |
| 2094 | 3.075E+04            | 9.026E-03 | 2.518E+00    |
| 2095 | 3.075E+04            | 8.586E-03 | 2.395E+00    |
| 2096 | 3.075E+04            | 8.167E-03 | 2.279E+00    |
| 2097 | 3.075E+04            | 7.769E-03 | 2.167E+00    |
| 2098 | 3.075E+04            | 7.390E-03 | 2.062E+00    |
| 2099 | 3.075E+04            | 7.030E-03 | 1.961E+00    |
| 2100 | 3.075E+04            | 6.687E-03 | 1.866E+00    |
| 2101 | 3.075E+04            | 6.361E-03 | 1.775E+00    |
| 2102 | 3.075E+04            | 6.051E-03 | 1.688E+00    |
| 2103 | 3.075E+04            | 5.755E-03 | 1.606E+00    |
| 2104 | 3.075E+04            | 5.475E-03 | 1.527E+00    |
| 2105 | 3.075E+04            | 5.208E-03 | 1.453E+00    |
| 2106 | 3.075E+04            | 4.954E-03 | 1.382E+00    |
| 2107 | 3.075E+04            | 4.712E-03 | 1.315E+00    |
| 2108 | 3.075E+04            | 4.482E-03 | 1.250E+00    |
| 2109 | 3.075E+04            | 4.264E-03 | 1.190E+00    |
| 2110 | 3.075E+04            | 4.056E-03 | 1.131E+00    |
| 2111 | 3.075E+04            | 3.858E-03 | 1.076E+00    |
| 2112 | 3.075E+04            | 3.670E-03 | 1.024E+00    |
| 2113 | 3.075E+04            | 3.491E-03 | 9.739E-01    |
| 2114 | 3.075E+04            | 3.321E-03 | 9.264E-01    |
| 2115 | 3.075E+04            | 3.159E-03 | 8.812E-01    |
| 2116 | 3.075E+04            | 3.005E-03 | 8.382E-01    |
| 2117 | 3.075E+04            | 2.858E-03 | 7.973E-01    |
| 2118 | 3.075E+04            | 2.719E-03 | 7.585E-01    |
| 2119 | 3.075E+04            | 2.586E-03 | 7.215E-01    |
| 2120 | 3.075E+04            | 2.460E-03 | 6.863E-01    |
| 2121 | 3.075E+04            | 2.340E-03 | 6.528E-01    |
| 2122 | 3.075E+04            | 2.226E-03 | 6.210E-01    |
| 2123 | 3.075E+04            | 2.117E-03 | 5.907E-01    |
| 2124 | 3.075E+04            | 2.014E-03 | 5.619E-01    |
| 2125 | 3.075E+04            | 1.916E-03 | 5.345E-01    |
| 2126 | 3.075E+04            | 1.822E-03 | 5.084E-01    |
| 2127 | 3.075E+04            | 1.734E-03 | 4.836E-01    |
| 2128 | 3.075E+04            | 1.649E-03 | 4.600E-01    |
| 2129 | 3.075E+04            | 1.569E-03 | 4.376E-01    |
| 2130 | 3.075E+04            | 1.492E-03 | 4.163E-01    |
| 2131 | 3.075E+04            | 1.419E-03 | 3.960E-01    |
| 2132 | 3.075E+04            | 1.350E-03 | 3.766E-01    |
| 2133 | 3.075E+04            | 1.284E-03 | 3.583E-01    |
| 2134 | 3.075E+04            | 1.222E-03 | 3.408E-01    |
| 2135 | 3.075E+04            | 1.162E-03 | 3.242E-01    |
| 2136 | 3.075E+04            | 1.105E-03 | 3.084E-01    |
| 2137 | 3.075E+04            | 1.051E-03 | 2.933E-01    |
| 2138 | 3.075E+04            | 1.000E-03 | 2.790E-01    |
| 2139 | 3.075E+04            | 9.514E-04 | 2.654E-01    |
| 2140 | 3.075E+04            | 9.050E-04 | 2.525E-01    |
| 2141 | 3.075E+04            | 8.608E-04 | 2.402E-01    |
| 2142 | 3.075E+04            | 8.189E-04 | 2.284E-01    |
| 2143 | 3.075E+04            | 7.789E-04 | 2.173E-01    |
| 2144 | 3.075E+04            | 7.409E-04 | 2.067E-01    |
| 2145 | 3.075E+04            | 7.048E-04 | 1.966E-01    |
| 2146 | 3.075E+04            | 6.704E-04 | 1.870E-01    |
| 2147 | 3.075E+04            | 6.377E-04 | 1.779E-01    |
| 2148 | 3.075E+04            | 6.066E-04 | 1.692E-01    |
| 2149 | 3.075E+04            | 5.770E-04 | 1.610E-01    |
| 2150 | 3.075E+04            | 5.489E-04 | 1.531E-01    |
| 2151 | 3.075E+04            | 5.221E-04 | 1.457E-01    |
| 2152 | 3.075E+04            | 4.967E-04 | 1.386E-01    |
| 2153 | 3.075E+04            | 4.724E-04 | 1.318E-01    |
| 2154 | 3.075E+04            | 4.494E-04 | 1.254E-01    |
| 2155 | 3.075E+04            | 4.275E-04 | 1.193E-01    |
| 2156 | 3.075E+04            | 4.066E-04 | 1.134E-01    |
| 2157 | 3.075E+04            | 3.868E-04 | 1.079E-01    |
| 2158 | 3.075E+04            | 3.679E-04 | 1.026E-01    |
| 2159 | 3.075E+04            | 3.500E-04 | 9.764E-02    |
| 2160 | 3.075E+04            | 3.329E-04 | 9.288E-02    |

continued

Table D-50. Emission Rate of NMOCs from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2161 | 3.075E+04            | 3.167E-04 | 8.835E-02    |
| 2162 | 3.075E+04            | 3.012E-04 | 8.404E-02    |
| 2163 | 3.075E+04            | 2.865E-04 | 7.994E-02    |
| 2164 | 3.075E+04            | 2.726E-04 | 7.604E-02    |
| 2165 | 3.075E+04            | 2.593E-04 | 7.233E-02    |
| 2166 | 3.075E+04            | 2.466E-04 | 6.881E-02    |
| 2167 | 3.075E+04            | 2.346E-04 | 6.545E-02    |
| 2168 | 3.075E+04            | 2.232E-04 | 6.226E-02    |
| 2169 | 3.075E+04            | 2.123E-04 | 5.922E-02    |
| 2170 | 3.075E+04            | 2.019E-04 | 5.633E-02    |
| 2171 | 3.075E+04            | 1.921E-04 | 5.359E-02    |
| 2172 | 3.075E+04            | 1.827E-04 | 5.097E-02    |
| 2173 | 3.075E+04            | 1.738E-04 | 4.849E-02    |
| 2174 | 3.075E+04            | 1.653E-04 | 4.612E-02    |
| 2175 | 3.075E+04            | 1.573E-04 | 4.387E-02    |
| 2176 | 3.075E+04            | 1.496E-04 | 4.173E-02    |
| 2177 | 3.075E+04            | 1.423E-04 | 3.970E-02    |
| 2178 | 3.075E+04            | 1.354E-04 | 3.776E-02    |
| 2179 | 3.075E+04            | 1.288E-04 | 3.592E-02    |
| 2180 | 3.075E+04            | 1.225E-04 | 3.417E-02    |
| 2181 | 3.075E+04            | 1.165E-04 | 3.250E-02    |
| 2182 | 3.075E+04            | 1.108E-04 | 3.092E-02    |
| 2183 | 3.075E+04            | 1.054E-04 | 2.941E-02    |
| 2184 | 3.075E+04            | 1.003E-04 | 2.797E-02    |
| 2185 | 3.075E+04            | 9.538E-05 | 2.661E-02    |
| 2186 | 3.075E+04            | 9.073E-05 | 2.531E-02    |
| 2187 | 3.075E+04            | 8.631E-05 | 2.408E-02    |
| 2188 | 3.075E+04            | 8.210E-05 | 2.290E-02    |
| 2189 | 3.075E+04            | 7.809E-05 | 2.179E-02    |
| 2190 | 3.075E+04            | 7.428E-05 | 2.072E-02    |
| 2191 | 3.075E+04            | 7.066E-05 | 1.971E-02    |
| 2192 | 3.075E+04            | 6.722E-05 | 1.875E-02    |
| 2193 | 3.075E+04            | 6.394E-05 | 1.784E-02    |
| 2194 | 3.075E+04            | 6.082E-05 | 1.697E-02    |
| 2195 | 3.075E+04            | 5.785E-05 | 1.614E-02    |
| 2196 | 3.075E+04            | 5.503E-05 | 1.535E-02    |
| 2197 | 3.075E+04            | 5.235E-05 | 1.460E-02    |
| 2198 | 3.075E+04            | 4.979E-05 | 1.389E-02    |
| 2199 | 3.075E+04            | 4.737E-05 | 1.321E-02    |
| 2200 | 3.075E+04            | 4.506E-05 | 1.257E-02    |
| 2201 | 3.075E+04            | 4.286E-05 | 1.196E-02    |
| 2202 | 3.075E+04            | 4.077E-05 | 1.137E-02    |

Table D-51. Emission Rate of 1,1,1-Trichloroethane from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA4.PRM

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Model Parameters

=====

Lo : 170.00 m<sup>3</sup> / Mg  
k : 0.0500 l/yr  
NMOC : 1870.00 ppmv  
Methane : 64.0000 % volume  
Carbon Dioxide : 36.0000 % volume  
Air Pollutant : 1,1,1-Trichloroethane (HAP)  
Molecular Wt = 133.41      Concentration =      0.050000 ppmV

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Landfill Parameters

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Landfill type : Co-Disposal  
Year Opened : 1974      Current Year : 2004      Closure Year: 2003  
Capacity : 30752 Mg  
Average Acceptance Rate Required from  
Current Year to Closure Year : 5271.79 Mg/year

=====

Model Results

=====

| Year | Refuse In Place (Mg) | 1,1,1-Trichloroethane (HAP) Emission Rate (Mg/yr) | (Cubic m/yr) |
|------|----------------------|---|--------------|
| 1975 | 3.075E+03            | 1.133E-05   | 2.042E-03    |
| 1976 | 6.150E+03            | 2.211E-05   | 3.985E-03    |
| 1977 | 9.226E+03            | 3.236E-05   | 5.832E-03    |
| 1978 | 1.230E+04            | 4.212E-05   | 7.590E-03    |
| 1979 | 1.538E+04            | 5.139E-05   | 9.262E-03    |
| 1980 | 1.845E+04            | 6.022E-05   | 1.085E-02    |
| 1981 | 2.153E+04            | 6.861E-05   | 1.237E-02    |
| 1982 | 2.460E+04            | 7.660E-05   | 1.380E-02    |
| 1983 | 2.768E+04            | 8.420E-05   | 1.517E-02    |
| 1984 | 3.075E+04            | 9.142E-05   | 1.648E-02    |
| 1985 | 3.075E+04            | 8.696E-05   | 1.567E-02    |
| 1986 | 3.075E+04            | 8.272E-05   | 1.491E-02    |
| 1987 | 3.075E+04            | 7.869E-05   | 1.418E-02    |
| 1988 | 3.075E+04            | 7.485E-05   | 1.349E-02    |
| 1989 | 3.075E+04            | 7.120E-05   | 1.283E-02    |
| 1990 | 3.075E+04            | 6.773E-05   | 1.221E-02    |
| 1991 | 3.075E+04            | 6.442E-05   | 1.161E-02    |
| 1992 | 3.075E+04            | 6.128E-05   | 1.104E-02    |
| 1993 | 3.075E+04            | 5.829E-05   | 1.051E-02    |
| 1994 | 3.075E+04            | 5.545E-05   | 9.993E-03    |
| 1995 | 3.075E+04            | 5.274E-05   | 9.505E-03    |
| 1996 | 3.075E+04            | 5.017E-05   | 9.042E-03    |
| 1997 | 3.075E+04            | 4.773E-05   | 8.601E-03    |
| 1998 | 3.075E+04            | 4.540E-05   | 8.181E-03    |
| 1999 | 3.075E+04            | 4.318E-05   | 7.782E-03    |
| 2000 | 3.075E+04            | 4.108E-05   | 7.403E-03    |
| 2001 | 3.075E+04            | 3.907E-05   | 7.042E-03    |
| 2002 | 3.075E+04            | 3.717E-05   | 6.698E-03    |
| 2003 | 3.075E+04            | 3.536E-05   | 6.372E-03    |
| 2004 | 3.075E+04            | 3.363E-05   | 6.061E-03    |
| 2005 | 3.075E+04            | 3.199E-05   | 5.765E-03    |
| 2006 | 3.075E+04            | 3.043E-05   | 5.484E-03    |
| 2007 | 3.075E+04            | 2.895E-05   | 5.217E-03    |
| 2008 | 3.075E+04            | 2.754E-05   | 4.962E-03    |
| 2009 | 3.075E+04            | 2.619E-05   | 4.720E-03    |
| 2010 | 3.075E+04            | 2.491E-05   | 4.490E-03    |
| 2011 | 3.075E+04            | 2.370E-05   | 4.271E-03    |
| 2012 | 3.075E+04            | 2.254E-05   | 4.063E-03    |
| 2013 | 3.075E+04            | 2.144E-05   | 3.865E-03    |
| 2014 | 3.075E+04            | 2.040E-05   | 3.676E-03    |
| 2015 | 3.075E+04            | 1.940E-05   | 3.497E-03    |
| 2016 | 3.075E+04            | 1.846E-05   | 3.326E-03    |
| 2017 | 3.075E+04            | 1.756E-05   | 3.164E-03    |
| 2018 | 3.075E+04            | 1.670E-05   | 3.010E-03    |

continued

Table D-51. Emission Rate of 1,1,1-Trichloroethane from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.075E+04            | 1.589E-05 | 2.863E-03    |
| 2020 | 3.075E+04            | 1.511E-05 | 2.723E-03    |
| 2021 | 3.075E+04            | 1.437E-05 | 2.591E-03    |
| 2022 | 3.075E+04            | 1.367E-05 | 2.464E-03    |
| 2023 | 3.075E+04            | 1.301E-05 | 2.344E-03    |
| 2024 | 3.075E+04            | 1.237E-05 | 2.230E-03    |
| 2025 | 3.075E+04            | 1.177E-05 | 2.121E-03    |
| 2026 | 3.075E+04            | 1.119E-05 | 2.018E-03    |
| 2027 | 3.075E+04            | 1.065E-05 | 1.919E-03    |
| 2028 | 3.075E+04            | 1.013E-05 | 1.826E-03    |
| 2029 | 3.075E+04            | 9.636E-06 | 1.736E-03    |
| 2030 | 3.075E+04            | 9.166E-06 | 1.652E-03    |
| 2031 | 3.075E+04            | 8.719E-06 | 1.571E-03    |
| 2032 | 3.075E+04            | 8.293E-06 | 1.495E-03    |
| 2033 | 3.075E+04            | 7.889E-06 | 1.422E-03    |
| 2034 | 3.075E+04            | 7.504E-06 | 1.352E-03    |
| 2035 | 3.075E+04            | 7.138E-06 | 1.286E-03    |
| 2036 | 3.075E+04            | 6.790E-06 | 1.224E-03    |
| 2037 | 3.075E+04            | 6.459E-06 | 1.164E-03    |
| 2038 | 3.075E+04            | 6.144E-06 | 1.107E-03    |
| 2039 | 3.075E+04            | 5.844E-06 | 1.053E-03    |
| 2040 | 3.075E+04            | 5.559E-06 | 1.002E-03    |
| 2041 | 3.075E+04            | 5.288E-06 | 9.530E-04    |
| 2042 | 3.075E+04            | 5.030E-06 | 9.065E-04    |
| 2043 | 3.075E+04            | 4.785E-06 | 8.623E-04    |
| 2044 | 3.075E+04            | 4.552E-06 | 8.203E-04    |
| 2045 | 3.075E+04            | 4.330E-06 | 7.803E-04    |
| 2046 | 3.075E+04            | 4.118E-06 | 7.422E-04    |
| 2047 | 3.075E+04            | 3.918E-06 | 7.060E-04    |
| 2048 | 3.075E+04            | 3.726E-06 | 6.716E-04    |
| 2049 | 3.075E+04            | 3.545E-06 | 6.388E-04    |
| 2050 | 3.075E+04            | 3.372E-06 | 6.077E-04    |
| 2051 | 3.075E+04            | 3.207E-06 | 5.780E-04    |
| 2052 | 3.075E+04            | 3.051E-06 | 5.498E-04    |
| 2053 | 3.075E+04            | 2.902E-06 | 5.230E-04    |
| 2054 | 3.075E+04            | 2.761E-06 | 4.975E-04    |
| 2055 | 3.075E+04            | 2.626E-06 | 4.732E-04    |
| 2056 | 3.075E+04            | 2.498E-06 | 4.502E-04    |
| 2057 | 3.075E+04            | 2.376E-06 | 4.282E-04    |
| 2058 | 3.075E+04            | 2.260E-06 | 4.073E-04    |
| 2059 | 3.075E+04            | 2.150E-06 | 3.875E-04    |
| 2060 | 3.075E+04            | 2.045E-06 | 3.686E-04    |
| 2061 | 3.075E+04            | 1.945E-06 | 3.506E-04    |
| 2062 | 3.075E+04            | 1.851E-06 | 3.335E-04    |
| 2063 | 3.075E+04            | 1.760E-06 | 3.172E-04    |
| 2064 | 3.075E+04            | 1.674E-06 | 3.018E-04    |
| 2065 | 3.075E+04            | 1.593E-06 | 2.870E-04    |
| 2066 | 3.075E+04            | 1.515E-06 | 2.730E-04    |
| 2067 | 3.075E+04            | 1.441E-06 | 2.597E-04    |
| 2068 | 3.075E+04            | 1.371E-06 | 2.471E-04    |
| 2069 | 3.075E+04            | 1.304E-06 | 2.350E-04    |
| 2070 | 3.075E+04            | 1.240E-06 | 2.235E-04    |
| 2071 | 3.075E+04            | 1.180E-06 | 2.126E-04    |
| 2072 | 3.075E+04            | 1.122E-06 | 2.023E-04    |
| 2073 | 3.075E+04            | 1.068E-06 | 1.924E-04    |
| 2074 | 3.075E+04            | 1.016E-06 | 1.830E-04    |
| 2075 | 3.075E+04            | 9.661E-07 | 1.741E-04    |
| 2076 | 3.075E+04            | 9.189E-07 | 1.656E-04    |
| 2077 | 3.075E+04            | 8.741E-07 | 1.575E-04    |
| 2078 | 3.075E+04            | 8.315E-07 | 1.498E-04    |
| 2079 | 3.075E+04            | 7.909E-07 | 1.425E-04    |
| 2080 | 3.075E+04            | 7.524E-07 | 1.356E-04    |
| 2081 | 3.075E+04            | 7.157E-07 | 1.290E-04    |
| 2082 | 3.075E+04            | 6.808E-07 | 1.227E-04    |
| 2083 | 3.075E+04            | 6.476E-07 | 1.167E-04    |
| 2084 | 3.075E+04            | 6.160E-07 | 1.110E-04    |
| 2085 | 3.075E+04            | 5.859E-07 | 1.056E-04    |
| 2086 | 3.075E+04            | 5.574E-07 | 1.004E-04    |
| 2087 | 3.075E+04            | 5.302E-07 | 9.555E-05    |
| 2088 | 3.075E+04            | 5.043E-07 | 9.089E-05    |

continued

Table D-51. Emission Rate of 1,1,1-Trichloroethane from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.075E+04            | 4.797E-07 | 8.645E-05    |
| 2090 | 3.075E+04            | 4.563E-07 | 8.224E-05    |
| 2091 | 3.075E+04            | 4.341E-07 | 7.823E-05    |
| 2092 | 3.075E+04            | 4.129E-07 | 7.441E-05    |
| 2093 | 3.075E+04            | 3.928E-07 | 7.078E-05    |
| 2094 | 3.075E+04            | 3.736E-07 | 6.733E-05    |
| 2095 | 3.075E+04            | 3.554E-07 | 6.405E-05    |
| 2096 | 3.075E+04            | 3.381E-07 | 6.092E-05    |
| 2097 | 3.075E+04            | 3.216E-07 | 5.795E-05    |
| 2098 | 3.075E+04            | 3.059E-07 | 5.513E-05    |
| 2099 | 3.075E+04            | 2.910E-07 | 5.244E-05    |
| 2100 | 3.075E+04            | 2.768E-07 | 4.988E-05    |
| 2101 | 3.075E+04            | 2.633E-07 | 4.745E-05    |
| 2102 | 3.075E+04            | 2.504E-07 | 4.513E-05    |
| 2103 | 3.075E+04            | 2.382E-07 | 4.293E-05    |
| 2104 | 3.075E+04            | 2.266E-07 | 4.084E-05    |
| 2105 | 3.075E+04            | 2.156E-07 | 3.885E-05    |
| 2106 | 3.075E+04            | 2.050E-07 | 3.695E-05    |
| 2107 | 3.075E+04            | 1.950E-07 | 3.515E-05    |
| 2108 | 3.075E+04            | 1.855E-07 | 3.344E-05    |
| 2109 | 3.075E+04            | 1.765E-07 | 3.180E-05    |
| 2110 | 3.075E+04            | 1.679E-07 | 3.025E-05    |
| 2111 | 3.075E+04            | 1.597E-07 | 2.878E-05    |
| 2112 | 3.075E+04            | 1.519E-07 | 2.737E-05    |
| 2113 | 3.075E+04            | 1.445E-07 | 2.604E-05    |
| 2114 | 3.075E+04            | 1.374E-07 | 2.477E-05    |
| 2115 | 3.075E+04            | 1.307E-07 | 2.356E-05    |
| 2116 | 3.075E+04            | 1.244E-07 | 2.241E-05    |
| 2117 | 3.075E+04            | 1.183E-07 | 2.132E-05    |
| 2118 | 3.075E+04            | 1.125E-07 | 2.028E-05    |
| 2119 | 3.075E+04            | 1.070E-07 | 1.929E-05    |
| 2120 | 3.075E+04            | 1.018E-07 | 1.835E-05    |
| 2121 | 3.075E+04            | 9.686E-08 | 1.745E-05    |
| 2122 | 3.075E+04            | 9.213E-08 | 1.660E-05    |
| 2123 | 3.075E+04            | 8.764E-08 | 1.579E-05    |
| 2124 | 3.075E+04            | 8.336E-08 | 1.502E-05    |
| 2125 | 3.075E+04            | 7.930E-08 | 1.429E-05    |
| 2126 | 3.075E+04            | 7.543E-08 | 1.359E-05    |
| 2127 | 3.075E+04            | 7.175E-08 | 1.293E-05    |
| 2128 | 3.075E+04            | 6.825E-08 | 1.230E-05    |
| 2129 | 3.075E+04            | 6.492E-08 | 1.170E-05    |
| 2130 | 3.075E+04            | 6.176E-08 | 1.113E-05    |
| 2131 | 3.075E+04            | 5.875E-08 | 1.059E-05    |
| 2132 | 3.075E+04            | 5.588E-08 | 1.007E-05    |
| 2133 | 3.075E+04            | 5.316E-08 | 9.579E-06    |
| 2134 | 3.075E+04            | 5.056E-08 | 9.112E-06    |
| 2135 | 3.075E+04            | 4.810E-08 | 8.668E-06    |
| 2136 | 3.075E+04            | 4.575E-08 | 8.245E-06    |
| 2137 | 3.075E+04            | 4.352E-08 | 7.843E-06    |
| 2138 | 3.075E+04            | 4.140E-08 | 7.460E-06    |
| 2139 | 3.075E+04            | 3.938E-08 | 7.097E-06    |
| 2140 | 3.075E+04            | 3.746E-08 | 6.751E-06    |
| 2141 | 3.075E+04            | 3.563E-08 | 6.421E-06    |
| 2142 | 3.075E+04            | 3.389E-08 | 6.108E-06    |
| 2143 | 3.075E+04            | 3.224E-08 | 5.810E-06    |
| 2144 | 3.075E+04            | 3.067E-08 | 5.527E-06    |
| 2145 | 3.075E+04            | 2.917E-08 | 5.257E-06    |
| 2146 | 3.075E+04            | 2.775E-08 | 5.001E-06    |
| 2147 | 3.075E+04            | 2.640E-08 | 4.757E-06    |
| 2148 | 3.075E+04            | 2.511E-08 | 4.525E-06    |
| 2149 | 3.075E+04            | 2.388E-08 | 4.304E-06    |
| 2150 | 3.075E+04            | 2.272E-08 | 4.094E-06    |
| 2151 | 3.075E+04            | 2.161E-08 | 3.895E-06    |
| 2152 | 3.075E+04            | 2.056E-08 | 3.705E-06    |
| 2153 | 3.075E+04            | 1.955E-08 | 3.524E-06    |
| 2154 | 3.075E+04            | 1.860E-08 | 3.352E-06    |
| 2155 | 3.075E+04            | 1.769E-08 | 3.189E-06    |
| 2156 | 3.075E+04            | 1.683E-08 | 3.033E-06    |
| 2157 | 3.075E+04            | 1.601E-08 | 2.885E-06    |
| 2158 | 3.075E+04            | 1.523E-08 | 2.745E-06    |

continued

Table D-51. Emission Rate of 1,1,1-Trichloroethane from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.075E+04            | 1.449E-08 | 2.611E-06    |
| 2160 | 3.075E+04            | 1.378E-08 | 2.483E-06    |
| 2161 | 3.075E+04            | 1.311E-08 | 2.362E-06    |
| 2162 | 3.075E+04            | 1.247E-08 | 2.247E-06    |
| 2163 | 3.075E+04            | 1.186E-08 | 2.137E-06    |
| 2164 | 3.075E+04            | 1.128E-08 | 2.033E-06    |
| 2165 | 3.075E+04            | 1.073E-08 | 1.934E-06    |
| 2166 | 3.075E+04            | 1.021E-08 | 1.840E-06    |
| 2167 | 3.075E+04            | 9.711E-09 | 1.750E-06    |
| 2168 | 3.075E+04            | 9.237E-09 | 1.665E-06    |
| 2169 | 3.075E+04            | 8.787E-09 | 1.583E-06    |
| 2170 | 3.075E+04            | 8.358E-09 | 1.506E-06    |
| 2171 | 3.075E+04            | 7.950E-09 | 1.433E-06    |
| 2172 | 3.075E+04            | 7.563E-09 | 1.363E-06    |
| 2173 | 3.075E+04            | 7.194E-09 | 1.296E-06    |
| 2174 | 3.075E+04            | 6.843E-09 | 1.233E-06    |
| 2175 | 3.075E+04            | 6.509E-09 | 1.173E-06    |
| 2176 | 3.075E+04            | 6.192E-09 | 1.116E-06    |
| 2177 | 3.075E+04            | 5.890E-09 | 1.061E-06    |
| 2178 | 3.075E+04            | 5.603E-09 | 1.010E-06    |
| 2179 | 3.075E+04            | 5.329E-09 | 9.604E-07    |
| 2180 | 3.075E+04            | 5.069E-09 | 9.136E-07    |
| 2181 | 3.075E+04            | 4.822E-09 | 8.690E-07    |
| 2182 | 3.075E+04            | 4.587E-09 | 8.266E-07    |
| 2183 | 3.075E+04            | 4.363E-09 | 7.863E-07    |
| 2184 | 3.075E+04            | 4.150E-09 | 7.480E-07    |
| 2185 | 3.075E+04            | 3.948E-09 | 7.115E-07    |
| 2186 | 3.075E+04            | 3.755E-09 | 6.768E-07    |
| 2187 | 3.075E+04            | 3.572E-09 | 6.438E-07    |
| 2188 | 3.075E+04            | 3.398E-09 | 6.124E-07    |
| 2189 | 3.075E+04            | 3.232E-09 | 5.825E-07    |
| 2190 | 3.075E+04            | 3.075E-09 | 5.541E-07    |
| 2191 | 3.075E+04            | 2.925E-09 | 5.271E-07    |
| 2192 | 3.075E+04            | 2.782E-09 | 5.014E-07    |
| 2193 | 3.075E+04            | 2.646E-09 | 4.769E-07    |
| 2194 | 3.075E+04            | 2.517E-09 | 4.537E-07    |
| 2195 | 3.075E+04            | 2.395E-09 | 4.315E-07    |
| 2196 | 3.075E+04            | 2.278E-09 | 4.105E-07    |
| 2197 | 3.075E+04            | 2.167E-09 | 3.905E-07    |
| 2198 | 3.075E+04            | 2.061E-09 | 3.714E-07    |
| 2199 | 3.075E+04            | 1.961E-09 | 3.533E-07    |
| 2200 | 3.075E+04            | 1.865E-09 | 3.361E-07    |
| 2201 | 3.075E+04            | 1.774E-09 | 3.197E-07    |
| 2202 | 3.075E+04            | 1.687E-09 | 3.041E-07    |

Table D-52. Emission Rate of 1,1-Dichloroethene from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA4.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1870.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : 1,1-Dichloroethene (HAP/VOC)
Molecular Wt = 96.94      Concentration = 0.040000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2003
Capacity : 30752 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 5271.79 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      1,1-Dichloroethene (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.075E+03      6.587E-06      1.634E-03
1976      6.150E+03      1.285E-05      3.188E-03
1977      9.226E+03      1.881E-05      4.666E-03
1978      1.230E+04      2.448E-05      6.072E-03
1979      1.538E+04      2.988E-05      7.410E-03
1980      1.845E+04      3.501E-05      8.682E-03
1981      2.153E+04      3.989E-05      9.892E-03
1982      2.460E+04      4.453E-05      1.104E-02
1983      2.768E+04      4.894E-05      1.214E-02
1984      3.075E+04      5.314E-05      1.318E-02
1985      3.075E+04      5.055E-05      1.254E-02
1986      3.075E+04      4.809E-05      1.193E-02
1987      3.075E+04      4.574E-05      1.134E-02
1988      3.075E+04      4.351E-05      1.079E-02
1989      3.075E+04      4.139E-05      1.026E-02
1990      3.075E+04      3.937E-05      9.764E-03
1991      3.075E+04      3.745E-05      9.288E-03
1992      3.075E+04      3.562E-05      8.835E-03
1993      3.075E+04      3.389E-05      8.404E-03
1994      3.075E+04      3.223E-05      7.994E-03
1995      3.075E+04      3.066E-05      7.604E-03
1996      3.075E+04      2.917E-05      7.233E-03
1997      3.075E+04      2.774E-05      6.881E-03
1998      3.075E+04      2.639E-05      6.545E-03
1999      3.075E+04      2.510E-05      6.226E-03
2000      3.075E+04      2.388E-05      5.922E-03
2001      3.075E+04      2.271E-05      5.633E-03
2002      3.075E+04      2.161E-05      5.359E-03
2003      3.075E+04      2.055E-05      5.097E-03
2004      3.075E+04      1.955E-05      4.849E-03
2005      3.075E+04      1.860E-05      4.612E-03
2006      3.075E+04      1.769E-05      4.387E-03
2007      3.075E+04      1.683E-05      4.173E-03
2008      3.075E+04      1.601E-05      3.970E-03
2009      3.075E+04      1.523E-05      3.776E-03
2010      3.075E+04      1.448E-05      3.592E-03
2011      3.075E+04      1.378E-05      3.417E-03
2012      3.075E+04      1.310E-05      3.250E-03
2013      3.075E+04      1.247E-05      3.092E-03
2014      3.075E+04      1.186E-05      2.941E-03
2015      3.075E+04      1.128E-05      2.797E-03
2016      3.075E+04      1.073E-05      2.661E-03
2017      3.075E+04      1.021E-05      2.531E-03
2018      3.075E+04      9.708E-06      2.408E-03
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continued

Table D-52. Emission Rate of 1,1-Dichloroethene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.075E+04            | 9.235E-06 | 2.290E-03    |
| 2020 | 3.075E+04            | 8.784E-06 | 2.179E-03    |
| 2021 | 3.075E+04            | 8.356E-06 | 2.072E-03    |
| 2022 | 3.075E+04            | 7.949E-06 | 1.971E-03    |
| 2023 | 3.075E+04            | 7.561E-06 | 1.875E-03    |
| 2024 | 3.075E+04            | 7.192E-06 | 1.784E-03    |
| 2025 | 3.075E+04            | 6.841E-06 | 1.697E-03    |
| 2026 | 3.075E+04            | 6.508E-06 | 1.614E-03    |
| 2027 | 3.075E+04            | 6.190E-06 | 1.535E-03    |
| 2028 | 3.075E+04            | 5.888E-06 | 1.460E-03    |
| 2029 | 3.075E+04            | 5.601E-06 | 1.389E-03    |
| 2030 | 3.075E+04            | 5.328E-06 | 1.321E-03    |
| 2031 | 3.075E+04            | 5.068E-06 | 1.257E-03    |
| 2032 | 3.075E+04            | 4.821E-06 | 1.196E-03    |
| 2033 | 3.075E+04            | 4.586E-06 | 1.137E-03    |
| 2034 | 3.075E+04            | 4.362E-06 | 1.082E-03    |
| 2035 | 3.075E+04            | 4.149E-06 | 1.029E-03    |
| 2036 | 3.075E+04            | 3.947E-06 | 9.789E-04    |
| 2037 | 3.075E+04            | 3.755E-06 | 9.312E-04    |
| 2038 | 3.075E+04            | 3.572E-06 | 8.858E-04    |
| 2039 | 3.075E+04            | 3.397E-06 | 8.426E-04    |
| 2040 | 3.075E+04            | 3.232E-06 | 8.015E-04    |
| 2041 | 3.075E+04            | 3.074E-06 | 7.624E-04    |
| 2042 | 3.075E+04            | 2.924E-06 | 7.252E-04    |
| 2043 | 3.075E+04            | 2.781E-06 | 6.899E-04    |
| 2044 | 3.075E+04            | 2.646E-06 | 6.562E-04    |
| 2045 | 3.075E+04            | 2.517E-06 | 6.242E-04    |
| 2046 | 3.075E+04            | 2.394E-06 | 5.938E-04    |
| 2047 | 3.075E+04            | 2.277E-06 | 5.648E-04    |
| 2048 | 3.075E+04            | 2.166E-06 | 5.373E-04    |
| 2049 | 3.075E+04            | 2.061E-06 | 5.111E-04    |
| 2050 | 3.075E+04            | 1.960E-06 | 4.861E-04    |
| 2051 | 3.075E+04            | 1.864E-06 | 4.624E-04    |
| 2052 | 3.075E+04            | 1.774E-06 | 4.399E-04    |
| 2053 | 3.075E+04            | 1.687E-06 | 4.184E-04    |
| 2054 | 3.075E+04            | 1.605E-06 | 3.980E-04    |
| 2055 | 3.075E+04            | 1.527E-06 | 3.786E-04    |
| 2056 | 3.075E+04            | 1.452E-06 | 3.601E-04    |
| 2057 | 3.075E+04            | 1.381E-06 | 3.426E-04    |
| 2058 | 3.075E+04            | 1.314E-06 | 3.259E-04    |
| 2059 | 3.075E+04            | 1.250E-06 | 3.100E-04    |
| 2060 | 3.075E+04            | 1.189E-06 | 2.949E-04    |
| 2061 | 3.075E+04            | 1.131E-06 | 2.805E-04    |
| 2062 | 3.075E+04            | 1.076E-06 | 2.668E-04    |
| 2063 | 3.075E+04            | 1.023E-06 | 2.538E-04    |
| 2064 | 3.075E+04            | 9.733E-07 | 2.414E-04    |
| 2065 | 3.075E+04            | 9.259E-07 | 2.296E-04    |
| 2066 | 3.075E+04            | 8.807E-07 | 2.184E-04    |
| 2067 | 3.075E+04            | 8.378E-07 | 2.078E-04    |
| 2068 | 3.075E+04            | 7.969E-07 | 1.976E-04    |
| 2069 | 3.075E+04            | 7.580E-07 | 1.880E-04    |
| 2070 | 3.075E+04            | 7.211E-07 | 1.788E-04    |
| 2071 | 3.075E+04            | 6.859E-07 | 1.701E-04    |
| 2072 | 3.075E+04            | 6.525E-07 | 1.618E-04    |
| 2073 | 3.075E+04            | 6.206E-07 | 1.539E-04    |
| 2074 | 3.075E+04            | 5.904E-07 | 1.464E-04    |
| 2075 | 3.075E+04            | 5.616E-07 | 1.393E-04    |
| 2076 | 3.075E+04            | 5.342E-07 | 1.325E-04    |
| 2077 | 3.075E+04            | 5.081E-07 | 1.260E-04    |
| 2078 | 3.075E+04            | 4.834E-07 | 1.199E-04    |
| 2079 | 3.075E+04            | 4.598E-07 | 1.140E-04    |
| 2080 | 3.075E+04            | 4.374E-07 | 1.085E-04    |
| 2081 | 3.075E+04            | 4.160E-07 | 1.032E-04    |
| 2082 | 3.075E+04            | 3.957E-07 | 9.815E-05    |
| 2083 | 3.075E+04            | 3.764E-07 | 9.336E-05    |
| 2084 | 3.075E+04            | 3.581E-07 | 8.881E-05    |
| 2085 | 3.075E+04            | 3.406E-07 | 8.448E-05    |
| 2086 | 3.075E+04            | 3.240E-07 | 8.036E-05    |
| 2087 | 3.075E+04            | 3.082E-07 | 7.644E-05    |
| 2088 | 3.075E+04            | 2.932E-07 | 7.271E-05    |

continued



Table D-52. Emission Rate of 1,1-Dichloroethene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.075E+04            | 2.789E-07 | 6.916E-05    |
| 2090 | 3.075E+04            | 2.653E-07 | 6.579E-05    |
| 2091 | 3.075E+04            | 2.523E-07 | 6.258E-05    |
| 2092 | 3.075E+04            | 2.400E-07 | 5.953E-05    |
| 2093 | 3.075E+04            | 2.283E-07 | 5.663E-05    |
| 2094 | 3.075E+04            | 2.172E-07 | 5.386E-05    |
| 2095 | 3.075E+04            | 2.066E-07 | 5.124E-05    |
| 2096 | 3.075E+04            | 1.965E-07 | 4.874E-05    |
| 2097 | 3.075E+04            | 1.869E-07 | 4.636E-05    |
| 2098 | 3.075E+04            | 1.778E-07 | 4.410E-05    |
| 2099 | 3.075E+04            | 1.691E-07 | 4.195E-05    |
| 2100 | 3.075E+04            | 1.609E-07 | 3.990E-05    |
| 2101 | 3.075E+04            | 1.530E-07 | 3.796E-05    |
| 2102 | 3.075E+04            | 1.456E-07 | 3.611E-05    |
| 2103 | 3.075E+04            | 1.385E-07 | 3.435E-05    |
| 2104 | 3.075E+04            | 1.317E-07 | 3.267E-05    |
| 2105 | 3.075E+04            | 1.253E-07 | 3.108E-05    |
| 2106 | 3.075E+04            | 1.192E-07 | 2.956E-05    |
| 2107 | 3.075E+04            | 1.134E-07 | 2.812E-05    |
| 2108 | 3.075E+04            | 1.079E-07 | 2.675E-05    |
| 2109 | 3.075E+04            | 1.026E-07 | 2.544E-05    |
| 2110 | 3.075E+04            | 9.759E-08 | 2.420E-05    |
| 2111 | 3.075E+04            | 9.283E-08 | 2.302E-05    |
| 2112 | 3.075E+04            | 8.830E-08 | 2.190E-05    |
| 2113 | 3.075E+04            | 8.399E-08 | 2.083E-05    |
| 2114 | 3.075E+04            | 7.990E-08 | 1.982E-05    |
| 2115 | 3.075E+04            | 7.600E-08 | 1.885E-05    |
| 2116 | 3.075E+04            | 7.229E-08 | 1.793E-05    |
| 2117 | 3.075E+04            | 6.877E-08 | 1.706E-05    |
| 2118 | 3.075E+04            | 6.541E-08 | 1.622E-05    |
| 2119 | 3.075E+04            | 6.222E-08 | 1.543E-05    |
| 2120 | 3.075E+04            | 5.919E-08 | 1.468E-05    |
| 2121 | 3.075E+04            | 5.630E-08 | 1.396E-05    |
| 2122 | 3.075E+04            | 5.356E-08 | 1.328E-05    |
| 2123 | 3.075E+04            | 5.094E-08 | 1.264E-05    |
| 2124 | 3.075E+04            | 4.846E-08 | 1.202E-05    |
| 2125 | 3.075E+04            | 4.610E-08 | 1.143E-05    |
| 2126 | 3.075E+04            | 4.385E-08 | 1.088E-05    |
| 2127 | 3.075E+04            | 4.171E-08 | 1.034E-05    |
| 2128 | 3.075E+04            | 3.968E-08 | 9.840E-06    |
| 2129 | 3.075E+04            | 3.774E-08 | 9.360E-06    |
| 2130 | 3.075E+04            | 3.590E-08 | 8.904E-06    |
| 2131 | 3.075E+04            | 3.415E-08 | 8.470E-06    |
| 2132 | 3.075E+04            | 3.248E-08 | 8.056E-06    |
| 2133 | 3.075E+04            | 3.090E-08 | 7.664E-06    |
| 2134 | 3.075E+04            | 2.939E-08 | 7.290E-06    |
| 2135 | 3.075E+04            | 2.796E-08 | 6.934E-06    |
| 2136 | 3.075E+04            | 2.660E-08 | 6.596E-06    |
| 2137 | 3.075E+04            | 2.530E-08 | 6.274E-06    |
| 2138 | 3.075E+04            | 2.406E-08 | 5.968E-06    |
| 2139 | 3.075E+04            | 2.289E-08 | 5.677E-06    |
| 2140 | 3.075E+04            | 2.177E-08 | 5.400E-06    |
| 2141 | 3.075E+04            | 2.071E-08 | 5.137E-06    |
| 2142 | 3.075E+04            | 1.970E-08 | 4.887E-06    |
| 2143 | 3.075E+04            | 1.874E-08 | 4.648E-06    |
| 2144 | 3.075E+04            | 1.783E-08 | 4.421E-06    |
| 2145 | 3.075E+04            | 1.696E-08 | 4.206E-06    |
| 2146 | 3.075E+04            | 1.613E-08 | 4.001E-06    |
| 2147 | 3.075E+04            | 1.534E-08 | 3.806E-06    |
| 2148 | 3.075E+04            | 1.460E-08 | 3.620E-06    |
| 2149 | 3.075E+04            | 1.388E-08 | 3.443E-06    |
| 2150 | 3.075E+04            | 1.321E-08 | 3.276E-06    |
| 2151 | 3.075E+04            | 1.256E-08 | 3.116E-06    |
| 2152 | 3.075E+04            | 1.195E-08 | 2.964E-06    |
| 2153 | 3.075E+04            | 1.137E-08 | 2.819E-06    |
| 2154 | 3.075E+04            | 1.081E-08 | 2.682E-06    |
| 2155 | 3.075E+04            | 1.029E-08 | 2.551E-06    |
| 2156 | 3.075E+04            | 9.784E-09 | 2.427E-06    |
| 2157 | 3.075E+04            | 9.307E-09 | 2.308E-06    |
| 2158 | 3.075E+04            | 8.853E-09 | 2.196E-06    |

continued

Table D-52. Emission Rate of 1,1-Dichloroethene from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.075E+04            | 8.421E-09 | 2.089E-06    |
| 2160 | 3.075E+04            | 8.010E-09 | 1.987E-06    |
| 2161 | 3.075E+04            | 7.620E-09 | 1.890E-06    |
| 2162 | 3.075E+04            | 7.248E-09 | 1.798E-06    |
| 2163 | 3.075E+04            | 6.895E-09 | 1.710E-06    |
| 2164 | 3.075E+04            | 6.558E-09 | 1.627E-06    |
| 2165 | 3.075E+04            | 6.239E-09 | 1.547E-06    |
| 2166 | 3.075E+04            | 5.934E-09 | 1.472E-06    |
| 2167 | 3.075E+04            | 5.645E-09 | 1.400E-06    |
| 2168 | 3.075E+04            | 5.370E-09 | 1.332E-06    |
| 2169 | 3.075E+04            | 5.108E-09 | 1.267E-06    |
| 2170 | 3.075E+04            | 4.859E-09 | 1.205E-06    |
| 2171 | 3.075E+04            | 4.622E-09 | 1.146E-06    |
| 2172 | 3.075E+04            | 4.396E-09 | 1.090E-06    |
| 2173 | 3.075E+04            | 4.182E-09 | 1.037E-06    |
| 2174 | 3.075E+04            | 3.978E-09 | 9.866E-07    |
| 2175 | 3.075E+04            | 3.784E-09 | 9.385E-07    |
| 2176 | 3.075E+04            | 3.599E-09 | 8.927E-07    |
| 2177 | 3.075E+04            | 3.424E-09 | 8.491E-07    |
| 2178 | 3.075E+04            | 3.257E-09 | 8.077E-07    |
| 2179 | 3.075E+04            | 3.098E-09 | 7.683E-07    |
| 2180 | 3.075E+04            | 2.947E-09 | 7.309E-07    |
| 2181 | 3.075E+04            | 2.803E-09 | 6.952E-07    |
| 2182 | 3.075E+04            | 2.666E-09 | 6.613E-07    |
| 2183 | 3.075E+04            | 2.536E-09 | 6.291E-07    |
| 2184 | 3.075E+04            | 2.413E-09 | 5.984E-07    |
| 2185 | 3.075E+04            | 2.295E-09 | 5.692E-07    |
| 2186 | 3.075E+04            | 2.183E-09 | 5.414E-07    |
| 2187 | 3.075E+04            | 2.077E-09 | 5.150E-07    |
| 2188 | 3.075E+04            | 1.975E-09 | 4.899E-07    |
| 2189 | 3.075E+04            | 1.879E-09 | 4.660E-07    |
| 2190 | 3.075E+04            | 1.787E-09 | 4.433E-07    |
| 2191 | 3.075E+04            | 1.700E-09 | 4.217E-07    |
| 2192 | 3.075E+04            | 1.617E-09 | 4.011E-07    |
| 2193 | 3.075E+04            | 1.538E-09 | 3.815E-07    |
| 2194 | 3.075E+04            | 1.463E-09 | 3.629E-07    |
| 2195 | 3.075E+04            | 1.392E-09 | 3.452E-07    |
| 2196 | 3.075E+04            | 1.324E-09 | 3.284E-07    |
| 2197 | 3.075E+04            | 1.260E-09 | 3.124E-07    |
| 2198 | 3.075E+04            | 1.198E-09 | 2.971E-07    |
| 2199 | 3.075E+04            | 1.140E-09 | 2.827E-07    |
| 2200 | 3.075E+04            | 1.084E-09 | 2.689E-07    |
| 2201 | 3.075E+04            | 1.031E-09 | 2.558E-07    |
| 2202 | 3.075E+04            | 9.809E-10 | 2.433E-07    |

Table D-53. Emission Rate of 1,2-Dichloroethane from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA4.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1870.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : 1,2-Dichloroethane (HAP/VOC)
Molecular Wt = 98.96      Concentration = 0.100000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2003
Capacity : 30752 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 5271.79 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      1,2-Dichloroethane (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.075E+03      1.681E-05      4.084E-03
1976      6.150E+03      3.280E-05      7.969E-03
1977      9.226E+03      4.801E-05      1.166E-02
1978      1.230E+04      6.248E-05      1.518E-02
1979      1.538E+04      7.625E-05      1.852E-02
1980      1.845E+04      8.934E-05      2.171E-02
1981      2.153E+04      1.018E-04      2.473E-02
1982      2.460E+04      1.136E-04      2.761E-02
1983      2.768E+04      1.249E-04      3.035E-02
1984      3.075E+04      1.356E-04      3.295E-02
1985      3.075E+04      1.290E-04      3.134E-02
1986      3.075E+04      1.227E-04      2.982E-02
1987      3.075E+04      1.167E-04      2.836E-02
1988      3.075E+04      1.110E-04      2.698E-02
1989      3.075E+04      1.056E-04      2.566E-02
1990      3.075E+04      1.005E-04      2.441E-02
1991      3.075E+04      9.557E-05      2.322E-02
1992      3.075E+04      9.091E-05      2.209E-02
1993      3.075E+04      8.648E-05      2.101E-02
1994      3.075E+04      8.226E-05      1.999E-02
1995      3.075E+04      7.825E-05      1.901E-02
1996      3.075E+04      7.443E-05      1.808E-02
1997      3.075E+04      7.080E-05      1.720E-02
1998      3.075E+04      6.735E-05      1.636E-02
1999      3.075E+04      6.407E-05      1.556E-02
2000      3.075E+04      6.094E-05      1.481E-02
2001      3.075E+04      5.797E-05      1.408E-02
2002      3.075E+04      5.514E-05      1.340E-02
2003      3.075E+04      5.245E-05      1.274E-02
2004      3.075E+04      4.989E-05      1.212E-02
2005      3.075E+04      4.746E-05      1.153E-02
2006      3.075E+04      4.515E-05      1.097E-02
2007      3.075E+04      4.294E-05      1.043E-02
2008      3.075E+04      4.085E-05      9.925E-03
2009      3.075E+04      3.886E-05      9.441E-03
2010      3.075E+04      3.696E-05      8.980E-03
2011      3.075E+04      3.516E-05      8.542E-03
2012      3.075E+04      3.344E-05      8.126E-03
2013      3.075E+04      3.181E-05      7.729E-03
2014      3.075E+04      3.026E-05      7.352E-03
2015      3.075E+04      2.879E-05      6.994E-03
2016      3.075E+04      2.738E-05      6.653E-03
2017      3.075E+04      2.605E-05      6.328E-03
2018      3.075E+04      2.478E-05      6.020E-03
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continued

Table D-53. Emission Rate of 1,2-Dichloroethane from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.075E+04            | 2.357E-05 | 5.726E-03    |
| 2020 | 3.075E+04            | 2.242E-05 | 5.447E-03    |
| 2021 | 3.075E+04            | 2.133E-05 | 5.181E-03    |
| 2022 | 3.075E+04            | 2.029E-05 | 4.928E-03    |
| 2023 | 3.075E+04            | 1.930E-05 | 4.688E-03    |
| 2024 | 3.075E+04            | 1.835E-05 | 4.459E-03    |
| 2025 | 3.075E+04            | 1.746E-05 | 4.242E-03    |
| 2026 | 3.075E+04            | 1.661E-05 | 4.035E-03    |
| 2027 | 3.075E+04            | 1.580E-05 | 3.838E-03    |
| 2028 | 3.075E+04            | 1.503E-05 | 3.651E-03    |
| 2029 | 3.075E+04            | 1.429E-05 | 3.473E-03    |
| 2030 | 3.075E+04            | 1.360E-05 | 3.304E-03    |
| 2031 | 3.075E+04            | 1.293E-05 | 3.142E-03    |
| 2032 | 3.075E+04            | 1.230E-05 | 2.989E-03    |
| 2033 | 3.075E+04            | 1.170E-05 | 2.843E-03    |
| 2034 | 3.075E+04            | 1.113E-05 | 2.705E-03    |
| 2035 | 3.075E+04            | 1.059E-05 | 2.573E-03    |
| 2036 | 3.075E+04            | 1.007E-05 | 2.447E-03    |
| 2037 | 3.075E+04            | 9.582E-06 | 2.328E-03    |
| 2038 | 3.075E+04            | 9.115E-06 | 2.214E-03    |
| 2039 | 3.075E+04            | 8.670E-06 | 2.106E-03    |
| 2040 | 3.075E+04            | 8.247E-06 | 2.004E-03    |
| 2041 | 3.075E+04            | 7.845E-06 | 1.906E-03    |
| 2042 | 3.075E+04            | 7.463E-06 | 1.813E-03    |
| 2043 | 3.075E+04            | 7.099E-06 | 1.725E-03    |
| 2044 | 3.075E+04            | 6.752E-06 | 1.641E-03    |
| 2045 | 3.075E+04            | 6.423E-06 | 1.561E-03    |
| 2046 | 3.075E+04            | 6.110E-06 | 1.484E-03    |
| 2047 | 3.075E+04            | 5.812E-06 | 1.412E-03    |
| 2048 | 3.075E+04            | 5.528E-06 | 1.343E-03    |
| 2049 | 3.075E+04            | 5.259E-06 | 1.278E-03    |
| 2050 | 3.075E+04            | 5.002E-06 | 1.215E-03    |
| 2051 | 3.075E+04            | 4.758E-06 | 1.156E-03    |
| 2052 | 3.075E+04            | 4.526E-06 | 1.100E-03    |
| 2053 | 3.075E+04            | 4.306E-06 | 1.046E-03    |
| 2054 | 3.075E+04            | 4.096E-06 | 9.950E-04    |
| 2055 | 3.075E+04            | 3.896E-06 | 9.465E-04    |
| 2056 | 3.075E+04            | 3.706E-06 | 9.003E-04    |
| 2057 | 3.075E+04            | 3.525E-06 | 8.564E-04    |
| 2058 | 3.075E+04            | 3.353E-06 | 8.147E-04    |
| 2059 | 3.075E+04            | 3.190E-06 | 7.749E-04    |
| 2060 | 3.075E+04            | 3.034E-06 | 7.371E-04    |
| 2061 | 3.075E+04            | 2.886E-06 | 7.012E-04    |
| 2062 | 3.075E+04            | 2.745E-06 | 6.670E-04    |
| 2063 | 3.075E+04            | 2.611E-06 | 6.345E-04    |
| 2064 | 3.075E+04            | 2.484E-06 | 6.035E-04    |
| 2065 | 3.075E+04            | 2.363E-06 | 5.741E-04    |
| 2066 | 3.075E+04            | 2.248E-06 | 5.461E-04    |
| 2067 | 3.075E+04            | 2.138E-06 | 5.194E-04    |
| 2068 | 3.075E+04            | 2.034E-06 | 4.941E-04    |
| 2069 | 3.075E+04            | 1.935E-06 | 4.700E-04    |
| 2070 | 3.075E+04            | 1.840E-06 | 4.471E-04    |
| 2071 | 3.075E+04            | 1.750E-06 | 4.253E-04    |
| 2072 | 3.075E+04            | 1.665E-06 | 4.045E-04    |
| 2073 | 3.075E+04            | 1.584E-06 | 3.848E-04    |
| 2074 | 3.075E+04            | 1.507E-06 | 3.660E-04    |
| 2075 | 3.075E+04            | 1.433E-06 | 3.482E-04    |
| 2076 | 3.075E+04            | 1.363E-06 | 3.312E-04    |
| 2077 | 3.075E+04            | 1.297E-06 | 3.151E-04    |
| 2078 | 3.075E+04            | 1.234E-06 | 2.997E-04    |
| 2079 | 3.075E+04            | 1.173E-06 | 2.851E-04    |
| 2080 | 3.075E+04            | 1.116E-06 | 2.712E-04    |
| 2081 | 3.075E+04            | 1.062E-06 | 2.580E-04    |
| 2082 | 3.075E+04            | 1.010E-06 | 2.454E-04    |
| 2083 | 3.075E+04            | 9.607E-07 | 2.334E-04    |
| 2084 | 3.075E+04            | 9.138E-07 | 2.220E-04    |
| 2085 | 3.075E+04            | 8.693E-07 | 2.112E-04    |
| 2086 | 3.075E+04            | 8.269E-07 | 2.009E-04    |
| 2087 | 3.075E+04            | 7.865E-07 | 1.911E-04    |
| 2088 | 3.075E+04            | 7.482E-07 | 1.818E-04    |

continued

Table D-53. Emission Rate of 1,2-Dichloroethane from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.075E+04            | 7.117E-07 | 1.729E-04    |
| 2090 | 3.075E+04            | 6.770E-07 | 1.645E-04    |
| 2091 | 3.075E+04            | 6.440E-07 | 1.565E-04    |
| 2092 | 3.075E+04            | 6.126E-07 | 1.488E-04    |
| 2093 | 3.075E+04            | 5.827E-07 | 1.416E-04    |
| 2094 | 3.075E+04            | 5.543E-07 | 1.347E-04    |
| 2095 | 3.075E+04            | 5.272E-07 | 1.281E-04    |
| 2096 | 3.075E+04            | 5.015E-07 | 1.218E-04    |
| 2097 | 3.075E+04            | 4.771E-07 | 1.159E-04    |
| 2098 | 3.075E+04            | 4.538E-07 | 1.103E-04    |
| 2099 | 3.075E+04            | 4.317E-07 | 1.049E-04    |
| 2100 | 3.075E+04            | 4.106E-07 | 9.976E-05    |
| 2101 | 3.075E+04            | 3.906E-07 | 9.489E-05    |
| 2102 | 3.075E+04            | 3.715E-07 | 9.027E-05    |
| 2103 | 3.075E+04            | 3.534E-07 | 8.586E-05    |
| 2104 | 3.075E+04            | 3.362E-07 | 8.168E-05    |
| 2105 | 3.075E+04            | 3.198E-07 | 7.769E-05    |
| 2106 | 3.075E+04            | 3.042E-07 | 7.390E-05    |
| 2107 | 3.075E+04            | 2.894E-07 | 7.030E-05    |
| 2108 | 3.075E+04            | 2.752E-07 | 6.687E-05    |
| 2109 | 3.075E+04            | 2.618E-07 | 6.361E-05    |
| 2110 | 3.075E+04            | 2.491E-07 | 6.051E-05    |
| 2111 | 3.075E+04            | 2.369E-07 | 5.756E-05    |
| 2112 | 3.075E+04            | 2.254E-07 | 5.475E-05    |
| 2113 | 3.075E+04            | 2.144E-07 | 5.208E-05    |
| 2114 | 3.075E+04            | 2.039E-07 | 4.954E-05    |
| 2115 | 3.075E+04            | 1.940E-07 | 4.712E-05    |
| 2116 | 3.075E+04            | 1.845E-07 | 4.483E-05    |
| 2117 | 3.075E+04            | 1.755E-07 | 4.264E-05    |
| 2118 | 3.075E+04            | 1.669E-07 | 4.056E-05    |
| 2119 | 3.075E+04            | 1.588E-07 | 3.858E-05    |
| 2120 | 3.075E+04            | 1.511E-07 | 3.670E-05    |
| 2121 | 3.075E+04            | 1.437E-07 | 3.491E-05    |
| 2122 | 3.075E+04            | 1.367E-07 | 3.321E-05    |
| 2123 | 3.075E+04            | 1.300E-07 | 3.159E-05    |
| 2124 | 3.075E+04            | 1.237E-07 | 3.005E-05    |
| 2125 | 3.075E+04            | 1.176E-07 | 2.858E-05    |
| 2126 | 3.075E+04            | 1.119E-07 | 2.719E-05    |
| 2127 | 3.075E+04            | 1.064E-07 | 2.586E-05    |
| 2128 | 3.075E+04            | 1.013E-07 | 2.460E-05    |
| 2129 | 3.075E+04            | 9.632E-08 | 2.340E-05    |
| 2130 | 3.075E+04            | 9.162E-08 | 2.226E-05    |
| 2131 | 3.075E+04            | 8.715E-08 | 2.117E-05    |
| 2132 | 3.075E+04            | 8.290E-08 | 2.014E-05    |
| 2133 | 3.075E+04            | 7.886E-08 | 1.916E-05    |
| 2134 | 3.075E+04            | 7.501E-08 | 1.822E-05    |
| 2135 | 3.075E+04            | 7.135E-08 | 1.734E-05    |
| 2136 | 3.075E+04            | 6.787E-08 | 1.649E-05    |
| 2137 | 3.075E+04            | 6.456E-08 | 1.569E-05    |
| 2138 | 3.075E+04            | 6.142E-08 | 1.492E-05    |
| 2139 | 3.075E+04            | 5.842E-08 | 1.419E-05    |
| 2140 | 3.075E+04            | 5.557E-08 | 1.350E-05    |
| 2141 | 3.075E+04            | 5.286E-08 | 1.284E-05    |
| 2142 | 3.075E+04            | 5.028E-08 | 1.222E-05    |
| 2143 | 3.075E+04            | 4.783E-08 | 1.162E-05    |
| 2144 | 3.075E+04            | 4.550E-08 | 1.105E-05    |
| 2145 | 3.075E+04            | 4.328E-08 | 1.051E-05    |
| 2146 | 3.075E+04            | 4.117E-08 | 1.000E-05    |
| 2147 | 3.075E+04            | 3.916E-08 | 9.514E-06    |
| 2148 | 3.075E+04            | 3.725E-08 | 9.050E-06    |
| 2149 | 3.075E+04            | 3.543E-08 | 8.609E-06    |
| 2150 | 3.075E+04            | 3.371E-08 | 8.189E-06    |
| 2151 | 3.075E+04            | 3.206E-08 | 7.789E-06    |
| 2152 | 3.075E+04            | 3.050E-08 | 7.410E-06    |
| 2153 | 3.075E+04            | 2.901E-08 | 7.048E-06    |
| 2154 | 3.075E+04            | 2.760E-08 | 6.704E-06    |
| 2155 | 3.075E+04            | 2.625E-08 | 6.377E-06    |
| 2156 | 3.075E+04            | 2.497E-08 | 6.066E-06    |
| 2157 | 3.075E+04            | 2.375E-08 | 5.771E-06    |
| 2158 | 3.075E+04            | 2.259E-08 | 5.489E-06    |

continued

Table D-53. Emission Rate of 1,2-Dichloroethane from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.075E+04            | 2.149E-08 | 5.221E-06    |
| 2160 | 3.075E+04            | 2.044E-08 | 4.967E-06    |
| 2161 | 3.075E+04            | 1.945E-08 | 4.725E-06    |
| 2162 | 3.075E+04            | 1.850E-08 | 4.494E-06    |
| 2163 | 3.075E+04            | 1.760E-08 | 4.275E-06    |
| 2164 | 3.075E+04            | 1.674E-08 | 4.066E-06    |
| 2165 | 3.075E+04            | 1.592E-08 | 3.868E-06    |
| 2166 | 3.075E+04            | 1.514E-08 | 3.679E-06    |
| 2167 | 3.075E+04            | 1.441E-08 | 3.500E-06    |
| 2168 | 3.075E+04            | 1.370E-08 | 3.329E-06    |
| 2169 | 3.075E+04            | 1.304E-08 | 3.167E-06    |
| 2170 | 3.075E+04            | 1.240E-08 | 3.012E-06    |
| 2171 | 3.075E+04            | 1.179E-08 | 2.866E-06    |
| 2172 | 3.075E+04            | 1.122E-08 | 2.726E-06    |
| 2173 | 3.075E+04            | 1.067E-08 | 2.593E-06    |
| 2174 | 3.075E+04            | 1.015E-08 | 2.466E-06    |
| 2175 | 3.075E+04            | 9.657E-09 | 2.346E-06    |
| 2176 | 3.075E+04            | 9.186E-09 | 2.232E-06    |
| 2177 | 3.075E+04            | 8.738E-09 | 2.123E-06    |
| 2178 | 3.075E+04            | 8.312E-09 | 2.019E-06    |
| 2179 | 3.075E+04            | 7.906E-09 | 1.921E-06    |
| 2180 | 3.075E+04            | 7.521E-09 | 1.827E-06    |
| 2181 | 3.075E+04            | 7.154E-09 | 1.738E-06    |
| 2182 | 3.075E+04            | 6.805E-09 | 1.653E-06    |
| 2183 | 3.075E+04            | 6.473E-09 | 1.573E-06    |
| 2184 | 3.075E+04            | 6.157E-09 | 1.496E-06    |
| 2185 | 3.075E+04            | 5.857E-09 | 1.423E-06    |
| 2186 | 3.075E+04            | 5.571E-09 | 1.354E-06    |
| 2187 | 3.075E+04            | 5.300E-09 | 1.288E-06    |
| 2188 | 3.075E+04            | 5.041E-09 | 1.225E-06    |
| 2189 | 3.075E+04            | 4.795E-09 | 1.165E-06    |
| 2190 | 3.075E+04            | 4.562E-09 | 1.108E-06    |
| 2191 | 3.075E+04            | 4.339E-09 | 1.054E-06    |
| 2192 | 3.075E+04            | 4.127E-09 | 1.003E-06    |
| 2193 | 3.075E+04            | 3.926E-09 | 9.539E-07    |
| 2194 | 3.075E+04            | 3.735E-09 | 9.073E-07    |
| 2195 | 3.075E+04            | 3.553E-09 | 8.631E-07    |
| 2196 | 3.075E+04            | 3.379E-09 | 8.210E-07    |
| 2197 | 3.075E+04            | 3.214E-09 | 7.810E-07    |
| 2198 | 3.075E+04            | 3.058E-09 | 7.429E-07    |
| 2199 | 3.075E+04            | 2.909E-09 | 7.066E-07    |
| 2200 | 3.075E+04            | 2.767E-09 | 6.722E-07    |
| 2201 | 3.075E+04            | 2.632E-09 | 6.394E-07    |
| 2202 | 3.075E+04            | 2.503E-09 | 6.082E-07    |

Table D-54. Emission Rate of Benzene from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA4.PRM

=====  
 Model Parameters  
 =====

Lo : 170.00 m<sup>3</sup> / Mg  
 k : 0.0500 1/yr  
 NMOC : 1870.00 ppmv  
 Methane : 64.0000 % volume  
 Carbon Dioxide : 36.0000 % volume  
 Air Pollutant : Benzene (HAP/VOC)  
 Molecular Wt = 78.12      Concentration = 0.840000 ppmV

=====  
 Landfill Parameters  
 =====

Landfill type : Co-Disposal  
 Year Opened : 1974      Current Year : 2004      Closure Year: 2003  
 Capacity : 30752 Mg  
 Average Acceptance Rate Required from  
     Current Year to Closure Year : 5271.79 Mg/year

=====  
 Model Results  
 =====

| Year | Refuse In Place (Mg) | Benzene (HAP/VOC) Emission Rate (Mg/yr) | (Cubic m/yr) |
|------|----------------------|---|--------------|
| 1975 | 3.075E+03            | 1.115E-04                               | 3.431E-02    |
| 1976 | 6.150E+03            | 2.175E-04                               | 6.694E-02    |
| 1977 | 9.226E+03            | 3.184E-04                               | 9.799E-02    |
| 1978 | 1.230E+04            | 4.143E-04                               | 1.275E-01    |
| 1979 | 1.538E+04            | 5.056E-04                               | 1.556E-01    |
| 1980 | 1.845E+04            | 5.924E-04                               | 1.823E-01    |
| 1981 | 2.153E+04            | 6.750E-04                               | 2.077E-01    |
| 1982 | 2.460E+04            | 7.535E-04                               | 2.319E-01    |
| 1983 | 2.768E+04            | 8.283E-04                               | 2.549E-01    |
| 1984 | 3.075E+04            | 8.993E-04                               | 2.768E-01    |
| 1985 | 3.075E+04            | 8.555E-04                               | 2.633E-01    |
| 1986 | 3.075E+04            | 8.138E-04                               | 2.504E-01    |
| 1987 | 3.075E+04            | 7.741E-04                               | 2.382E-01    |
| 1988 | 3.075E+04            | 7.363E-04                               | 2.266E-01    |
| 1989 | 3.075E+04            | 7.004E-04                               | 2.156E-01    |
| 1990 | 3.075E+04            | 6.662E-04                               | 2.050E-01    |
| 1991 | 3.075E+04            | 6.338E-04                               | 1.950E-01    |
| 1992 | 3.075E+04            | 6.028E-04                               | 1.855E-01    |
| 1993 | 3.075E+04            | 5.734E-04                               | 1.765E-01    |
| 1994 | 3.075E+04            | 5.455E-04                               | 1.679E-01    |
| 1995 | 3.075E+04            | 5.189E-04                               | 1.597E-01    |
| 1996 | 3.075E+04            | 4.936E-04                               | 1.519E-01    |
| 1997 | 3.075E+04            | 4.695E-04                               | 1.445E-01    |
| 1998 | 3.075E+04            | 4.466E-04                               | 1.374E-01    |
| 1999 | 3.075E+04            | 4.248E-04                               | 1.307E-01    |
| 2000 | 3.075E+04            | 4.041E-04                               | 1.244E-01    |
| 2001 | 3.075E+04            | 3.844E-04                               | 1.183E-01    |
| 2002 | 3.075E+04            | 3.656E-04                               | 1.125E-01    |
| 2003 | 3.075E+04            | 3.478E-04                               | 1.070E-01    |
| 2004 | 3.075E+04            | 3.308E-04                               | 1.018E-01    |
| 2005 | 3.075E+04            | 3.147E-04                               | 9.686E-02    |
| 2006 | 3.075E+04            | 2.994E-04                               | 9.213E-02    |
| 2007 | 3.075E+04            | 2.848E-04                               | 8.764E-02    |
| 2008 | 3.075E+04            | 2.709E-04                               | 8.337E-02    |
| 2009 | 3.075E+04            | 2.577E-04                               | 7.930E-02    |
| 2010 | 3.075E+04            | 2.451E-04                               | 7.543E-02    |
| 2011 | 3.075E+04            | 2.331E-04                               | 7.175E-02    |
| 2012 | 3.075E+04            | 2.218E-04                               | 6.825E-02    |
| 2013 | 3.075E+04            | 2.110E-04                               | 6.493E-02    |
| 2014 | 3.075E+04            | 2.007E-04                               | 6.176E-02    |
| 2015 | 3.075E+04            | 1.909E-04                               | 5.875E-02    |
| 2016 | 3.075E+04            | 1.816E-04                               | 5.588E-02    |
| 2017 | 3.075E+04            | 1.727E-04                               | 5.316E-02    |
| 2018 | 3.075E+04            | 1.643E-04                               | 5.056E-02    |

continued

Table D-54. Emission Rate of Benzene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.075E+04            | 1.563E-04 | 4.810E-02    |
| 2020 | 3.075E+04            | 1.487E-04 | 4.575E-02    |
| 2021 | 3.075E+04            | 1.414E-04 | 4.352E-02    |
| 2022 | 3.075E+04            | 1.345E-04 | 4.140E-02    |
| 2023 | 3.075E+04            | 1.280E-04 | 3.938E-02    |
| 2024 | 3.075E+04            | 1.217E-04 | 3.746E-02    |
| 2025 | 3.075E+04            | 1.158E-04 | 3.563E-02    |
| 2026 | 3.075E+04            | 1.101E-04 | 3.389E-02    |
| 2027 | 3.075E+04            | 1.048E-04 | 3.224E-02    |
| 2028 | 3.075E+04            | 9.965E-05 | 3.067E-02    |
| 2029 | 3.075E+04            | 9.479E-05 | 2.917E-02    |
| 2030 | 3.075E+04            | 9.017E-05 | 2.775E-02    |
| 2031 | 3.075E+04            | 8.577E-05 | 2.640E-02    |
| 2032 | 3.075E+04            | 8.159E-05 | 2.511E-02    |
| 2033 | 3.075E+04            | 7.761E-05 | 2.388E-02    |
| 2034 | 3.075E+04            | 7.382E-05 | 2.272E-02    |
| 2035 | 3.075E+04            | 7.022E-05 | 2.161E-02    |
| 2036 | 3.075E+04            | 6.680E-05 | 2.056E-02    |
| 2037 | 3.075E+04            | 6.354E-05 | 1.956E-02    |
| 2038 | 3.075E+04            | 6.044E-05 | 1.860E-02    |
| 2039 | 3.075E+04            | 5.749E-05 | 1.769E-02    |
| 2040 | 3.075E+04            | 5.469E-05 | 1.683E-02    |
| 2041 | 3.075E+04            | 5.202E-05 | 1.601E-02    |
| 2042 | 3.075E+04            | 4.948E-05 | 1.523E-02    |
| 2043 | 3.075E+04            | 4.707E-05 | 1.449E-02    |
| 2044 | 3.075E+04            | 4.478E-05 | 1.378E-02    |
| 2045 | 3.075E+04            | 4.259E-05 | 1.311E-02    |
| 2046 | 3.075E+04            | 4.051E-05 | 1.247E-02    |
| 2047 | 3.075E+04            | 3.854E-05 | 1.186E-02    |
| 2048 | 3.075E+04            | 3.666E-05 | 1.128E-02    |
| 2049 | 3.075E+04            | 3.487E-05 | 1.073E-02    |
| 2050 | 3.075E+04            | 3.317E-05 | 1.021E-02    |
| 2051 | 3.075E+04            | 3.155E-05 | 9.711E-03    |
| 2052 | 3.075E+04            | 3.001E-05 | 9.237E-03    |
| 2053 | 3.075E+04            | 2.855E-05 | 8.787E-03    |
| 2054 | 3.075E+04            | 2.716E-05 | 8.358E-03    |
| 2055 | 3.075E+04            | 2.583E-05 | 7.951E-03    |
| 2056 | 3.075E+04            | 2.457E-05 | 7.563E-03    |
| 2057 | 3.075E+04            | 2.337E-05 | 7.194E-03    |
| 2058 | 3.075E+04            | 2.223E-05 | 6.843E-03    |
| 2059 | 3.075E+04            | 2.115E-05 | 6.509E-03    |
| 2060 | 3.075E+04            | 2.012E-05 | 6.192E-03    |
| 2061 | 3.075E+04            | 1.914E-05 | 5.890E-03    |
| 2062 | 3.075E+04            | 1.820E-05 | 5.603E-03    |
| 2063 | 3.075E+04            | 1.732E-05 | 5.329E-03    |
| 2064 | 3.075E+04            | 1.647E-05 | 5.070E-03    |
| 2065 | 3.075E+04            | 1.567E-05 | 4.822E-03    |
| 2066 | 3.075E+04            | 1.490E-05 | 4.587E-03    |
| 2067 | 3.075E+04            | 1.418E-05 | 4.363E-03    |
| 2068 | 3.075E+04            | 1.349E-05 | 4.151E-03    |
| 2069 | 3.075E+04            | 1.283E-05 | 3.948E-03    |
| 2070 | 3.075E+04            | 1.220E-05 | 3.756E-03    |
| 2071 | 3.075E+04            | 1.161E-05 | 3.572E-03    |
| 2072 | 3.075E+04            | 1.104E-05 | 3.398E-03    |
| 2073 | 3.075E+04            | 1.050E-05 | 3.232E-03    |
| 2074 | 3.075E+04            | 9.991E-06 | 3.075E-03    |
| 2075 | 3.075E+04            | 9.504E-06 | 2.925E-03    |
| 2076 | 3.075E+04            | 9.040E-06 | 2.782E-03    |
| 2077 | 3.075E+04            | 8.599E-06 | 2.647E-03    |
| 2078 | 3.075E+04            | 8.180E-06 | 2.517E-03    |
| 2079 | 3.075E+04            | 7.781E-06 | 2.395E-03    |
| 2080 | 3.075E+04            | 7.401E-06 | 2.278E-03    |
| 2081 | 3.075E+04            | 7.040E-06 | 2.167E-03    |
| 2082 | 3.075E+04            | 6.697E-06 | 2.061E-03    |
| 2083 | 3.075E+04            | 6.370E-06 | 1.961E-03    |
| 2084 | 3.075E+04            | 6.060E-06 | 1.865E-03    |
| 2085 | 3.075E+04            | 5.764E-06 | 1.774E-03    |
| 2086 | 3.075E+04            | 5.483E-06 | 1.687E-03    |
| 2087 | 3.075E+04            | 5.216E-06 | 1.605E-03    |
| 2088 | 3.075E+04            | 4.961E-06 | 1.527E-03    |

continued



Table D-54. Emission Rate of Benzene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.075E+04            | 4.719E-06 | 1.452E-03    |
| 2090 | 3.075E+04            | 4.489E-06 | 1.382E-03    |
| 2091 | 3.075E+04            | 4.270E-06 | 1.314E-03    |
| 2092 | 3.075E+04            | 4.062E-06 | 1.250E-03    |
| 2093 | 3.075E+04            | 3.864E-06 | 1.189E-03    |
| 2094 | 3.075E+04            | 3.675E-06 | 1.131E-03    |
| 2095 | 3.075E+04            | 3.496E-06 | 1.076E-03    |
| 2096 | 3.075E+04            | 3.326E-06 | 1.024E-03    |
| 2097 | 3.075E+04            | 3.163E-06 | 9.736E-04    |
| 2098 | 3.075E+04            | 3.009E-06 | 9.261E-04    |
| 2099 | 3.075E+04            | 2.862E-06 | 8.809E-04    |
| 2100 | 3.075E+04            | 2.723E-06 | 8.380E-04    |
| 2101 | 3.075E+04            | 2.590E-06 | 7.971E-04    |
| 2102 | 3.075E+04            | 2.464E-06 | 7.582E-04    |
| 2103 | 3.075E+04            | 2.344E-06 | 7.213E-04    |
| 2104 | 3.075E+04            | 2.229E-06 | 6.861E-04    |
| 2105 | 3.075E+04            | 2.121E-06 | 6.526E-04    |
| 2106 | 3.075E+04            | 2.017E-06 | 6.208E-04    |
| 2107 | 3.075E+04            | 1.919E-06 | 5.905E-04    |
| 2108 | 3.075E+04            | 1.825E-06 | 5.617E-04    |
| 2109 | 3.075E+04            | 1.736E-06 | 5.343E-04    |
| 2110 | 3.075E+04            | 1.651E-06 | 5.083E-04    |
| 2111 | 3.075E+04            | 1.571E-06 | 4.835E-04    |
| 2112 | 3.075E+04            | 1.494E-06 | 4.599E-04    |
| 2113 | 3.075E+04            | 1.421E-06 | 4.375E-04    |
| 2114 | 3.075E+04            | 1.352E-06 | 4.161E-04    |
| 2115 | 3.075E+04            | 1.286E-06 | 3.958E-04    |
| 2116 | 3.075E+04            | 1.223E-06 | 3.765E-04    |
| 2117 | 3.075E+04            | 1.164E-06 | 3.582E-04    |
| 2118 | 3.075E+04            | 1.107E-06 | 3.407E-04    |
| 2119 | 3.075E+04            | 1.053E-06 | 3.241E-04    |
| 2120 | 3.075E+04            | 1.002E-06 | 3.083E-04    |
| 2121 | 3.075E+04            | 9.528E-07 | 2.932E-04    |
| 2122 | 3.075E+04            | 9.063E-07 | 2.789E-04    |
| 2123 | 3.075E+04            | 8.621E-07 | 2.653E-04    |
| 2124 | 3.075E+04            | 8.201E-07 | 2.524E-04    |
| 2125 | 3.075E+04            | 7.801E-07 | 2.401E-04    |
| 2126 | 3.075E+04            | 7.421E-07 | 2.284E-04    |
| 2127 | 3.075E+04            | 7.059E-07 | 2.172E-04    |
| 2128 | 3.075E+04            | 6.714E-07 | 2.066E-04    |
| 2129 | 3.075E+04            | 6.387E-07 | 1.966E-04    |
| 2130 | 3.075E+04            | 6.075E-07 | 1.870E-04    |
| 2131 | 3.075E+04            | 5.779E-07 | 1.779E-04    |
| 2132 | 3.075E+04            | 5.497E-07 | 1.692E-04    |
| 2133 | 3.075E+04            | 5.229E-07 | 1.609E-04    |
| 2134 | 3.075E+04            | 4.974E-07 | 1.531E-04    |
| 2135 | 3.075E+04            | 4.732E-07 | 1.456E-04    |
| 2136 | 3.075E+04            | 4.501E-07 | 1.385E-04    |
| 2137 | 3.075E+04            | 4.281E-07 | 1.318E-04    |
| 2138 | 3.075E+04            | 4.072E-07 | 1.253E-04    |
| 2139 | 3.075E+04            | 3.874E-07 | 1.192E-04    |
| 2140 | 3.075E+04            | 3.685E-07 | 1.134E-04    |
| 2141 | 3.075E+04            | 3.505E-07 | 1.079E-04    |
| 2142 | 3.075E+04            | 3.334E-07 | 1.026E-04    |
| 2143 | 3.075E+04            | 3.172E-07 | 9.761E-05    |
| 2144 | 3.075E+04            | 3.017E-07 | 9.285E-05    |
| 2145 | 3.075E+04            | 2.870E-07 | 8.832E-05    |
| 2146 | 3.075E+04            | 2.730E-07 | 8.402E-05    |
| 2147 | 3.075E+04            | 2.597E-07 | 7.992E-05    |
| 2148 | 3.075E+04            | 2.470E-07 | 7.602E-05    |
| 2149 | 3.075E+04            | 2.350E-07 | 7.231E-05    |
| 2150 | 3.075E+04            | 2.235E-07 | 6.879E-05    |
| 2151 | 3.075E+04            | 2.126E-07 | 6.543E-05    |
| 2152 | 3.075E+04            | 2.022E-07 | 6.224E-05    |
| 2153 | 3.075E+04            | 1.924E-07 | 5.920E-05    |
| 2154 | 3.075E+04            | 1.830E-07 | 5.632E-05    |
| 2155 | 3.075E+04            | 1.741E-07 | 5.357E-05    |
| 2156 | 3.075E+04            | 1.656E-07 | 5.096E-05    |
| 2157 | 3.075E+04            | 1.575E-07 | 4.847E-05    |
| 2158 | 3.075E+04            | 1.498E-07 | 4.611E-05    |

continued

Table D-54. Emission Rate of Benzene from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.075E+04            | 1.425E-07 | 4.386E-05    |
| 2160 | 3.075E+04            | 1.356E-07 | 4.172E-05    |
| 2161 | 3.075E+04            | 1.289E-07 | 3.969E-05    |
| 2162 | 3.075E+04            | 1.227E-07 | 3.775E-05    |
| 2163 | 3.075E+04            | 1.167E-07 | 3.591E-05    |
| 2164 | 3.075E+04            | 1.110E-07 | 3.416E-05    |
| 2165 | 3.075E+04            | 1.056E-07 | 3.249E-05    |
| 2166 | 3.075E+04            | 1.004E-07 | 3.091E-05    |
| 2167 | 3.075E+04            | 9.553E-08 | 2.940E-05    |
| 2168 | 3.075E+04            | 9.087E-08 | 2.797E-05    |
| 2169 | 3.075E+04            | 8.644E-08 | 2.660E-05    |
| 2170 | 3.075E+04            | 8.222E-08 | 2.530E-05    |
| 2171 | 3.075E+04            | 7.821E-08 | 2.407E-05    |
| 2172 | 3.075E+04            | 7.440E-08 | 2.290E-05    |
| 2173 | 3.075E+04            | 7.077E-08 | 2.178E-05    |
| 2174 | 3.075E+04            | 6.732E-08 | 2.072E-05    |
| 2175 | 3.075E+04            | 6.403E-08 | 1.971E-05    |
| 2176 | 3.075E+04            | 6.091E-08 | 1.875E-05    |
| 2177 | 3.075E+04            | 5.794E-08 | 1.783E-05    |
| 2178 | 3.075E+04            | 5.511E-08 | 1.696E-05    |
| 2179 | 3.075E+04            | 5.243E-08 | 1.614E-05    |
| 2180 | 3.075E+04            | 4.987E-08 | 1.535E-05    |
| 2181 | 3.075E+04            | 4.744E-08 | 1.460E-05    |
| 2182 | 3.075E+04            | 4.512E-08 | 1.389E-05    |
| 2183 | 3.075E+04            | 4.292E-08 | 1.321E-05    |
| 2184 | 3.075E+04            | 4.083E-08 | 1.257E-05    |
| 2185 | 3.075E+04            | 3.884E-08 | 1.195E-05    |
| 2186 | 3.075E+04            | 3.694E-08 | 1.137E-05    |
| 2187 | 3.075E+04            | 3.514E-08 | 1.082E-05    |
| 2188 | 3.075E+04            | 3.343E-08 | 1.029E-05    |
| 2189 | 3.075E+04            | 3.180E-08 | 9.786E-06    |
| 2190 | 3.075E+04            | 3.025E-08 | 9.309E-06    |
| 2191 | 3.075E+04            | 2.877E-08 | 8.855E-06    |
| 2192 | 3.075E+04            | 2.737E-08 | 8.423E-06    |
| 2193 | 3.075E+04            | 2.603E-08 | 8.012E-06    |
| 2194 | 3.075E+04            | 2.476E-08 | 7.622E-06    |
| 2195 | 3.075E+04            | 2.356E-08 | 7.250E-06    |
| 2196 | 3.075E+04            | 2.241E-08 | 6.896E-06    |
| 2197 | 3.075E+04            | 2.132E-08 | 6.560E-06    |
| 2198 | 3.075E+04            | 2.028E-08 | 6.240E-06    |
| 2199 | 3.075E+04            | 1.929E-08 | 5.936E-06    |
| 2200 | 3.075E+04            | 1.835E-08 | 5.646E-06    |
| 2201 | 3.075E+04            | 1.745E-08 | 5.371E-06    |
| 2202 | 3.075E+04            | 1.660E-08 | 5.109E-06    |

Table D-55. Emission Rate of Chlorobenzene from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA4.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1870.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Chlorobenzene (HAP/VOC)
Molecular Wt = 112.56      Concentration =      0.220000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2003
Capacity : 30752 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 5271.79 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      Chlorobenzene (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.075E+03      4.207E-05      8.985E-03
1976      6.150E+03      8.208E-05      1.753E-02
1977      9.226E+03      1.201E-04      2.566E-02
1978      1.230E+04      1.564E-04      3.340E-02
1979      1.538E+04      1.908E-04      4.075E-02
1980      1.845E+04      2.236E-04      4.775E-02
1981      2.153E+04      2.547E-04      5.441E-02
1982      2.460E+04      2.844E-04      6.074E-02
1983      2.768E+04      3.126E-04      6.676E-02
1984      3.075E+04      3.394E-04      7.249E-02
1985      3.075E+04      3.228E-04      6.896E-02
1986      3.075E+04      3.071E-04      6.559E-02
1987      3.075E+04      2.921E-04      6.239E-02
1988      3.075E+04      2.779E-04      5.935E-02
1989      3.075E+04      2.643E-04      5.646E-02
1990      3.075E+04      2.514E-04      5.370E-02
1991      3.075E+04      2.392E-04      5.108E-02
1992      3.075E+04      2.275E-04      4.859E-02
1993      3.075E+04      2.164E-04      4.622E-02
1994      3.075E+04      2.058E-04      4.397E-02
1995      3.075E+04      1.958E-04      4.182E-02
1996      3.075E+04      1.863E-04      3.978E-02
1997      3.075E+04      1.772E-04      3.784E-02
1998      3.075E+04      1.685E-04      3.600E-02
1999      3.075E+04      1.603E-04      3.424E-02
2000      3.075E+04      1.525E-04      3.257E-02
2001      3.075E+04      1.451E-04      3.098E-02
2002      3.075E+04      1.380E-04      2.947E-02
2003      3.075E+04      1.313E-04      2.804E-02
2004      3.075E+04      1.249E-04      2.667E-02
2005      3.075E+04      1.188E-04      2.537E-02
2006      3.075E+04      1.130E-04      2.413E-02
2007      3.075E+04      1.075E-04      2.295E-02
2008      3.075E+04      1.022E-04      2.183E-02
2009      3.075E+04      9.723E-05      2.077E-02
2010      3.075E+04      9.249E-05      1.976E-02
2011      3.075E+04      8.798E-05      1.879E-02
2012      3.075E+04      8.369E-05      1.788E-02
2013      3.075E+04      7.961E-05      1.700E-02
2014      3.075E+04      7.573E-05      1.618E-02
2015      3.075E+04      7.203E-05      1.539E-02
2016      3.075E+04      6.852E-05      1.464E-02
2017      3.075E+04      6.518E-05      1.392E-02
2018      3.075E+04      6.200E-05      1.324E-02
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continued

Table D-55. Emission Rate of Chlorobenzene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.075E+04            | 5.898E-05 | 1.260E-02    |
| 2020 | 3.075E+04            | 5.610E-05 | 1.198E-02    |
| 2021 | 3.075E+04            | 5.336E-05 | 1.140E-02    |
| 2022 | 3.075E+04            | 5.076E-05 | 1.084E-02    |
| 2023 | 3.075E+04            | 4.829E-05 | 1.031E-02    |
| 2024 | 3.075E+04            | 4.593E-05 | 9.811E-03    |
| 2025 | 3.075E+04            | 4.369E-05 | 9.332E-03    |
| 2026 | 3.075E+04            | 4.156E-05 | 8.877E-03    |
| 2027 | 3.075E+04            | 3.953E-05 | 8.444E-03    |
| 2028 | 3.075E+04            | 3.760E-05 | 8.032E-03    |
| 2029 | 3.075E+04            | 3.577E-05 | 7.641E-03    |
| 2030 | 3.075E+04            | 3.403E-05 | 7.268E-03    |
| 2031 | 3.075E+04            | 3.237E-05 | 6.913E-03    |
| 2032 | 3.075E+04            | 3.079E-05 | 6.576E-03    |
| 2033 | 3.075E+04            | 2.929E-05 | 6.256E-03    |
| 2034 | 3.075E+04            | 2.786E-05 | 5.950E-03    |
| 2035 | 3.075E+04            | 2.650E-05 | 5.660E-03    |
| 2036 | 3.075E+04            | 2.521E-05 | 5.384E-03    |
| 2037 | 3.075E+04            | 2.398E-05 | 5.122E-03    |
| 2038 | 3.075E+04            | 2.281E-05 | 4.872E-03    |
| 2039 | 3.075E+04            | 2.170E-05 | 4.634E-03    |
| 2040 | 3.075E+04            | 2.064E-05 | 4.408E-03    |
| 2041 | 3.075E+04            | 1.963E-05 | 4.193E-03    |
| 2042 | 3.075E+04            | 1.867E-05 | 3.989E-03    |
| 2043 | 3.075E+04            | 1.776E-05 | 3.794E-03    |
| 2044 | 3.075E+04            | 1.690E-05 | 3.609E-03    |
| 2045 | 3.075E+04            | 1.607E-05 | 3.433E-03    |
| 2046 | 3.075E+04            | 1.529E-05 | 3.266E-03    |
| 2047 | 3.075E+04            | 1.454E-05 | 3.106E-03    |
| 2048 | 3.075E+04            | 1.383E-05 | 2.955E-03    |
| 2049 | 3.075E+04            | 1.316E-05 | 2.811E-03    |
| 2050 | 3.075E+04            | 1.252E-05 | 2.674E-03    |
| 2051 | 3.075E+04            | 1.191E-05 | 2.543E-03    |
| 2052 | 3.075E+04            | 1.133E-05 | 2.419E-03    |
| 2053 | 3.075E+04            | 1.077E-05 | 2.301E-03    |
| 2054 | 3.075E+04            | 1.025E-05 | 2.189E-03    |
| 2055 | 3.075E+04            | 9.749E-06 | 2.082E-03    |
| 2056 | 3.075E+04            | 9.273E-06 | 1.981E-03    |
| 2057 | 3.075E+04            | 8.821E-06 | 1.884E-03    |
| 2058 | 3.075E+04            | 8.391E-06 | 1.792E-03    |
| 2059 | 3.075E+04            | 7.982E-06 | 1.705E-03    |
| 2060 | 3.075E+04            | 7.592E-06 | 1.622E-03    |
| 2061 | 3.075E+04            | 7.222E-06 | 1.543E-03    |
| 2062 | 3.075E+04            | 6.870E-06 | 1.467E-03    |
| 2063 | 3.075E+04            | 6.535E-06 | 1.396E-03    |
| 2064 | 3.075E+04            | 6.216E-06 | 1.328E-03    |
| 2065 | 3.075E+04            | 5.913E-06 | 1.263E-03    |
| 2066 | 3.075E+04            | 5.624E-06 | 1.201E-03    |
| 2067 | 3.075E+04            | 5.350E-06 | 1.143E-03    |
| 2068 | 3.075E+04            | 5.089E-06 | 1.087E-03    |
| 2069 | 3.075E+04            | 4.841E-06 | 1.034E-03    |
| 2070 | 3.075E+04            | 4.605E-06 | 9.836E-04    |
| 2071 | 3.075E+04            | 4.380E-06 | 9.356E-04    |
| 2072 | 3.075E+04            | 4.167E-06 | 8.900E-04    |
| 2073 | 3.075E+04            | 3.964E-06 | 8.466E-04    |
| 2074 | 3.075E+04            | 3.770E-06 | 8.053E-04    |
| 2075 | 3.075E+04            | 3.586E-06 | 7.660E-04    |
| 2076 | 3.075E+04            | 3.411E-06 | 7.287E-04    |
| 2077 | 3.075E+04            | 3.245E-06 | 6.931E-04    |
| 2078 | 3.075E+04            | 3.087E-06 | 6.593E-04    |
| 2079 | 3.075E+04            | 2.936E-06 | 6.272E-04    |
| 2080 | 3.075E+04            | 2.793E-06 | 5.966E-04    |
| 2081 | 3.075E+04            | 2.657E-06 | 5.675E-04    |
| 2082 | 3.075E+04            | 2.527E-06 | 5.398E-04    |
| 2083 | 3.075E+04            | 2.404E-06 | 5.135E-04    |
| 2084 | 3.075E+04            | 2.287E-06 | 4.884E-04    |
| 2085 | 3.075E+04            | 2.175E-06 | 4.646E-04    |
| 2086 | 3.075E+04            | 2.069E-06 | 4.420E-04    |
| 2087 | 3.075E+04            | 1.968E-06 | 4.204E-04    |
| 2088 | 3.075E+04            | 1.872E-06 | 3.999E-04    |

continued

Table D-55. Emission Rate of Chlorobenzene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.075E+04            | 1.781E-06 | 3.804E-04    |
| 2090 | 3.075E+04            | 1.694E-06 | 3.618E-04    |
| 2091 | 3.075E+04            | 1.611E-06 | 3.442E-04    |
| 2092 | 3.075E+04            | 1.533E-06 | 3.274E-04    |
| 2093 | 3.075E+04            | 1.458E-06 | 3.114E-04    |
| 2094 | 3.075E+04            | 1.387E-06 | 2.963E-04    |
| 2095 | 3.075E+04            | 1.319E-06 | 2.818E-04    |
| 2096 | 3.075E+04            | 1.255E-06 | 2.681E-04    |
| 2097 | 3.075E+04            | 1.194E-06 | 2.550E-04    |
| 2098 | 3.075E+04            | 1.136E-06 | 2.426E-04    |
| 2099 | 3.075E+04            | 1.080E-06 | 2.307E-04    |
| 2100 | 3.075E+04            | 1.027E-06 | 2.195E-04    |
| 2101 | 3.075E+04            | 9.774E-07 | 2.088E-04    |
| 2102 | 3.075E+04            | 9.297E-07 | 1.986E-04    |
| 2103 | 3.075E+04            | 8.844E-07 | 1.889E-04    |
| 2104 | 3.075E+04            | 8.412E-07 | 1.797E-04    |
| 2105 | 3.075E+04            | 8.002E-07 | 1.709E-04    |
| 2106 | 3.075E+04            | 7.612E-07 | 1.626E-04    |
| 2107 | 3.075E+04            | 7.241E-07 | 1.547E-04    |
| 2108 | 3.075E+04            | 6.888E-07 | 1.471E-04    |
| 2109 | 3.075E+04            | 6.552E-07 | 1.399E-04    |
| 2110 | 3.075E+04            | 6.232E-07 | 1.331E-04    |
| 2111 | 3.075E+04            | 5.928E-07 | 1.266E-04    |
| 2112 | 3.075E+04            | 5.639E-07 | 1.204E-04    |
| 2113 | 3.075E+04            | 5.364E-07 | 1.146E-04    |
| 2114 | 3.075E+04            | 5.102E-07 | 1.090E-04    |
| 2115 | 3.075E+04            | 4.854E-07 | 1.037E-04    |
| 2116 | 3.075E+04            | 4.617E-07 | 9.862E-05    |
| 2117 | 3.075E+04            | 4.392E-07 | 9.381E-05    |
| 2118 | 3.075E+04            | 4.178E-07 | 8.923E-05    |
| 2119 | 3.075E+04            | 3.974E-07 | 8.488E-05    |
| 2120 | 3.075E+04            | 3.780E-07 | 8.074E-05    |
| 2121 | 3.075E+04            | 3.596E-07 | 7.680E-05    |
| 2122 | 3.075E+04            | 3.420E-07 | 7.306E-05    |
| 2123 | 3.075E+04            | 3.253E-07 | 6.949E-05    |
| 2124 | 3.075E+04            | 3.095E-07 | 6.610E-05    |
| 2125 | 3.075E+04            | 2.944E-07 | 6.288E-05    |
| 2126 | 3.075E+04            | 2.800E-07 | 5.981E-05    |
| 2127 | 3.075E+04            | 2.664E-07 | 5.690E-05    |
| 2128 | 3.075E+04            | 2.534E-07 | 5.412E-05    |
| 2129 | 3.075E+04            | 2.410E-07 | 5.148E-05    |
| 2130 | 3.075E+04            | 2.293E-07 | 4.897E-05    |
| 2131 | 3.075E+04            | 2.181E-07 | 4.658E-05    |
| 2132 | 3.075E+04            | 2.074E-07 | 4.431E-05    |
| 2133 | 3.075E+04            | 1.973E-07 | 4.215E-05    |
| 2134 | 3.075E+04            | 1.877E-07 | 4.009E-05    |
| 2135 | 3.075E+04            | 1.786E-07 | 3.814E-05    |
| 2136 | 3.075E+04            | 1.698E-07 | 3.628E-05    |
| 2137 | 3.075E+04            | 1.616E-07 | 3.451E-05    |
| 2138 | 3.075E+04            | 1.537E-07 | 3.283E-05    |
| 2139 | 3.075E+04            | 1.462E-07 | 3.123E-05    |
| 2140 | 3.075E+04            | 1.391E-07 | 2.970E-05    |
| 2141 | 3.075E+04            | 1.323E-07 | 2.825E-05    |
| 2142 | 3.075E+04            | 1.258E-07 | 2.688E-05    |
| 2143 | 3.075E+04            | 1.197E-07 | 2.557E-05    |
| 2144 | 3.075E+04            | 1.139E-07 | 2.432E-05    |
| 2145 | 3.075E+04            | 1.083E-07 | 2.313E-05    |
| 2146 | 3.075E+04            | 1.030E-07 | 2.200E-05    |
| 2147 | 3.075E+04            | 9.799E-08 | 2.093E-05    |
| 2148 | 3.075E+04            | 9.321E-08 | 1.991E-05    |
| 2149 | 3.075E+04            | 8.867E-08 | 1.894E-05    |
| 2150 | 3.075E+04            | 8.434E-08 | 1.802E-05    |
| 2151 | 3.075E+04            | 8.023E-08 | 1.714E-05    |
| 2152 | 3.075E+04            | 7.632E-08 | 1.630E-05    |
| 2153 | 3.075E+04            | 7.259E-08 | 1.551E-05    |
| 2154 | 3.075E+04            | 6.905E-08 | 1.475E-05    |
| 2155 | 3.075E+04            | 6.569E-08 | 1.403E-05    |
| 2156 | 3.075E+04            | 6.248E-08 | 1.335E-05    |
| 2157 | 3.075E+04            | 5.944E-08 | 1.270E-05    |
| 2158 | 3.075E+04            | 5.654E-08 | 1.208E-05    |

continued

Table D-55. Emission Rate of Chlorobenzene from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.075E+04            | 5.378E-08 | 1.149E-05    |
| 2160 | 3.075E+04            | 5.116E-08 | 1.093E-05    |
| 2161 | 3.075E+04            | 4.866E-08 | 1.039E-05    |
| 2162 | 3.075E+04            | 4.629E-08 | 9.887E-06    |
| 2163 | 3.075E+04            | 4.403E-08 | 9.405E-06    |
| 2164 | 3.075E+04            | 4.188E-08 | 8.946E-06    |
| 2165 | 3.075E+04            | 3.984E-08 | 8.510E-06    |
| 2166 | 3.075E+04            | 3.790E-08 | 8.095E-06    |
| 2167 | 3.075E+04            | 3.605E-08 | 7.700E-06    |
| 2168 | 3.075E+04            | 3.429E-08 | 7.325E-06    |
| 2169 | 3.075E+04            | 3.262E-08 | 6.967E-06    |
| 2170 | 3.075E+04            | 3.103E-08 | 6.627E-06    |
| 2171 | 3.075E+04            | 2.951E-08 | 6.304E-06    |
| 2172 | 3.075E+04            | 2.808E-08 | 5.997E-06    |
| 2173 | 3.075E+04            | 2.671E-08 | 5.704E-06    |
| 2174 | 3.075E+04            | 2.540E-08 | 5.426E-06    |
| 2175 | 3.075E+04            | 2.416E-08 | 5.161E-06    |
| 2176 | 3.075E+04            | 2.299E-08 | 4.910E-06    |
| 2177 | 3.075E+04            | 2.186E-08 | 4.670E-06    |
| 2178 | 3.075E+04            | 2.080E-08 | 4.443E-06    |
| 2179 | 3.075E+04            | 1.978E-08 | 4.226E-06    |
| 2180 | 3.075E+04            | 1.882E-08 | 4.020E-06    |
| 2181 | 3.075E+04            | 1.790E-08 | 3.824E-06    |
| 2182 | 3.075E+04            | 1.703E-08 | 3.637E-06    |
| 2183 | 3.075E+04            | 1.620E-08 | 3.460E-06    |
| 2184 | 3.075E+04            | 1.541E-08 | 3.291E-06    |
| 2185 | 3.075E+04            | 1.466E-08 | 3.131E-06    |
| 2186 | 3.075E+04            | 1.394E-08 | 2.978E-06    |
| 2187 | 3.075E+04            | 1.326E-08 | 2.833E-06    |
| 2188 | 3.075E+04            | 1.261E-08 | 2.695E-06    |
| 2189 | 3.075E+04            | 1.200E-08 | 2.563E-06    |
| 2190 | 3.075E+04            | 1.141E-08 | 2.438E-06    |
| 2191 | 3.075E+04            | 1.086E-08 | 2.319E-06    |
| 2192 | 3.075E+04            | 1.033E-08 | 2.206E-06    |
| 2193 | 3.075E+04            | 9.825E-09 | 2.099E-06    |
| 2194 | 3.075E+04            | 9.345E-09 | 1.996E-06    |
| 2195 | 3.075E+04            | 8.890E-09 | 1.899E-06    |
| 2196 | 3.075E+04            | 8.456E-09 | 1.806E-06    |
| 2197 | 3.075E+04            | 8.044E-09 | 1.718E-06    |
| 2198 | 3.075E+04            | 7.651E-09 | 1.634E-06    |
| 2199 | 3.075E+04            | 7.278E-09 | 1.555E-06    |
| 2200 | 3.075E+04            | 6.923E-09 | 1.479E-06    |
| 2201 | 3.075E+04            | 6.586E-09 | 1.407E-06    |
| 2202 | 3.075E+04            | 6.264E-09 | 1.338E-06    |

Table D-56. Emission Rate of Chloroethane from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA4.PRM

=====  
 Model Parameters  
 =====

Lo : 170.00 m<sup>3</sup> / Mg  
 k : 0.0500 1/yr  
 NMOC : 1870.00 ppmv  
 Methane : 64.0000 % volume  
 Carbon Dioxide : 36.0000 % volume  
 Air Pollutant : Chloroethane (HAP/VOC)  
 Molecular Wt = 64.52      Concentration = 0.430000 ppmV

=====  
 Landfill Parameters  
 =====

Landfill type : Co-Disposal  
 Year Opened : 1974      Current Year : 2004      Closure Year: 2003  
 Capacity : 30752 Mg  
 Average Acceptance Rate Required from  
     Current Year to Closure Year : 5271.79 Mg/year

=====  
 Model Results  
 =====

| Year | Refuse In Place (Mg) | Chloroethane (HAP/VOC) Emission Rate (Mg/yr) | Emission Rate (Cubic m/yr) |
|------|----------------------|--|----------------------------|
| 1975 | 3.075E+03            | 4.713E-05                                    | 1.756E-02                  |
| 1976 | 6.150E+03            | 9.196E-05                                    | 3.427E-02                  |
| 1977 | 9.226E+03            | 1.346E-04                                    | 5.016E-02                  |
| 1978 | 1.230E+04            | 1.752E-04                                    | 6.528E-02                  |
| 1979 | 1.538E+04            | 2.138E-04                                    | 7.965E-02                  |
| 1980 | 1.845E+04            | 2.505E-04                                    | 9.333E-02                  |
| 1981 | 2.153E+04            | 2.854E-04                                    | 1.063E-01                  |
| 1982 | 2.460E+04            | 3.186E-04                                    | 1.187E-01                  |
| 1983 | 2.768E+04            | 3.502E-04                                    | 1.305E-01                  |
| 1984 | 3.075E+04            | 3.802E-04                                    | 1.417E-01                  |
| 1985 | 3.075E+04            | 3.617E-04                                    | 1.348E-01                  |
| 1986 | 3.075E+04            | 3.440E-04                                    | 1.282E-01                  |
| 1987 | 3.075E+04            | 3.273E-04                                    | 1.220E-01                  |
| 1988 | 3.075E+04            | 3.113E-04                                    | 1.160E-01                  |
| 1989 | 3.075E+04            | 2.961E-04                                    | 1.103E-01                  |
| 1990 | 3.075E+04            | 2.817E-04                                    | 1.050E-01                  |
| 1991 | 3.075E+04            | 2.679E-04                                    | 9.985E-02                  |
| 1992 | 3.075E+04            | 2.549E-04                                    | 9.498E-02                  |
| 1993 | 3.075E+04            | 2.424E-04                                    | 9.034E-02                  |
| 1994 | 3.075E+04            | 2.306E-04                                    | 8.594E-02                  |
| 1995 | 3.075E+04            | 2.194E-04                                    | 8.175E-02                  |
| 1996 | 3.075E+04            | 2.087E-04                                    | 7.776E-02                  |
| 1997 | 3.075E+04            | 1.985E-04                                    | 7.397E-02                  |
| 1998 | 3.075E+04            | 1.888E-04                                    | 7.036E-02                  |
| 1999 | 3.075E+04            | 1.796E-04                                    | 6.693E-02                  |
| 2000 | 3.075E+04            | 1.708E-04                                    | 6.366E-02                  |
| 2001 | 3.075E+04            | 1.625E-04                                    | 6.056E-02                  |
| 2002 | 3.075E+04            | 1.546E-04                                    | 5.761E-02                  |
| 2003 | 3.075E+04            | 1.471E-04                                    | 5.480E-02                  |
| 2004 | 3.075E+04            | 1.399E-04                                    | 5.212E-02                  |
| 2005 | 3.075E+04            | 1.331E-04                                    | 4.958E-02                  |
| 2006 | 3.075E+04            | 1.266E-04                                    | 4.716E-02                  |
| 2007 | 3.075E+04            | 1.204E-04                                    | 4.486E-02                  |
| 2008 | 3.075E+04            | 1.145E-04                                    | 4.268E-02                  |
| 2009 | 3.075E+04            | 1.089E-04                                    | 4.059E-02                  |
| 2010 | 3.075E+04            | 1.036E-04                                    | 3.861E-02                  |
| 2011 | 3.075E+04            | 9.857E-05                                    | 3.673E-02                  |
| 2012 | 3.075E+04            | 9.376E-05                                    | 3.494E-02                  |
| 2013 | 3.075E+04            | 8.919E-05                                    | 3.324E-02                  |
| 2014 | 3.075E+04            | 8.484E-05                                    | 3.161E-02                  |
| 2015 | 3.075E+04            | 8.070E-05                                    | 3.007E-02                  |
| 2016 | 3.075E+04            | 7.677E-05                                    | 2.861E-02                  |
| 2017 | 3.075E+04            | 7.302E-05                                    | 2.721E-02                  |
| 2018 | 3.075E+04            | 6.946E-05                                    | 2.588E-02                  |

continued

Table D-56. Emission Rate of Chloroethane from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.075E+04            | 6.607E-05 | 2.462E-02    |
| 2020 | 3.075E+04            | 6.285E-05 | 2.342E-02    |
| 2021 | 3.075E+04            | 5.979E-05 | 2.228E-02    |
| 2022 | 3.075E+04            | 5.687E-05 | 2.119E-02    |
| 2023 | 3.075E+04            | 5.410E-05 | 2.016E-02    |
| 2024 | 3.075E+04            | 5.146E-05 | 1.918E-02    |
| 2025 | 3.075E+04            | 4.895E-05 | 1.824E-02    |
| 2026 | 3.075E+04            | 4.656E-05 | 1.735E-02    |
| 2027 | 3.075E+04            | 4.429E-05 | 1.650E-02    |
| 2028 | 3.075E+04            | 4.213E-05 | 1.570E-02    |
| 2029 | 3.075E+04            | 4.008E-05 | 1.493E-02    |
| 2030 | 3.075E+04            | 3.812E-05 | 1.421E-02    |
| 2031 | 3.075E+04            | 3.626E-05 | 1.351E-02    |
| 2032 | 3.075E+04            | 3.449E-05 | 1.285E-02    |
| 2033 | 3.075E+04            | 3.281E-05 | 1.223E-02    |
| 2034 | 3.075E+04            | 3.121E-05 | 1.163E-02    |
| 2035 | 3.075E+04            | 2.969E-05 | 1.106E-02    |
| 2036 | 3.075E+04            | 2.824E-05 | 1.052E-02    |
| 2037 | 3.075E+04            | 2.686E-05 | 1.001E-02    |
| 2038 | 3.075E+04            | 2.555E-05 | 9.522E-03    |
| 2039 | 3.075E+04            | 2.431E-05 | 9.058E-03    |
| 2040 | 3.075E+04            | 2.312E-05 | 8.616E-03    |
| 2041 | 3.075E+04            | 2.199E-05 | 8.196E-03    |
| 2042 | 3.075E+04            | 2.092E-05 | 7.796E-03    |
| 2043 | 3.075E+04            | 1.990E-05 | 7.416E-03    |
| 2044 | 3.075E+04            | 1.893E-05 | 7.054E-03    |
| 2045 | 3.075E+04            | 1.801E-05 | 6.710E-03    |
| 2046 | 3.075E+04            | 1.713E-05 | 6.383E-03    |
| 2047 | 3.075E+04            | 1.629E-05 | 6.072E-03    |
| 2048 | 3.075E+04            | 1.550E-05 | 5.776E-03    |
| 2049 | 3.075E+04            | 1.474E-05 | 5.494E-03    |
| 2050 | 3.075E+04            | 1.402E-05 | 5.226E-03    |
| 2051 | 3.075E+04            | 1.334E-05 | 4.971E-03    |
| 2052 | 3.075E+04            | 1.269E-05 | 4.729E-03    |
| 2053 | 3.075E+04            | 1.207E-05 | 4.498E-03    |
| 2054 | 3.075E+04            | 1.148E-05 | 4.279E-03    |
| 2055 | 3.075E+04            | 1.092E-05 | 4.070E-03    |
| 2056 | 3.075E+04            | 1.039E-05 | 3.871E-03    |
| 2057 | 3.075E+04            | 9.883E-06 | 3.683E-03    |
| 2058 | 3.075E+04            | 9.401E-06 | 3.503E-03    |
| 2059 | 3.075E+04            | 8.942E-06 | 3.332E-03    |
| 2060 | 3.075E+04            | 8.506E-06 | 3.170E-03    |
| 2061 | 3.075E+04            | 8.091E-06 | 3.015E-03    |
| 2062 | 3.075E+04            | 7.697E-06 | 2.868E-03    |
| 2063 | 3.075E+04            | 7.321E-06 | 2.728E-03    |
| 2064 | 3.075E+04            | 6.964E-06 | 2.595E-03    |
| 2065 | 3.075E+04            | 6.625E-06 | 2.469E-03    |
| 2066 | 3.075E+04            | 6.301E-06 | 2.348E-03    |
| 2067 | 3.075E+04            | 5.994E-06 | 2.234E-03    |
| 2068 | 3.075E+04            | 5.702E-06 | 2.125E-03    |
| 2069 | 3.075E+04            | 5.424E-06 | 2.021E-03    |
| 2070 | 3.075E+04            | 5.159E-06 | 1.923E-03    |
| 2071 | 3.075E+04            | 4.908E-06 | 1.829E-03    |
| 2072 | 3.075E+04            | 4.668E-06 | 1.740E-03    |
| 2073 | 3.075E+04            | 4.441E-06 | 1.655E-03    |
| 2074 | 3.075E+04            | 4.224E-06 | 1.574E-03    |
| 2075 | 3.075E+04            | 4.018E-06 | 1.497E-03    |
| 2076 | 3.075E+04            | 3.822E-06 | 1.424E-03    |
| 2077 | 3.075E+04            | 3.636E-06 | 1.355E-03    |
| 2078 | 3.075E+04            | 3.458E-06 | 1.289E-03    |
| 2079 | 3.075E+04            | 3.290E-06 | 1.226E-03    |
| 2080 | 3.075E+04            | 3.129E-06 | 1.166E-03    |
| 2081 | 3.075E+04            | 2.977E-06 | 1.109E-03    |
| 2082 | 3.075E+04            | 2.831E-06 | 1.055E-03    |
| 2083 | 3.075E+04            | 2.693E-06 | 1.004E-03    |
| 2084 | 3.075E+04            | 2.562E-06 | 9.547E-04    |
| 2085 | 3.075E+04            | 2.437E-06 | 9.081E-04    |
| 2086 | 3.075E+04            | 2.318E-06 | 8.638E-04    |
| 2087 | 3.075E+04            | 2.205E-06 | 8.217E-04    |
| 2088 | 3.075E+04            | 2.098E-06 | 7.816E-04    |

continued



Table D-56. Emission Rate of Chloroethane from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.075E+04            | 1.995E-06 | 7.435E-04    |
| 2090 | 3.075E+04            | 1.898E-06 | 7.072E-04    |
| 2091 | 3.075E+04            | 1.805E-06 | 6.728E-04    |
| 2092 | 3.075E+04            | 1.717E-06 | 6.399E-04    |
| 2093 | 3.075E+04            | 1.634E-06 | 6.087E-04    |
| 2094 | 3.075E+04            | 1.554E-06 | 5.790E-04    |
| 2095 | 3.075E+04            | 1.478E-06 | 5.508E-04    |
| 2096 | 3.075E+04            | 1.406E-06 | 5.239E-04    |
| 2097 | 3.075E+04            | 1.337E-06 | 4.984E-04    |
| 2098 | 3.075E+04            | 1.272E-06 | 4.741E-04    |
| 2099 | 3.075E+04            | 1.210E-06 | 4.510E-04    |
| 2100 | 3.075E+04            | 1.151E-06 | 4.290E-04    |
| 2101 | 3.075E+04            | 1.095E-06 | 4.080E-04    |
| 2102 | 3.075E+04            | 1.042E-06 | 3.881E-04    |
| 2103 | 3.075E+04            | 9.908E-07 | 3.692E-04    |
| 2104 | 3.075E+04            | 9.425E-07 | 3.512E-04    |
| 2105 | 3.075E+04            | 8.965E-07 | 3.341E-04    |
| 2106 | 3.075E+04            | 8.528E-07 | 3.178E-04    |
| 2107 | 3.075E+04            | 8.112E-07 | 3.023E-04    |
| 2108 | 3.075E+04            | 7.716E-07 | 2.875E-04    |
| 2109 | 3.075E+04            | 7.340E-07 | 2.735E-04    |
| 2110 | 3.075E+04            | 6.982E-07 | 2.602E-04    |
| 2111 | 3.075E+04            | 6.642E-07 | 2.475E-04    |
| 2112 | 3.075E+04            | 6.318E-07 | 2.354E-04    |
| 2113 | 3.075E+04            | 6.010E-07 | 2.239E-04    |
| 2114 | 3.075E+04            | 5.717E-07 | 2.130E-04    |
| 2115 | 3.075E+04            | 5.438E-07 | 2.026E-04    |
| 2116 | 3.075E+04            | 5.173E-07 | 1.927E-04    |
| 2117 | 3.075E+04            | 4.920E-07 | 1.833E-04    |
| 2118 | 3.075E+04            | 4.680E-07 | 1.744E-04    |
| 2119 | 3.075E+04            | 4.452E-07 | 1.659E-04    |
| 2120 | 3.075E+04            | 4.235E-07 | 1.578E-04    |
| 2121 | 3.075E+04            | 4.028E-07 | 1.501E-04    |
| 2122 | 3.075E+04            | 3.832E-07 | 1.428E-04    |
| 2123 | 3.075E+04            | 3.645E-07 | 1.358E-04    |
| 2124 | 3.075E+04            | 3.467E-07 | 1.292E-04    |
| 2125 | 3.075E+04            | 3.298E-07 | 1.229E-04    |
| 2126 | 3.075E+04            | 3.137E-07 | 1.169E-04    |
| 2127 | 3.075E+04            | 2.984E-07 | 1.112E-04    |
| 2128 | 3.075E+04            | 2.839E-07 | 1.058E-04    |
| 2129 | 3.075E+04            | 2.700E-07 | 1.006E-04    |
| 2130 | 3.075E+04            | 2.569E-07 | 9.572E-05    |
| 2131 | 3.075E+04            | 2.443E-07 | 9.105E-05    |
| 2132 | 3.075E+04            | 2.324E-07 | 8.661E-05    |
| 2133 | 3.075E+04            | 2.211E-07 | 8.238E-05    |
| 2134 | 3.075E+04            | 2.103E-07 | 7.837E-05    |
| 2135 | 3.075E+04            | 2.000E-07 | 7.454E-05    |
| 2136 | 3.075E+04            | 1.903E-07 | 7.091E-05    |
| 2137 | 3.075E+04            | 1.810E-07 | 6.745E-05    |
| 2138 | 3.075E+04            | 1.722E-07 | 6.416E-05    |
| 2139 | 3.075E+04            | 1.638E-07 | 6.103E-05    |
| 2140 | 3.075E+04            | 1.558E-07 | 5.805E-05    |
| 2141 | 3.075E+04            | 1.482E-07 | 5.522E-05    |
| 2142 | 3.075E+04            | 1.410E-07 | 5.253E-05    |
| 2143 | 3.075E+04            | 1.341E-07 | 4.997E-05    |
| 2144 | 3.075E+04            | 1.276E-07 | 4.753E-05    |
| 2145 | 3.075E+04            | 1.213E-07 | 4.521E-05    |
| 2146 | 3.075E+04            | 1.154E-07 | 4.301E-05    |
| 2147 | 3.075E+04            | 1.098E-07 | 4.091E-05    |
| 2148 | 3.075E+04            | 1.044E-07 | 3.892E-05    |
| 2149 | 3.075E+04            | 9.934E-08 | 3.702E-05    |
| 2150 | 3.075E+04            | 9.449E-08 | 3.521E-05    |
| 2151 | 3.075E+04            | 8.988E-08 | 3.349E-05    |
| 2152 | 3.075E+04            | 8.550E-08 | 3.186E-05    |
| 2153 | 3.075E+04            | 8.133E-08 | 3.031E-05    |
| 2154 | 3.075E+04            | 7.736E-08 | 2.883E-05    |
| 2155 | 3.075E+04            | 7.359E-08 | 2.742E-05    |
| 2156 | 3.075E+04            | 7.000E-08 | 2.609E-05    |
| 2157 | 3.075E+04            | 6.659E-08 | 2.481E-05    |
| 2158 | 3.075E+04            | 6.334E-08 | 2.360E-05    |

continued

Table D-56. Emission Rate of Chloroethane from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.075E+04            | 6.025E-08 | 2.245E-05    |
| 2160 | 3.075E+04            | 5.731E-08 | 2.136E-05    |
| 2161 | 3.075E+04            | 5.452E-08 | 2.032E-05    |
| 2162 | 3.075E+04            | 5.186E-08 | 1.932E-05    |
| 2163 | 3.075E+04            | 4.933E-08 | 1.838E-05    |
| 2164 | 3.075E+04            | 4.692E-08 | 1.749E-05    |
| 2165 | 3.075E+04            | 4.464E-08 | 1.663E-05    |
| 2166 | 3.075E+04            | 4.246E-08 | 1.582E-05    |
| 2167 | 3.075E+04            | 4.039E-08 | 1.505E-05    |
| 2168 | 3.075E+04            | 3.842E-08 | 1.432E-05    |
| 2169 | 3.075E+04            | 3.654E-08 | 1.362E-05    |
| 2170 | 3.075E+04            | 3.476E-08 | 1.295E-05    |
| 2171 | 3.075E+04            | 3.307E-08 | 1.232E-05    |
| 2172 | 3.075E+04            | 3.145E-08 | 1.172E-05    |
| 2173 | 3.075E+04            | 2.992E-08 | 1.115E-05    |
| 2174 | 3.075E+04            | 2.846E-08 | 1.061E-05    |
| 2175 | 3.075E+04            | 2.707E-08 | 1.009E-05    |
| 2176 | 3.075E+04            | 2.575E-08 | 9.596E-06    |
| 2177 | 3.075E+04            | 2.450E-08 | 9.128E-06    |
| 2178 | 3.075E+04            | 2.330E-08 | 8.683E-06    |
| 2179 | 3.075E+04            | 2.217E-08 | 8.260E-06    |
| 2180 | 3.075E+04            | 2.108E-08 | 7.857E-06    |
| 2181 | 3.075E+04            | 2.006E-08 | 7.474E-06    |
| 2182 | 3.075E+04            | 1.908E-08 | 7.109E-06    |
| 2183 | 3.075E+04            | 1.815E-08 | 6.762E-06    |
| 2184 | 3.075E+04            | 1.726E-08 | 6.433E-06    |
| 2185 | 3.075E+04            | 1.642E-08 | 6.119E-06    |
| 2186 | 3.075E+04            | 1.562E-08 | 5.820E-06    |
| 2187 | 3.075E+04            | 1.486E-08 | 5.537E-06    |
| 2188 | 3.075E+04            | 1.413E-08 | 5.267E-06    |
| 2189 | 3.075E+04            | 1.344E-08 | 5.010E-06    |
| 2190 | 3.075E+04            | 1.279E-08 | 4.765E-06    |
| 2191 | 3.075E+04            | 1.216E-08 | 4.533E-06    |
| 2192 | 3.075E+04            | 1.157E-08 | 4.312E-06    |
| 2193 | 3.075E+04            | 1.101E-08 | 4.102E-06    |
| 2194 | 3.075E+04            | 1.047E-08 | 3.902E-06    |
| 2195 | 3.075E+04            | 9.960E-09 | 3.711E-06    |
| 2196 | 3.075E+04            | 9.474E-09 | 3.530E-06    |
| 2197 | 3.075E+04            | 9.012E-09 | 3.358E-06    |
| 2198 | 3.075E+04            | 8.572E-09 | 3.194E-06    |
| 2199 | 3.075E+04            | 8.154E-09 | 3.039E-06    |
| 2200 | 3.075E+04            | 7.756E-09 | 2.890E-06    |
| 2201 | 3.075E+04            | 7.378E-09 | 2.749E-06    |
| 2202 | 3.075E+04            | 7.018E-09 | 2.615E-06    |

Table D-57. Emission Rate of 1,4-Dichlorobenzene from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177-1.003\BUSHVA~1\STRATA4.PRM

```

=====
Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1870.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Dichlorobenzene (VOC/HAP for 1,4 isomer)
Molecular Wt = 147.00      Concentration =      0.080000 ppmV
=====
Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2003
Capacity : 30752 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 5271.79 Mg/year
=====
Model Results
=====
Year      Refuse In Place (Mg)      Dichlorobenzene (VOC/HAP for 1,4 isomer) Emission R
      (Mg/yr)      (Cubic m/yr)
=====
1975      3.075E+03      1.998E-05      3.267E-03
1976      6.150E+03      3.898E-05      6.375E-03
1977      9.226E+03      5.706E-05      9.332E-03
1978      1.230E+04      7.425E-05      1.214E-02
1979      1.538E+04      9.061E-05      1.482E-02
1980      1.845E+04      1.062E-04      1.736E-02
1981      2.153E+04      1.210E-04      1.978E-02
1982      2.460E+04      1.350E-04      2.209E-02
1983      2.768E+04      1.484E-04      2.428E-02
1984      3.075E+04      1.612E-04      2.636E-02
1985      3.075E+04      1.533E-04      2.507E-02
1986      3.075E+04      1.458E-04      2.385E-02
1987      3.075E+04      1.387E-04      2.269E-02
1988      3.075E+04      1.320E-04      2.158E-02
1989      3.075E+04      1.255E-04      2.053E-02
1990      3.075E+04      1.194E-04      1.953E-02
1991      3.075E+04      1.136E-04      1.858E-02
1992      3.075E+04      1.080E-04      1.767E-02
1993      3.075E+04      1.028E-04      1.681E-02
1994      3.075E+04      9.776E-05      1.599E-02
1995      3.075E+04      9.299E-05      1.521E-02
1996      3.075E+04      8.845E-05      1.447E-02
1997      3.075E+04      8.414E-05      1.376E-02
1998      3.075E+04      8.004E-05      1.309E-02
1999      3.075E+04      7.613E-05      1.245E-02
2000      3.075E+04      7.242E-05      1.184E-02
2001      3.075E+04      6.889E-05      1.127E-02
2002      3.075E+04      6.553E-05      1.072E-02
2003      3.075E+04      6.233E-05      1.019E-02
2004      3.075E+04      5.929E-05      9.698E-03
2005      3.075E+04      5.640E-05      9.225E-03
2006      3.075E+04      5.365E-05      8.775E-03
2007      3.075E+04      5.103E-05      8.347E-03
2008      3.075E+04      4.854E-05      7.940E-03
2009      3.075E+04      4.618E-05      7.552E-03
2010      3.075E+04      4.392E-05      7.184E-03
2011      3.075E+04      4.178E-05      6.834E-03
2012      3.075E+04      3.974E-05      6.500E-03
2013      3.075E+04      3.781E-05      6.183E-03
2014      3.075E+04      3.596E-05      5.882E-03
2015      3.075E+04      3.421E-05      5.595E-03
2016      3.075E+04      3.254E-05      5.322E-03
2017      3.075E+04      3.095E-05      5.063E-03
2018      3.075E+04      2.944E-05      4.816E-03
=====

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continued

Table D-57. Emission Rate of 1,4-Dichlorobenzene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.075E+04            | 2.801E-05 | 4.581E-03    |
| 2020 | 3.075E+04            | 2.664E-05 | 4.357E-03    |
| 2021 | 3.075E+04            | 2.534E-05 | 4.145E-03    |
| 2022 | 3.075E+04            | 2.411E-05 | 3.943E-03    |
| 2023 | 3.075E+04            | 2.293E-05 | 3.750E-03    |
| 2024 | 3.075E+04            | 2.181E-05 | 3.568E-03    |
| 2025 | 3.075E+04            | 2.075E-05 | 3.394E-03    |
| 2026 | 3.075E+04            | 1.974E-05 | 3.228E-03    |
| 2027 | 3.075E+04            | 1.877E-05 | 3.071E-03    |
| 2028 | 3.075E+04            | 1.786E-05 | 2.921E-03    |
| 2029 | 3.075E+04            | 1.699E-05 | 2.778E-03    |
| 2030 | 3.075E+04            | 1.616E-05 | 2.643E-03    |
| 2031 | 3.075E+04            | 1.537E-05 | 2.514E-03    |
| 2032 | 3.075E+04            | 1.462E-05 | 2.391E-03    |
| 2033 | 3.075E+04            | 1.391E-05 | 2.275E-03    |
| 2034 | 3.075E+04            | 1.323E-05 | 2.164E-03    |
| 2035 | 3.075E+04            | 1.258E-05 | 2.058E-03    |
| 2036 | 3.075E+04            | 1.197E-05 | 1.958E-03    |
| 2037 | 3.075E+04            | 1.139E-05 | 1.862E-03    |
| 2038 | 3.075E+04            | 1.083E-05 | 1.772E-03    |
| 2039 | 3.075E+04            | 1.030E-05 | 1.685E-03    |
| 2040 | 3.075E+04            | 9.801E-06 | 1.603E-03    |
| 2041 | 3.075E+04            | 9.323E-06 | 1.525E-03    |
| 2042 | 3.075E+04            | 8.868E-06 | 1.450E-03    |
| 2043 | 3.075E+04            | 8.436E-06 | 1.380E-03    |
| 2044 | 3.075E+04            | 8.024E-06 | 1.312E-03    |
| 2045 | 3.075E+04            | 7.633E-06 | 1.248E-03    |
| 2046 | 3.075E+04            | 7.261E-06 | 1.188E-03    |
| 2047 | 3.075E+04            | 6.907E-06 | 1.130E-03    |
| 2048 | 3.075E+04            | 6.570E-06 | 1.075E-03    |
| 2049 | 3.075E+04            | 6.249E-06 | 1.022E-03    |
| 2050 | 3.075E+04            | 5.945E-06 | 9.723E-04    |
| 2051 | 3.075E+04            | 5.655E-06 | 9.248E-04    |
| 2052 | 3.075E+04            | 5.379E-06 | 8.797E-04    |
| 2053 | 3.075E+04            | 5.117E-06 | 8.368E-04    |
| 2054 | 3.075E+04            | 4.867E-06 | 7.960E-04    |
| 2055 | 3.075E+04            | 4.630E-06 | 7.572E-04    |
| 2056 | 3.075E+04            | 4.404E-06 | 7.203E-04    |
| 2057 | 3.075E+04            | 4.189E-06 | 6.851E-04    |
| 2058 | 3.075E+04            | 3.985E-06 | 6.517E-04    |
| 2059 | 3.075E+04            | 3.790E-06 | 6.199E-04    |
| 2060 | 3.075E+04            | 3.606E-06 | 5.897E-04    |
| 2061 | 3.075E+04            | 3.430E-06 | 5.609E-04    |
| 2062 | 3.075E+04            | 3.262E-06 | 5.336E-04    |
| 2063 | 3.075E+04            | 3.103E-06 | 5.076E-04    |
| 2064 | 3.075E+04            | 2.952E-06 | 4.828E-04    |
| 2065 | 3.075E+04            | 2.808E-06 | 4.593E-04    |
| 2066 | 3.075E+04            | 2.671E-06 | 4.369E-04    |
| 2067 | 3.075E+04            | 2.541E-06 | 4.156E-04    |
| 2068 | 3.075E+04            | 2.417E-06 | 3.953E-04    |
| 2069 | 3.075E+04            | 2.299E-06 | 3.760E-04    |
| 2070 | 3.075E+04            | 2.187E-06 | 3.577E-04    |
| 2071 | 3.075E+04            | 2.080E-06 | 3.402E-04    |
| 2072 | 3.075E+04            | 1.979E-06 | 3.236E-04    |
| 2073 | 3.075E+04            | 1.882E-06 | 3.079E-04    |
| 2074 | 3.075E+04            | 1.790E-06 | 2.928E-04    |
| 2075 | 3.075E+04            | 1.703E-06 | 2.786E-04    |
| 2076 | 3.075E+04            | 1.620E-06 | 2.650E-04    |
| 2077 | 3.075E+04            | 1.541E-06 | 2.520E-04    |
| 2078 | 3.075E+04            | 1.466E-06 | 2.398E-04    |
| 2079 | 3.075E+04            | 1.394E-06 | 2.281E-04    |
| 2080 | 3.075E+04            | 1.326E-06 | 2.169E-04    |
| 2081 | 3.075E+04            | 1.262E-06 | 2.064E-04    |
| 2082 | 3.075E+04            | 1.200E-06 | 1.963E-04    |
| 2083 | 3.075E+04            | 1.142E-06 | 1.867E-04    |
| 2084 | 3.075E+04            | 1.086E-06 | 1.776E-04    |
| 2085 | 3.075E+04            | 1.033E-06 | 1.690E-04    |
| 2086 | 3.075E+04            | 9.826E-07 | 1.607E-04    |
| 2087 | 3.075E+04            | 9.347E-07 | 1.529E-04    |
| 2088 | 3.075E+04            | 8.891E-07 | 1.454E-04    |

continued

Table D-57. Emission Rate of 1,4-Dichlorobenzene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.075E+04            | 8.458E-07 | 1.383E-04    |
| 2090 | 3.075E+04            | 8.045E-07 | 1.316E-04    |
| 2091 | 3.075E+04            | 7.653E-07 | 1.252E-04    |
| 2092 | 3.075E+04            | 7.279E-07 | 1.191E-04    |
| 2093 | 3.075E+04            | 6.924E-07 | 1.133E-04    |
| 2094 | 3.075E+04            | 6.587E-07 | 1.077E-04    |
| 2095 | 3.075E+04            | 6.266E-07 | 1.025E-04    |
| 2096 | 3.075E+04            | 5.960E-07 | 9.748E-05    |
| 2097 | 3.075E+04            | 5.669E-07 | 9.272E-05    |
| 2098 | 3.075E+04            | 5.393E-07 | 8.820E-05    |
| 2099 | 3.075E+04            | 5.130E-07 | 8.390E-05    |
| 2100 | 3.075E+04            | 4.880E-07 | 7.981E-05    |
| 2101 | 3.075E+04            | 4.642E-07 | 7.592E-05    |
| 2102 | 3.075E+04            | 4.415E-07 | 7.221E-05    |
| 2103 | 3.075E+04            | 4.200E-07 | 6.869E-05    |
| 2104 | 3.075E+04            | 3.995E-07 | 6.534E-05    |
| 2105 | 3.075E+04            | 3.800E-07 | 6.215E-05    |
| 2106 | 3.075E+04            | 3.615E-07 | 5.912E-05    |
| 2107 | 3.075E+04            | 3.439E-07 | 5.624E-05    |
| 2108 | 3.075E+04            | 3.271E-07 | 5.350E-05    |
| 2109 | 3.075E+04            | 3.111E-07 | 5.089E-05    |
| 2110 | 3.075E+04            | 2.960E-07 | 4.841E-05    |
| 2111 | 3.075E+04            | 2.815E-07 | 4.605E-05    |
| 2112 | 3.075E+04            | 2.678E-07 | 4.380E-05    |
| 2113 | 3.075E+04            | 2.547E-07 | 4.166E-05    |
| 2114 | 3.075E+04            | 2.423E-07 | 3.963E-05    |
| 2115 | 3.075E+04            | 2.305E-07 | 3.770E-05    |
| 2116 | 3.075E+04            | 2.193E-07 | 3.586E-05    |
| 2117 | 3.075E+04            | 2.086E-07 | 3.411E-05    |
| 2118 | 3.075E+04            | 1.984E-07 | 3.245E-05    |
| 2119 | 3.075E+04            | 1.887E-07 | 3.087E-05    |
| 2120 | 3.075E+04            | 1.795E-07 | 2.936E-05    |
| 2121 | 3.075E+04            | 1.708E-07 | 2.793E-05    |
| 2122 | 3.075E+04            | 1.624E-07 | 2.657E-05    |
| 2123 | 3.075E+04            | 1.545E-07 | 2.527E-05    |
| 2124 | 3.075E+04            | 1.470E-07 | 2.404E-05    |
| 2125 | 3.075E+04            | 1.398E-07 | 2.287E-05    |
| 2126 | 3.075E+04            | 1.330E-07 | 2.175E-05    |
| 2127 | 3.075E+04            | 1.265E-07 | 2.069E-05    |
| 2128 | 3.075E+04            | 1.203E-07 | 1.968E-05    |
| 2129 | 3.075E+04            | 1.145E-07 | 1.872E-05    |
| 2130 | 3.075E+04            | 1.089E-07 | 1.781E-05    |
| 2131 | 3.075E+04            | 1.036E-07 | 1.694E-05    |
| 2132 | 3.075E+04            | 9.852E-08 | 1.611E-05    |
| 2133 | 3.075E+04            | 9.371E-08 | 1.533E-05    |
| 2134 | 3.075E+04            | 8.914E-08 | 1.458E-05    |
| 2135 | 3.075E+04            | 8.479E-08 | 1.387E-05    |
| 2136 | 3.075E+04            | 8.066E-08 | 1.319E-05    |
| 2137 | 3.075E+04            | 7.673E-08 | 1.255E-05    |
| 2138 | 3.075E+04            | 7.298E-08 | 1.194E-05    |
| 2139 | 3.075E+04            | 6.942E-08 | 1.135E-05    |
| 2140 | 3.075E+04            | 6.604E-08 | 1.080E-05    |
| 2141 | 3.075E+04            | 6.282E-08 | 1.027E-05    |
| 2142 | 3.075E+04            | 5.975E-08 | 9.773E-06    |
| 2143 | 3.075E+04            | 5.684E-08 | 9.296E-06    |
| 2144 | 3.075E+04            | 5.407E-08 | 8.843E-06    |
| 2145 | 3.075E+04            | 5.143E-08 | 8.412E-06    |
| 2146 | 3.075E+04            | 4.892E-08 | 8.001E-06    |
| 2147 | 3.075E+04            | 4.654E-08 | 7.611E-06    |
| 2148 | 3.075E+04            | 4.427E-08 | 7.240E-06    |
| 2149 | 3.075E+04            | 4.211E-08 | 6.887E-06    |
| 2150 | 3.075E+04            | 4.005E-08 | 6.551E-06    |
| 2151 | 3.075E+04            | 3.810E-08 | 6.232E-06    |
| 2152 | 3.075E+04            | 3.624E-08 | 5.928E-06    |
| 2153 | 3.075E+04            | 3.447E-08 | 5.639E-06    |
| 2154 | 3.075E+04            | 3.279E-08 | 5.364E-06    |
| 2155 | 3.075E+04            | 3.119E-08 | 5.102E-06    |
| 2156 | 3.075E+04            | 2.967E-08 | 4.853E-06    |
| 2157 | 3.075E+04            | 2.823E-08 | 4.616E-06    |
| 2158 | 3.075E+04            | 2.685E-08 | 4.391E-06    |

continued

Table D-57. Emission Rate of 1,4-Dichlorobenzene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.075E+04            | 2.554E-08 | 4.177E-06    |
| 2160 | 3.075E+04            | 2.429E-08 | 3.973E-06    |
| 2161 | 3.075E+04            | 2.311E-08 | 3.780E-06    |
| 2162 | 3.075E+04            | 2.198E-08 | 3.595E-06    |
| 2163 | 3.075E+04            | 2.091E-08 | 3.420E-06    |
| 2164 | 3.075E+04            | 1.989E-08 | 3.253E-06    |
| 2165 | 3.075E+04            | 1.892E-08 | 3.094E-06    |
| 2166 | 3.075E+04            | 1.800E-08 | 2.944E-06    |
| 2167 | 3.075E+04            | 1.712E-08 | 2.800E-06    |
| 2168 | 3.075E+04            | 1.628E-08 | 2.663E-06    |
| 2169 | 3.075E+04            | 1.549E-08 | 2.534E-06    |
| 2170 | 3.075E+04            | 1.474E-08 | 2.410E-06    |
| 2171 | 3.075E+04            | 1.402E-08 | 2.292E-06    |
| 2172 | 3.075E+04            | 1.333E-08 | 2.181E-06    |
| 2173 | 3.075E+04            | 1.268E-08 | 2.074E-06    |
| 2174 | 3.075E+04            | 1.206E-08 | 1.973E-06    |
| 2175 | 3.075E+04            | 1.148E-08 | 1.877E-06    |
| 2176 | 3.075E+04            | 1.092E-08 | 1.785E-06    |
| 2177 | 3.075E+04            | 1.038E-08 | 1.698E-06    |
| 2178 | 3.075E+04            | 9.877E-09 | 1.615E-06    |
| 2179 | 3.075E+04            | 9.395E-09 | 1.537E-06    |
| 2180 | 3.075E+04            | 8.937E-09 | 1.462E-06    |
| 2181 | 3.075E+04            | 8.501E-09 | 1.390E-06    |
| 2182 | 3.075E+04            | 8.087E-09 | 1.323E-06    |
| 2183 | 3.075E+04            | 7.692E-09 | 1.258E-06    |
| 2184 | 3.075E+04            | 7.317E-09 | 1.197E-06    |
| 2185 | 3.075E+04            | 6.960E-09 | 1.138E-06    |
| 2186 | 3.075E+04            | 6.621E-09 | 1.083E-06    |
| 2187 | 3.075E+04            | 6.298E-09 | 1.030E-06    |
| 2188 | 3.075E+04            | 5.991E-09 | 9.798E-07    |
| 2189 | 3.075E+04            | 5.699E-09 | 9.320E-07    |
| 2190 | 3.075E+04            | 5.421E-09 | 8.866E-07    |
| 2191 | 3.075E+04            | 5.156E-09 | 8.433E-07    |
| 2192 | 3.075E+04            | 4.905E-09 | 8.022E-07    |
| 2193 | 3.075E+04            | 4.666E-09 | 7.631E-07    |
| 2194 | 3.075E+04            | 4.438E-09 | 7.259E-07    |
| 2195 | 3.075E+04            | 4.222E-09 | 6.905E-07    |
| 2196 | 3.075E+04            | 4.016E-09 | 6.568E-07    |
| 2197 | 3.075E+04            | 3.820E-09 | 6.248E-07    |
| 2198 | 3.075E+04            | 3.634E-09 | 5.943E-07    |
| 2199 | 3.075E+04            | 3.456E-09 | 5.653E-07    |
| 2200 | 3.075E+04            | 3.288E-09 | 5.377E-07    |
| 2201 | 3.075E+04            | 3.127E-09 | 5.115E-07    |
| 2202 | 3.075E+04            | 2.975E-09 | 4.866E-07    |

Table D-58. Emission Rate of Methylene Chloride from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA4.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1870.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Methylene Chloride
Molecular Wt = 84.90      Concentration = 0.170000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2003
Capacity : 30752 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 5271.79 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      Methylene Chloride Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.075E+03      2.452E-05      6.943E-03
1976      6.150E+03      4.784E-05      1.355E-02
1977      9.226E+03      7.003E-05      1.983E-02
1978      1.230E+04      9.113E-05      2.581E-02
1979      1.538E+04      1.112E-04      3.149E-02
1980      1.845E+04      1.303E-04      3.690E-02
1981      2.153E+04      1.485E-04      4.204E-02
1982      2.460E+04      1.657E-04      4.694E-02
1983      2.768E+04      1.822E-04      5.159E-02
1984      3.075E+04      1.978E-04      5.602E-02
1985      3.075E+04      1.882E-04      5.328E-02
1986      3.075E+04      1.790E-04      5.069E-02
1987      3.075E+04      1.703E-04      4.821E-02
1988      3.075E+04      1.619E-04      4.586E-02
1989      3.075E+04      1.541E-04      4.363E-02
1990      3.075E+04      1.465E-04      4.150E-02
1991      3.075E+04      1.394E-04      3.947E-02
1992      3.075E+04      1.326E-04      3.755E-02
1993      3.075E+04      1.261E-04      3.572E-02
1994      3.075E+04      1.200E-04      3.398E-02
1995      3.075E+04      1.141E-04      3.232E-02
1996      3.075E+04      1.086E-04      3.074E-02
1997      3.075E+04      1.033E-04      2.924E-02
1998      3.075E+04      9.823E-05      2.782E-02
1999      3.075E+04      9.344E-05      2.646E-02
2000      3.075E+04      8.888E-05      2.517E-02
2001      3.075E+04      8.455E-05      2.394E-02
2002      3.075E+04      8.042E-05      2.277E-02
2003      3.075E+04      7.650E-05      2.166E-02
2004      3.075E+04      7.277E-05      2.061E-02
2005      3.075E+04      6.922E-05      1.960E-02
2006      3.075E+04      6.584E-05      1.865E-02
2007      3.075E+04      6.263E-05      1.774E-02
2008      3.075E+04      5.958E-05      1.687E-02
2009      3.075E+04      5.667E-05      1.605E-02
2010      3.075E+04      5.391E-05      1.527E-02
2011      3.075E+04      5.128E-05      1.452E-02
2012      3.075E+04      4.878E-05      1.381E-02
2013      3.075E+04      4.640E-05      1.314E-02
2014      3.075E+04      4.414E-05      1.250E-02
2015      3.075E+04      4.198E-05      1.189E-02
2016      3.075E+04      3.994E-05      1.131E-02
2017      3.075E+04      3.799E-05      1.076E-02
2018      3.075E+04      3.614E-05      1.023E-02
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continued

Table D-58. Emission Rate of Methylene Chloride from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.075E+04            | 3.437E-05 | 9.734E-03    |
| 2020 | 3.075E+04            | 3.270E-05 | 9.259E-03    |
| 2021 | 3.075E+04            | 3.110E-05 | 8.808E-03    |
| 2022 | 3.075E+04            | 2.959E-05 | 8.378E-03    |
| 2023 | 3.075E+04            | 2.814E-05 | 7.970E-03    |
| 2024 | 3.075E+04            | 2.677E-05 | 7.581E-03    |
| 2025 | 3.075E+04            | 2.546E-05 | 7.211E-03    |
| 2026 | 3.075E+04            | 2.422E-05 | 6.860E-03    |
| 2027 | 3.075E+04            | 2.304E-05 | 6.525E-03    |
| 2028 | 3.075E+04            | 2.192E-05 | 6.207E-03    |
| 2029 | 3.075E+04            | 2.085E-05 | 5.904E-03    |
| 2030 | 3.075E+04            | 1.983E-05 | 5.616E-03    |
| 2031 | 3.075E+04            | 1.886E-05 | 5.342E-03    |
| 2032 | 3.075E+04            | 1.794E-05 | 5.082E-03    |
| 2033 | 3.075E+04            | 1.707E-05 | 4.834E-03    |
| 2034 | 3.075E+04            | 1.624E-05 | 4.598E-03    |
| 2035 | 3.075E+04            | 1.545E-05 | 4.374E-03    |
| 2036 | 3.075E+04            | 1.469E-05 | 4.161E-03    |
| 2037 | 3.075E+04            | 1.398E-05 | 3.958E-03    |
| 2038 | 3.075E+04            | 1.329E-05 | 3.765E-03    |
| 2039 | 3.075E+04            | 1.265E-05 | 3.581E-03    |
| 2040 | 3.075E+04            | 1.203E-05 | 3.406E-03    |
| 2041 | 3.075E+04            | 1.144E-05 | 3.240E-03    |
| 2042 | 3.075E+04            | 1.088E-05 | 3.082E-03    |
| 2043 | 3.075E+04            | 1.035E-05 | 2.932E-03    |
| 2044 | 3.075E+04            | 9.848E-06 | 2.789E-03    |
| 2045 | 3.075E+04            | 9.368E-06 | 2.653E-03    |
| 2046 | 3.075E+04            | 8.911E-06 | 2.523E-03    |
| 2047 | 3.075E+04            | 8.476E-06 | 2.400E-03    |
| 2048 | 3.075E+04            | 8.063E-06 | 2.283E-03    |
| 2049 | 3.075E+04            | 7.670E-06 | 2.172E-03    |
| 2050 | 3.075E+04            | 7.296E-06 | 2.066E-03    |
| 2051 | 3.075E+04            | 6.940E-06 | 1.965E-03    |
| 2052 | 3.075E+04            | 6.601E-06 | 1.869E-03    |
| 2053 | 3.075E+04            | 6.279E-06 | 1.778E-03    |
| 2054 | 3.075E+04            | 5.973E-06 | 1.692E-03    |
| 2055 | 3.075E+04            | 5.682E-06 | 1.609E-03    |
| 2056 | 3.075E+04            | 5.405E-06 | 1.531E-03    |
| 2057 | 3.075E+04            | 5.141E-06 | 1.456E-03    |
| 2058 | 3.075E+04            | 4.890E-06 | 1.385E-03    |
| 2059 | 3.075E+04            | 4.652E-06 | 1.317E-03    |
| 2060 | 3.075E+04            | 4.425E-06 | 1.253E-03    |
| 2061 | 3.075E+04            | 4.209E-06 | 1.192E-03    |
| 2062 | 3.075E+04            | 4.004E-06 | 1.134E-03    |
| 2063 | 3.075E+04            | 3.809E-06 | 1.079E-03    |
| 2064 | 3.075E+04            | 3.623E-06 | 1.026E-03    |
| 2065 | 3.075E+04            | 3.446E-06 | 9.759E-04    |
| 2066 | 3.075E+04            | 3.278E-06 | 9.283E-04    |
| 2067 | 3.075E+04            | 3.118E-06 | 8.831E-04    |
| 2068 | 3.075E+04            | 2.966E-06 | 8.400E-04    |
| 2069 | 3.075E+04            | 2.822E-06 | 7.990E-04    |
| 2070 | 3.075E+04            | 2.684E-06 | 7.601E-04    |
| 2071 | 3.075E+04            | 2.553E-06 | 7.230E-04    |
| 2072 | 3.075E+04            | 2.429E-06 | 6.877E-04    |
| 2073 | 3.075E+04            | 2.310E-06 | 6.542E-04    |
| 2074 | 3.075E+04            | 2.197E-06 | 6.223E-04    |
| 2075 | 3.075E+04            | 2.090E-06 | 5.919E-04    |
| 2076 | 3.075E+04            | 1.988E-06 | 5.631E-04    |
| 2077 | 3.075E+04            | 1.891E-06 | 5.356E-04    |
| 2078 | 3.075E+04            | 1.799E-06 | 5.095E-04    |
| 2079 | 3.075E+04            | 1.711E-06 | 4.846E-04    |
| 2080 | 3.075E+04            | 1.628E-06 | 4.610E-04    |
| 2081 | 3.075E+04            | 1.549E-06 | 4.385E-04    |
| 2082 | 3.075E+04            | 1.473E-06 | 4.171E-04    |
| 2083 | 3.075E+04            | 1.401E-06 | 3.968E-04    |
| 2084 | 3.075E+04            | 1.333E-06 | 3.774E-04    |
| 2085 | 3.075E+04            | 1.268E-06 | 3.590E-04    |
| 2086 | 3.075E+04            | 1.206E-06 | 3.415E-04    |
| 2087 | 3.075E+04            | 1.147E-06 | 3.249E-04    |
| 2088 | 3.075E+04            | 1.091E-06 | 3.090E-04    |

continued



Table D-58. Emission Rate of Methylene Chloride from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.075E+04            | 1.038E-06 | 2.939E-04    |
| 2090 | 3.075E+04            | 9.874E-07 | 2.796E-04    |
| 2091 | 3.075E+04            | 9.392E-07 | 2.660E-04    |
| 2092 | 3.075E+04            | 8.934E-07 | 2.530E-04    |
| 2093 | 3.075E+04            | 8.498E-07 | 2.407E-04    |
| 2094 | 3.075E+04            | 8.084E-07 | 2.289E-04    |
| 2095 | 3.075E+04            | 7.690E-07 | 2.178E-04    |
| 2096 | 3.075E+04            | 7.315E-07 | 2.071E-04    |
| 2097 | 3.075E+04            | 6.958E-07 | 1.970E-04    |
| 2098 | 3.075E+04            | 6.619E-07 | 1.874E-04    |
| 2099 | 3.075E+04            | 6.296E-07 | 1.783E-04    |
| 2100 | 3.075E+04            | 5.989E-07 | 1.696E-04    |
| 2101 | 3.075E+04            | 5.697E-07 | 1.613E-04    |
| 2102 | 3.075E+04            | 5.419E-07 | 1.535E-04    |
| 2103 | 3.075E+04            | 5.155E-07 | 1.460E-04    |
| 2104 | 3.075E+04            | 4.903E-07 | 1.389E-04    |
| 2105 | 3.075E+04            | 4.664E-07 | 1.321E-04    |
| 2106 | 3.075E+04            | 4.437E-07 | 1.256E-04    |
| 2107 | 3.075E+04            | 4.220E-07 | 1.195E-04    |
| 2108 | 3.075E+04            | 4.014E-07 | 1.137E-04    |
| 2109 | 3.075E+04            | 3.819E-07 | 1.081E-04    |
| 2110 | 3.075E+04            | 3.632E-07 | 1.029E-04    |
| 2111 | 3.075E+04            | 3.455E-07 | 9.785E-05    |
| 2112 | 3.075E+04            | 3.287E-07 | 9.307E-05    |
| 2113 | 3.075E+04            | 3.126E-07 | 8.853E-05    |
| 2114 | 3.075E+04            | 2.974E-07 | 8.422E-05    |
| 2115 | 3.075E+04            | 2.829E-07 | 8.011E-05    |
| 2116 | 3.075E+04            | 2.691E-07 | 7.620E-05    |
| 2117 | 3.075E+04            | 2.560E-07 | 7.249E-05    |
| 2118 | 3.075E+04            | 2.435E-07 | 6.895E-05    |
| 2119 | 3.075E+04            | 2.316E-07 | 6.559E-05    |
| 2120 | 3.075E+04            | 2.203E-07 | 6.239E-05    |
| 2121 | 3.075E+04            | 2.096E-07 | 5.935E-05    |
| 2122 | 3.075E+04            | 1.993E-07 | 5.645E-05    |
| 2123 | 3.075E+04            | 1.896E-07 | 5.370E-05    |
| 2124 | 3.075E+04            | 1.804E-07 | 5.108E-05    |
| 2125 | 3.075E+04            | 1.716E-07 | 4.859E-05    |
| 2126 | 3.075E+04            | 1.632E-07 | 4.622E-05    |
| 2127 | 3.075E+04            | 1.553E-07 | 4.397E-05    |
| 2128 | 3.075E+04            | 1.477E-07 | 4.182E-05    |
| 2129 | 3.075E+04            | 1.405E-07 | 3.978E-05    |
| 2130 | 3.075E+04            | 1.336E-07 | 3.784E-05    |
| 2131 | 3.075E+04            | 1.271E-07 | 3.600E-05    |
| 2132 | 3.075E+04            | 1.209E-07 | 3.424E-05    |
| 2133 | 3.075E+04            | 1.150E-07 | 3.257E-05    |
| 2134 | 3.075E+04            | 1.094E-07 | 3.098E-05    |
| 2135 | 3.075E+04            | 1.041E-07 | 2.947E-05    |
| 2136 | 3.075E+04            | 9.899E-08 | 2.803E-05    |
| 2137 | 3.075E+04            | 9.416E-08 | 2.667E-05    |
| 2138 | 3.075E+04            | 8.957E-08 | 2.537E-05    |
| 2139 | 3.075E+04            | 8.520E-08 | 2.413E-05    |
| 2140 | 3.075E+04            | 8.105E-08 | 2.295E-05    |
| 2141 | 3.075E+04            | 7.710E-08 | 2.183E-05    |
| 2142 | 3.075E+04            | 7.334E-08 | 2.077E-05    |
| 2143 | 3.075E+04            | 6.976E-08 | 1.975E-05    |
| 2144 | 3.075E+04            | 6.636E-08 | 1.879E-05    |
| 2145 | 3.075E+04            | 6.312E-08 | 1.787E-05    |
| 2146 | 3.075E+04            | 6.004E-08 | 1.700E-05    |
| 2147 | 3.075E+04            | 5.711E-08 | 1.617E-05    |
| 2148 | 3.075E+04            | 5.433E-08 | 1.539E-05    |
| 2149 | 3.075E+04            | 5.168E-08 | 1.463E-05    |
| 2150 | 3.075E+04            | 4.916E-08 | 1.392E-05    |
| 2151 | 3.075E+04            | 4.676E-08 | 1.324E-05    |
| 2152 | 3.075E+04            | 4.448E-08 | 1.260E-05    |
| 2153 | 3.075E+04            | 4.231E-08 | 1.198E-05    |
| 2154 | 3.075E+04            | 4.025E-08 | 1.140E-05    |
| 2155 | 3.075E+04            | 3.828E-08 | 1.084E-05    |
| 2156 | 3.075E+04            | 3.642E-08 | 1.031E-05    |
| 2157 | 3.075E+04            | 3.464E-08 | 9.810E-06    |
| 2158 | 3.075E+04            | 3.295E-08 | 9.332E-06    |

continued

Table D-58. Emission Rate of Methylene Chloride from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.075E+04            | 3.134E-08 | 8.876E-06    |
| 2160 | 3.075E+04            | 2.982E-08 | 8.443E-06    |
| 2161 | 3.075E+04            | 2.836E-08 | 8.032E-06    |
| 2162 | 3.075E+04            | 2.698E-08 | 7.640E-06    |
| 2163 | 3.075E+04            | 2.566E-08 | 7.267E-06    |
| 2164 | 3.075E+04            | 2.441E-08 | 6.913E-06    |
| 2165 | 3.075E+04            | 2.322E-08 | 6.576E-06    |
| 2166 | 3.075E+04            | 2.209E-08 | 6.255E-06    |
| 2167 | 3.075E+04            | 2.101E-08 | 5.950E-06    |
| 2168 | 3.075E+04            | 1.999E-08 | 5.660E-06    |
| 2169 | 3.075E+04            | 1.901E-08 | 5.384E-06    |
| 2170 | 3.075E+04            | 1.808E-08 | 5.121E-06    |
| 2171 | 3.075E+04            | 1.720E-08 | 4.871E-06    |
| 2172 | 3.075E+04            | 1.636E-08 | 4.634E-06    |
| 2173 | 3.075E+04            | 1.557E-08 | 4.408E-06    |
| 2174 | 3.075E+04            | 1.481E-08 | 4.193E-06    |
| 2175 | 3.075E+04            | 1.408E-08 | 3.988E-06    |
| 2176 | 3.075E+04            | 1.340E-08 | 3.794E-06    |
| 2177 | 3.075E+04            | 1.274E-08 | 3.609E-06    |
| 2178 | 3.075E+04            | 1.212E-08 | 3.433E-06    |
| 2179 | 3.075E+04            | 1.153E-08 | 3.265E-06    |
| 2180 | 3.075E+04            | 1.097E-08 | 3.106E-06    |
| 2181 | 3.075E+04            | 1.043E-08 | 2.955E-06    |
| 2182 | 3.075E+04            | 9.925E-09 | 2.811E-06    |
| 2183 | 3.075E+04            | 9.441E-09 | 2.674E-06    |
| 2184 | 3.075E+04            | 8.980E-09 | 2.543E-06    |
| 2185 | 3.075E+04            | 8.542E-09 | 2.419E-06    |
| 2186 | 3.075E+04            | 8.126E-09 | 2.301E-06    |
| 2187 | 3.075E+04            | 7.729E-09 | 2.189E-06    |
| 2188 | 3.075E+04            | 7.353E-09 | 2.082E-06    |
| 2189 | 3.075E+04            | 6.994E-09 | 1.981E-06    |
| 2190 | 3.075E+04            | 6.653E-09 | 1.884E-06    |
| 2191 | 3.075E+04            | 6.328E-09 | 1.792E-06    |
| 2192 | 3.075E+04            | 6.020E-09 | 1.705E-06    |
| 2193 | 3.075E+04            | 5.726E-09 | 1.622E-06    |
| 2194 | 3.075E+04            | 5.447E-09 | 1.542E-06    |
| 2195 | 3.075E+04            | 5.181E-09 | 1.467E-06    |
| 2196 | 3.075E+04            | 4.929E-09 | 1.396E-06    |
| 2197 | 3.075E+04            | 4.688E-09 | 1.328E-06    |
| 2198 | 3.075E+04            | 4.460E-09 | 1.263E-06    |
| 2199 | 3.075E+04            | 4.242E-09 | 1.201E-06    |
| 2200 | 3.075E+04            | 4.035E-09 | 1.143E-06    |
| 2201 | 3.075E+04            | 3.838E-09 | 1.087E-06    |
| 2202 | 3.075E+04            | 3.651E-09 | 1.034E-06    |

Table D-59. Emission Rate of Tetrachloroethene from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA4.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1870.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Tetrachloroethene
Molecular Wt = 165.83      Concentration =      0.900000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2003
Capacity : 30752 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 5271.79 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      Tetrachloroethene Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.075E+03      2.535E-04      3.676E-02
1976      6.150E+03      4.947E-04      7.172E-02
1977      9.226E+03      7.241E-04      1.050E-01
1978      1.230E+04      9.423E-04      1.366E-01
1979      1.538E+04      1.150E-03      1.667E-01
1980      1.845E+04      1.347E-03      1.953E-01
1981      2.153E+04      1.535E-03      2.226E-01
1982      2.460E+04      1.714E-03      2.485E-01
1983      2.768E+04      1.884E-03      2.731E-01
1984      3.075E+04      2.045E-03      2.966E-01
1985      3.075E+04      1.946E-03      2.821E-01
1986      3.075E+04      1.851E-03      2.683E-01
1987      3.075E+04      1.761E-03      2.552E-01
1988      3.075E+04      1.675E-03      2.428E-01
1989      3.075E+04      1.593E-03      2.310E-01
1990      3.075E+04      1.515E-03      2.197E-01
1991      3.075E+04      1.441E-03      2.090E-01
1992      3.075E+04      1.371E-03      1.988E-01
1993      3.075E+04      1.304E-03      1.891E-01
1994      3.075E+04      1.241E-03      1.799E-01
1995      3.075E+04      1.180E-03      1.711E-01
1996      3.075E+04      1.123E-03      1.628E-01
1997      3.075E+04      1.068E-03      1.548E-01
1998      3.075E+04      1.016E-03      1.473E-01
1999      3.075E+04      9.662E-04      1.401E-01
2000      3.075E+04      9.191E-04      1.333E-01
2001      3.075E+04      8.743E-04      1.268E-01
2002      3.075E+04      8.316E-04      1.206E-01
2003      3.075E+04      7.911E-04      1.147E-01
2004      3.075E+04      7.525E-04      1.091E-01
2005      3.075E+04      7.158E-04      1.038E-01
2006      3.075E+04      6.809E-04      9.872E-02
2007      3.075E+04      6.477E-04      9.390E-02
2008      3.075E+04      6.161E-04      8.932E-02
2009      3.075E+04      5.860E-04      8.496E-02
2010      3.075E+04      5.574E-04      8.082E-02
2011      3.075E+04      5.303E-04      7.688E-02
2012      3.075E+04      5.044E-04      7.313E-02
2013      3.075E+04      4.798E-04      6.956E-02
2014      3.075E+04      4.564E-04      6.617E-02
2015      3.075E+04      4.341E-04      6.294E-02
2016      3.075E+04      4.130E-04      5.987E-02
2017      3.075E+04      3.928E-04      5.695E-02
2018      3.075E+04      3.737E-04      5.418E-02
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continued

Table D-59. Emission Rate of Tetrachloroethene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.075E+04            | 3.554E-04 | 5.153E-02    |
| 2020 | 3.075E+04            | 3.381E-04 | 4.902E-02    |
| 2021 | 3.075E+04            | 3.216E-04 | 4.663E-02    |
| 2022 | 3.075E+04            | 3.059E-04 | 4.436E-02    |
| 2023 | 3.075E+04            | 2.910E-04 | 4.219E-02    |
| 2024 | 3.075E+04            | 2.768E-04 | 4.013E-02    |
| 2025 | 3.075E+04            | 2.633E-04 | 3.818E-02    |
| 2026 | 3.075E+04            | 2.505E-04 | 3.632E-02    |
| 2027 | 3.075E+04            | 2.383E-04 | 3.454E-02    |
| 2028 | 3.075E+04            | 2.266E-04 | 3.286E-02    |
| 2029 | 3.075E+04            | 2.156E-04 | 3.126E-02    |
| 2030 | 3.075E+04            | 2.051E-04 | 2.973E-02    |
| 2031 | 3.075E+04            | 1.951E-04 | 2.828E-02    |
| 2032 | 3.075E+04            | 1.856E-04 | 2.690E-02    |
| 2033 | 3.075E+04            | 1.765E-04 | 2.559E-02    |
| 2034 | 3.075E+04            | 1.679E-04 | 2.434E-02    |
| 2035 | 3.075E+04            | 1.597E-04 | 2.316E-02    |
| 2036 | 3.075E+04            | 1.519E-04 | 2.203E-02    |
| 2037 | 3.075E+04            | 1.445E-04 | 2.095E-02    |
| 2038 | 3.075E+04            | 1.375E-04 | 1.993E-02    |
| 2039 | 3.075E+04            | 1.308E-04 | 1.896E-02    |
| 2040 | 3.075E+04            | 1.244E-04 | 1.803E-02    |
| 2041 | 3.075E+04            | 1.183E-04 | 1.715E-02    |
| 2042 | 3.075E+04            | 1.125E-04 | 1.632E-02    |
| 2043 | 3.075E+04            | 1.071E-04 | 1.552E-02    |
| 2044 | 3.075E+04            | 1.018E-04 | 1.476E-02    |
| 2045 | 3.075E+04            | 9.687E-05 | 1.404E-02    |
| 2046 | 3.075E+04            | 9.215E-05 | 1.336E-02    |
| 2047 | 3.075E+04            | 8.765E-05 | 1.271E-02    |
| 2048 | 3.075E+04            | 8.338E-05 | 1.209E-02    |
| 2049 | 3.075E+04            | 7.931E-05 | 1.150E-02    |
| 2050 | 3.075E+04            | 7.544E-05 | 1.094E-02    |
| 2051 | 3.075E+04            | 7.176E-05 | 1.040E-02    |
| 2052 | 3.075E+04            | 6.826E-05 | 9.897E-03    |
| 2053 | 3.075E+04            | 6.493E-05 | 9.414E-03    |
| 2054 | 3.075E+04            | 6.177E-05 | 8.955E-03    |
| 2055 | 3.075E+04            | 5.875E-05 | 8.518E-03    |
| 2056 | 3.075E+04            | 5.589E-05 | 8.103E-03    |
| 2057 | 3.075E+04            | 5.316E-05 | 7.708E-03    |
| 2058 | 3.075E+04            | 5.057E-05 | 7.332E-03    |
| 2059 | 3.075E+04            | 4.810E-05 | 6.974E-03    |
| 2060 | 3.075E+04            | 4.576E-05 | 6.634E-03    |
| 2061 | 3.075E+04            | 4.353E-05 | 6.311E-03    |
| 2062 | 3.075E+04            | 4.140E-05 | 6.003E-03    |
| 2063 | 3.075E+04            | 3.938E-05 | 5.710E-03    |
| 2064 | 3.075E+04            | 3.746E-05 | 5.432E-03    |
| 2065 | 3.075E+04            | 3.564E-05 | 5.167E-03    |
| 2066 | 3.075E+04            | 3.390E-05 | 4.915E-03    |
| 2067 | 3.075E+04            | 3.225E-05 | 4.675E-03    |
| 2068 | 3.075E+04            | 3.067E-05 | 4.447E-03    |
| 2069 | 3.075E+04            | 2.918E-05 | 4.230E-03    |
| 2070 | 3.075E+04            | 2.775E-05 | 4.024E-03    |
| 2071 | 3.075E+04            | 2.640E-05 | 3.828E-03    |
| 2072 | 3.075E+04            | 2.511E-05 | 3.641E-03    |
| 2073 | 3.075E+04            | 2.389E-05 | 3.463E-03    |
| 2074 | 3.075E+04            | 2.272E-05 | 3.294E-03    |
| 2075 | 3.075E+04            | 2.161E-05 | 3.134E-03    |
| 2076 | 3.075E+04            | 2.056E-05 | 2.981E-03    |
| 2077 | 3.075E+04            | 1.956E-05 | 2.836E-03    |
| 2078 | 3.075E+04            | 1.860E-05 | 2.697E-03    |
| 2079 | 3.075E+04            | 1.770E-05 | 2.566E-03    |
| 2080 | 3.075E+04            | 1.683E-05 | 2.441E-03    |
| 2081 | 3.075E+04            | 1.601E-05 | 2.322E-03    |
| 2082 | 3.075E+04            | 1.523E-05 | 2.208E-03    |
| 2083 | 3.075E+04            | 1.449E-05 | 2.101E-03    |
| 2084 | 3.075E+04            | 1.378E-05 | 1.998E-03    |
| 2085 | 3.075E+04            | 1.311E-05 | 1.901E-03    |
| 2086 | 3.075E+04            | 1.247E-05 | 1.808E-03    |
| 2087 | 3.075E+04            | 1.186E-05 | 1.720E-03    |
| 2088 | 3.075E+04            | 1.128E-05 | 1.636E-03    |

continued

Table D-59. Emission Rate of Tetrachloroethene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.075E+04            | 1.073E-05 | 1.556E-03    |
| 2090 | 3.075E+04            | 1.021E-05 | 1.480E-03    |
| 2091 | 3.075E+04            | 9.712E-06 | 1.408E-03    |
| 2092 | 3.075E+04            | 9.238E-06 | 1.339E-03    |
| 2093 | 3.075E+04            | 8.788E-06 | 1.274E-03    |
| 2094 | 3.075E+04            | 8.359E-06 | 1.212E-03    |
| 2095 | 3.075E+04            | 7.952E-06 | 1.153E-03    |
| 2096 | 3.075E+04            | 7.564E-06 | 1.097E-03    |
| 2097 | 3.075E+04            | 7.195E-06 | 1.043E-03    |
| 2098 | 3.075E+04            | 6.844E-06 | 9.923E-04    |
| 2099 | 3.075E+04            | 6.510E-06 | 9.439E-04    |
| 2100 | 3.075E+04            | 6.193E-06 | 8.978E-04    |
| 2101 | 3.075E+04            | 5.891E-06 | 8.541E-04    |
| 2102 | 3.075E+04            | 5.603E-06 | 8.124E-04    |
| 2103 | 3.075E+04            | 5.330E-06 | 7.728E-04    |
| 2104 | 3.075E+04            | 5.070E-06 | 7.351E-04    |
| 2105 | 3.075E+04            | 4.823E-06 | 6.992E-04    |
| 2106 | 3.075E+04            | 4.588E-06 | 6.651E-04    |
| 2107 | 3.075E+04            | 4.364E-06 | 6.327E-04    |
| 2108 | 3.075E+04            | 4.151E-06 | 6.018E-04    |
| 2109 | 3.075E+04            | 3.949E-06 | 5.725E-04    |
| 2110 | 3.075E+04            | 3.756E-06 | 5.446E-04    |
| 2111 | 3.075E+04            | 3.573E-06 | 5.180E-04    |
| 2112 | 3.075E+04            | 3.399E-06 | 4.927E-04    |
| 2113 | 3.075E+04            | 3.233E-06 | 4.687E-04    |
| 2114 | 3.075E+04            | 3.075E-06 | 4.459E-04    |
| 2115 | 3.075E+04            | 2.925E-06 | 4.241E-04    |
| 2116 | 3.075E+04            | 2.783E-06 | 4.034E-04    |
| 2117 | 3.075E+04            | 2.647E-06 | 3.838E-04    |
| 2118 | 3.075E+04            | 2.518E-06 | 3.650E-04    |
| 2119 | 3.075E+04            | 2.395E-06 | 3.472E-04    |
| 2120 | 3.075E+04            | 2.278E-06 | 3.303E-04    |
| 2121 | 3.075E+04            | 2.167E-06 | 3.142E-04    |
| 2122 | 3.075E+04            | 2.061E-06 | 2.989E-04    |
| 2123 | 3.075E+04            | 1.961E-06 | 2.843E-04    |
| 2124 | 3.075E+04            | 1.865E-06 | 2.704E-04    |
| 2125 | 3.075E+04            | 1.774E-06 | 2.572E-04    |
| 2126 | 3.075E+04            | 1.688E-06 | 2.447E-04    |
| 2127 | 3.075E+04            | 1.605E-06 | 2.328E-04    |
| 2128 | 3.075E+04            | 1.527E-06 | 2.214E-04    |
| 2129 | 3.075E+04            | 1.453E-06 | 2.106E-04    |
| 2130 | 3.075E+04            | 1.382E-06 | 2.003E-04    |
| 2131 | 3.075E+04            | 1.314E-06 | 1.906E-04    |
| 2132 | 3.075E+04            | 1.250E-06 | 1.813E-04    |
| 2133 | 3.075E+04            | 1.189E-06 | 1.724E-04    |
| 2134 | 3.075E+04            | 1.131E-06 | 1.640E-04    |
| 2135 | 3.075E+04            | 1.076E-06 | 1.560E-04    |
| 2136 | 3.075E+04            | 1.024E-06 | 1.484E-04    |
| 2137 | 3.075E+04            | 9.737E-07 | 1.412E-04    |
| 2138 | 3.075E+04            | 9.262E-07 | 1.343E-04    |
| 2139 | 3.075E+04            | 8.811E-07 | 1.277E-04    |
| 2140 | 3.075E+04            | 8.381E-07 | 1.215E-04    |
| 2141 | 3.075E+04            | 7.972E-07 | 1.156E-04    |
| 2142 | 3.075E+04            | 7.583E-07 | 1.099E-04    |
| 2143 | 3.075E+04            | 7.214E-07 | 1.046E-04    |
| 2144 | 3.075E+04            | 6.862E-07 | 9.948E-05    |
| 2145 | 3.075E+04            | 6.527E-07 | 9.463E-05    |
| 2146 | 3.075E+04            | 6.209E-07 | 9.002E-05    |
| 2147 | 3.075E+04            | 5.906E-07 | 8.563E-05    |
| 2148 | 3.075E+04            | 5.618E-07 | 8.145E-05    |
| 2149 | 3.075E+04            | 5.344E-07 | 7.748E-05    |
| 2150 | 3.075E+04            | 5.083E-07 | 7.370E-05    |
| 2151 | 3.075E+04            | 4.835E-07 | 7.010E-05    |
| 2152 | 3.075E+04            | 4.600E-07 | 6.669E-05    |
| 2153 | 3.075E+04            | 4.375E-07 | 6.343E-05    |
| 2154 | 3.075E+04            | 4.162E-07 | 6.034E-05    |
| 2155 | 3.075E+04            | 3.959E-07 | 5.740E-05    |
| 2156 | 3.075E+04            | 3.766E-07 | 5.460E-05    |
| 2157 | 3.075E+04            | 3.582E-07 | 5.193E-05    |
| 2158 | 3.075E+04            | 3.407E-07 | 4.940E-05    |

continued

Table D-59. Emission Rate of Tetrachloroethene from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.075E+04            | 3.241E-07 | 4.699E-05    |
| 2160 | 3.075E+04            | 3.083E-07 | 4.470E-05    |
| 2161 | 3.075E+04            | 2.933E-07 | 4.252E-05    |
| 2162 | 3.075E+04            | 2.790E-07 | 4.045E-05    |
| 2163 | 3.075E+04            | 2.654E-07 | 3.847E-05    |
| 2164 | 3.075E+04            | 2.524E-07 | 3.660E-05    |
| 2165 | 3.075E+04            | 2.401E-07 | 3.481E-05    |
| 2166 | 3.075E+04            | 2.284E-07 | 3.312E-05    |
| 2167 | 3.075E+04            | 2.173E-07 | 3.150E-05    |
| 2168 | 3.075E+04            | 2.067E-07 | 2.996E-05    |
| 2169 | 3.075E+04            | 1.966E-07 | 2.850E-05    |
| 2170 | 3.075E+04            | 1.870E-07 | 2.711E-05    |
| 2171 | 3.075E+04            | 1.779E-07 | 2.579E-05    |
| 2172 | 3.075E+04            | 1.692E-07 | 2.453E-05    |
| 2173 | 3.075E+04            | 1.610E-07 | 2.334E-05    |
| 2174 | 3.075E+04            | 1.531E-07 | 2.220E-05    |
| 2175 | 3.075E+04            | 1.456E-07 | 2.112E-05    |
| 2176 | 3.075E+04            | 1.385E-07 | 2.009E-05    |
| 2177 | 3.075E+04            | 1.318E-07 | 1.911E-05    |
| 2178 | 3.075E+04            | 1.254E-07 | 1.817E-05    |
| 2179 | 3.075E+04            | 1.192E-07 | 1.729E-05    |
| 2180 | 3.075E+04            | 1.134E-07 | 1.644E-05    |
| 2181 | 3.075E+04            | 1.079E-07 | 1.564E-05    |
| 2182 | 3.075E+04            | 1.026E-07 | 1.488E-05    |
| 2183 | 3.075E+04            | 9.762E-08 | 1.415E-05    |
| 2184 | 3.075E+04            | 9.286E-08 | 1.346E-05    |
| 2185 | 3.075E+04            | 8.833E-08 | 1.281E-05    |
| 2186 | 3.075E+04            | 8.403E-08 | 1.218E-05    |
| 2187 | 3.075E+04            | 7.993E-08 | 1.159E-05    |
| 2188 | 3.075E+04            | 7.603E-08 | 1.102E-05    |
| 2189 | 3.075E+04            | 7.232E-08 | 1.049E-05    |
| 2190 | 3.075E+04            | 6.879E-08 | 9.974E-06    |
| 2191 | 3.075E+04            | 6.544E-08 | 9.488E-06    |
| 2192 | 3.075E+04            | 6.225E-08 | 9.025E-06    |
| 2193 | 3.075E+04            | 5.921E-08 | 8.585E-06    |
| 2194 | 3.075E+04            | 5.632E-08 | 8.166E-06    |
| 2195 | 3.075E+04            | 5.358E-08 | 7.768E-06    |
| 2196 | 3.075E+04            | 5.096E-08 | 7.389E-06    |
| 2197 | 3.075E+04            | 4.848E-08 | 7.029E-06    |
| 2198 | 3.075E+04            | 4.611E-08 | 6.686E-06    |
| 2199 | 3.075E+04            | 4.387E-08 | 6.360E-06    |
| 2200 | 3.075E+04            | 4.173E-08 | 6.050E-06    |
| 2201 | 3.075E+04            | 3.969E-08 | 5.755E-06    |
| 2202 | 3.075E+04            | 3.776E-08 | 5.474E-06    |

Table D-60. Emission Rate of Toluene from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA4.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1870.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Toluene (HAP/VOC)
Molecular Wt = 92.14      Concentration = 0.110000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2003
Capacity : 30752 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 5271.79 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      Toluene (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.075E+03      1.722E-05      4.493E-03
1976      6.150E+03      3.360E-05      8.766E-03
1977      9.226E+03      4.917E-05      1.283E-02
1978      1.230E+04      6.399E-05      1.670E-02
1979      1.538E+04      7.809E-05      2.038E-02
1980      1.845E+04      9.150E-05      2.388E-02
1981      2.153E+04      1.043E-04      2.720E-02
1982      2.460E+04      1.164E-04      3.037E-02
1983      2.768E+04      1.279E-04      3.338E-02
1984      3.075E+04      1.389E-04      3.625E-02
1985      3.075E+04      1.321E-04      3.448E-02
1986      3.075E+04      1.257E-04      3.280E-02
1987      3.075E+04      1.196E-04      3.120E-02
1988      3.075E+04      1.137E-04      2.968E-02
1989      3.075E+04      1.082E-04      2.823E-02
1990      3.075E+04      1.029E-04      2.685E-02
1991      3.075E+04      9.789E-05      2.554E-02
1992      3.075E+04      9.311E-05      2.430E-02
1993      3.075E+04      8.857E-05      2.311E-02
1994      3.075E+04      8.425E-05      2.198E-02
1995      3.075E+04      8.014E-05      2.091E-02
1996      3.075E+04      7.623E-05      1.989E-02
1997      3.075E+04      7.252E-05      1.892E-02
1998      3.075E+04      6.898E-05      1.800E-02
1999      3.075E+04      6.561E-05      1.712E-02
2000      3.075E+04      6.241E-05      1.629E-02
2001      3.075E+04      5.937E-05      1.549E-02
2002      3.075E+04      5.648E-05      1.474E-02
2003      3.075E+04      5.372E-05      1.402E-02
2004      3.075E+04      5.110E-05      1.333E-02
2005      3.075E+04      4.861E-05      1.268E-02
2006      3.075E+04      4.624E-05      1.207E-02
2007      3.075E+04      4.398E-05      1.148E-02
2008      3.075E+04      4.184E-05      1.092E-02
2009      3.075E+04      3.980E-05      1.038E-02
2010      3.075E+04      3.786E-05      9.878E-03
2011      3.075E+04      3.601E-05      9.396E-03
2012      3.075E+04      3.425E-05      8.938E-03
2013      3.075E+04      3.258E-05      8.502E-03
2014      3.075E+04      3.099E-05      8.088E-03
2015      3.075E+04      2.948E-05      7.693E-03
2016      3.075E+04      2.804E-05      7.318E-03
2017      3.075E+04      2.668E-05      6.961E-03
2018      3.075E+04      2.538E-05      6.622E-03
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continued

Table D-60. Emission Rate of Toluene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.075E+04            | 2.414E-05 | 6.299E-03    |
| 2020 | 3.075E+04            | 2.296E-05 | 5.991E-03    |
| 2021 | 3.075E+04            | 2.184E-05 | 5.699E-03    |
| 2022 | 3.075E+04            | 2.078E-05 | 5.421E-03    |
| 2023 | 3.075E+04            | 1.976E-05 | 5.157E-03    |
| 2024 | 3.075E+04            | 1.880E-05 | 4.905E-03    |
| 2025 | 3.075E+04            | 1.788E-05 | 4.666E-03    |
| 2026 | 3.075E+04            | 1.701E-05 | 4.439E-03    |
| 2027 | 3.075E+04            | 1.618E-05 | 4.222E-03    |
| 2028 | 3.075E+04            | 1.539E-05 | 4.016E-03    |
| 2029 | 3.075E+04            | 1.464E-05 | 3.820E-03    |
| 2030 | 3.075E+04            | 1.393E-05 | 3.634E-03    |
| 2031 | 3.075E+04            | 1.325E-05 | 3.457E-03    |
| 2032 | 3.075E+04            | 1.260E-05 | 3.288E-03    |
| 2033 | 3.075E+04            | 1.199E-05 | 3.128E-03    |
| 2034 | 3.075E+04            | 1.140E-05 | 2.975E-03    |
| 2035 | 3.075E+04            | 1.085E-05 | 2.830E-03    |
| 2036 | 3.075E+04            | 1.032E-05 | 2.692E-03    |
| 2037 | 3.075E+04            | 9.814E-06 | 2.561E-03    |
| 2038 | 3.075E+04            | 9.335E-06 | 2.436E-03    |
| 2039 | 3.075E+04            | 8.880E-06 | 2.317E-03    |
| 2040 | 3.075E+04            | 8.447E-06 | 2.204E-03    |
| 2041 | 3.075E+04            | 8.035E-06 | 2.097E-03    |
| 2042 | 3.075E+04            | 7.643E-06 | 1.994E-03    |
| 2043 | 3.075E+04            | 7.270E-06 | 1.897E-03    |
| 2044 | 3.075E+04            | 6.916E-06 | 1.805E-03    |
| 2045 | 3.075E+04            | 6.578E-06 | 1.717E-03    |
| 2046 | 3.075E+04            | 6.258E-06 | 1.633E-03    |
| 2047 | 3.075E+04            | 5.952E-06 | 1.553E-03    |
| 2048 | 3.075E+04            | 5.662E-06 | 1.477E-03    |
| 2049 | 3.075E+04            | 5.386E-06 | 1.405E-03    |
| 2050 | 3.075E+04            | 5.123E-06 | 1.337E-03    |
| 2051 | 3.075E+04            | 4.873E-06 | 1.272E-03    |
| 2052 | 3.075E+04            | 4.636E-06 | 1.210E-03    |
| 2053 | 3.075E+04            | 4.410E-06 | 1.151E-03    |
| 2054 | 3.075E+04            | 4.195E-06 | 1.095E-03    |
| 2055 | 3.075E+04            | 3.990E-06 | 1.041E-03    |
| 2056 | 3.075E+04            | 3.795E-06 | 9.904E-04    |
| 2057 | 3.075E+04            | 3.610E-06 | 9.421E-04    |
| 2058 | 3.075E+04            | 3.434E-06 | 8.961E-04    |
| 2059 | 3.075E+04            | 3.267E-06 | 8.524E-04    |
| 2060 | 3.075E+04            | 3.107E-06 | 8.108E-04    |
| 2061 | 3.075E+04            | 2.956E-06 | 7.713E-04    |
| 2062 | 3.075E+04            | 2.812E-06 | 7.337E-04    |
| 2063 | 3.075E+04            | 2.675E-06 | 6.979E-04    |
| 2064 | 3.075E+04            | 2.544E-06 | 6.639E-04    |
| 2065 | 3.075E+04            | 2.420E-06 | 6.315E-04    |
| 2066 | 3.075E+04            | 2.302E-06 | 6.007E-04    |
| 2067 | 3.075E+04            | 2.190E-06 | 5.714E-04    |
| 2068 | 3.075E+04            | 2.083E-06 | 5.435E-04    |
| 2069 | 3.075E+04            | 1.981E-06 | 5.170E-04    |
| 2070 | 3.075E+04            | 1.885E-06 | 4.918E-04    |
| 2071 | 3.075E+04            | 1.793E-06 | 4.678E-04    |
| 2072 | 3.075E+04            | 1.705E-06 | 4.450E-04    |
| 2073 | 3.075E+04            | 1.622E-06 | 4.233E-04    |
| 2074 | 3.075E+04            | 1.543E-06 | 4.027E-04    |
| 2075 | 3.075E+04            | 1.468E-06 | 3.830E-04    |
| 2076 | 3.075E+04            | 1.396E-06 | 3.643E-04    |
| 2077 | 3.075E+04            | 1.328E-06 | 3.466E-04    |
| 2078 | 3.075E+04            | 1.263E-06 | 3.297E-04    |
| 2079 | 3.075E+04            | 1.202E-06 | 3.136E-04    |
| 2080 | 3.075E+04            | 1.143E-06 | 2.983E-04    |
| 2081 | 3.075E+04            | 1.087E-06 | 2.837E-04    |
| 2082 | 3.075E+04            | 1.034E-06 | 2.699E-04    |
| 2083 | 3.075E+04            | 9.839E-07 | 2.567E-04    |
| 2084 | 3.075E+04            | 9.359E-07 | 2.442E-04    |
| 2085 | 3.075E+04            | 8.903E-07 | 2.323E-04    |
| 2086 | 3.075E+04            | 8.469E-07 | 2.210E-04    |
| 2087 | 3.075E+04            | 8.056E-07 | 2.102E-04    |
| 2088 | 3.075E+04            | 7.663E-07 | 2.000E-04    |

continued



Table D-60. Emission Rate of Toluene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.075E+04            | 7.289E-07 | 1.902E-04    |
| 2090 | 3.075E+04            | 6.934E-07 | 1.809E-04    |
| 2091 | 3.075E+04            | 6.596E-07 | 1.721E-04    |
| 2092 | 3.075E+04            | 6.274E-07 | 1.637E-04    |
| 2093 | 3.075E+04            | 5.968E-07 | 1.557E-04    |
| 2094 | 3.075E+04            | 5.677E-07 | 1.481E-04    |
| 2095 | 3.075E+04            | 5.400E-07 | 1.409E-04    |
| 2096 | 3.075E+04            | 5.137E-07 | 1.340E-04    |
| 2097 | 3.075E+04            | 4.886E-07 | 1.275E-04    |
| 2098 | 3.075E+04            | 4.648E-07 | 1.213E-04    |
| 2099 | 3.075E+04            | 4.421E-07 | 1.154E-04    |
| 2100 | 3.075E+04            | 4.205E-07 | 1.097E-04    |
| 2101 | 3.075E+04            | 4.000E-07 | 1.044E-04    |
| 2102 | 3.075E+04            | 3.805E-07 | 9.929E-05    |
| 2103 | 3.075E+04            | 3.620E-07 | 9.445E-05    |
| 2104 | 3.075E+04            | 3.443E-07 | 8.984E-05    |
| 2105 | 3.075E+04            | 3.275E-07 | 8.546E-05    |
| 2106 | 3.075E+04            | 3.115E-07 | 8.129E-05    |
| 2107 | 3.075E+04            | 2.964E-07 | 7.733E-05    |
| 2108 | 3.075E+04            | 2.819E-07 | 7.356E-05    |
| 2109 | 3.075E+04            | 2.682E-07 | 6.997E-05    |
| 2110 | 3.075E+04            | 2.551E-07 | 6.656E-05    |
| 2111 | 3.075E+04            | 2.426E-07 | 6.331E-05    |
| 2112 | 3.075E+04            | 2.308E-07 | 6.022E-05    |
| 2113 | 3.075E+04            | 2.195E-07 | 5.729E-05    |
| 2114 | 3.075E+04            | 2.088E-07 | 5.449E-05    |
| 2115 | 3.075E+04            | 1.987E-07 | 5.184E-05    |
| 2116 | 3.075E+04            | 1.890E-07 | 4.931E-05    |
| 2117 | 3.075E+04            | 1.797E-07 | 4.690E-05    |
| 2118 | 3.075E+04            | 1.710E-07 | 4.462E-05    |
| 2119 | 3.075E+04            | 1.626E-07 | 4.244E-05    |
| 2120 | 3.075E+04            | 1.547E-07 | 4.037E-05    |
| 2121 | 3.075E+04            | 1.472E-07 | 3.840E-05    |
| 2122 | 3.075E+04            | 1.400E-07 | 3.653E-05    |
| 2123 | 3.075E+04            | 1.332E-07 | 3.475E-05    |
| 2124 | 3.075E+04            | 1.267E-07 | 3.305E-05    |
| 2125 | 3.075E+04            | 1.205E-07 | 3.144E-05    |
| 2126 | 3.075E+04            | 1.146E-07 | 2.991E-05    |
| 2127 | 3.075E+04            | 1.090E-07 | 2.845E-05    |
| 2128 | 3.075E+04            | 1.037E-07 | 2.706E-05    |
| 2129 | 3.075E+04            | 9.865E-08 | 2.574E-05    |
| 2130 | 3.075E+04            | 9.384E-08 | 2.449E-05    |
| 2131 | 3.075E+04            | 8.926E-08 | 2.329E-05    |
| 2132 | 3.075E+04            | 8.491E-08 | 2.216E-05    |
| 2133 | 3.075E+04            | 8.077E-08 | 2.107E-05    |
| 2134 | 3.075E+04            | 7.683E-08 | 2.005E-05    |
| 2135 | 3.075E+04            | 7.308E-08 | 1.907E-05    |
| 2136 | 3.075E+04            | 6.952E-08 | 1.814E-05    |
| 2137 | 3.075E+04            | 6.613E-08 | 1.725E-05    |
| 2138 | 3.075E+04            | 6.290E-08 | 1.641E-05    |
| 2139 | 3.075E+04            | 5.983E-08 | 1.561E-05    |
| 2140 | 3.075E+04            | 5.692E-08 | 1.485E-05    |
| 2141 | 3.075E+04            | 5.414E-08 | 1.413E-05    |
| 2142 | 3.075E+04            | 5.150E-08 | 1.344E-05    |
| 2143 | 3.075E+04            | 4.899E-08 | 1.278E-05    |
| 2144 | 3.075E+04            | 4.660E-08 | 1.216E-05    |
| 2145 | 3.075E+04            | 4.433E-08 | 1.157E-05    |
| 2146 | 3.075E+04            | 4.216E-08 | 1.100E-05    |
| 2147 | 3.075E+04            | 4.011E-08 | 1.047E-05    |
| 2148 | 3.075E+04            | 3.815E-08 | 9.955E-06    |
| 2149 | 3.075E+04            | 3.629E-08 | 9.470E-06    |
| 2150 | 3.075E+04            | 3.452E-08 | 9.008E-06    |
| 2151 | 3.075E+04            | 3.284E-08 | 8.568E-06    |
| 2152 | 3.075E+04            | 3.124E-08 | 8.150E-06    |
| 2153 | 3.075E+04            | 2.971E-08 | 7.753E-06    |
| 2154 | 3.075E+04            | 2.826E-08 | 7.375E-06    |
| 2155 | 3.075E+04            | 2.688E-08 | 7.015E-06    |
| 2156 | 3.075E+04            | 2.557E-08 | 6.673E-06    |
| 2157 | 3.075E+04            | 2.433E-08 | 6.348E-06    |
| 2158 | 3.075E+04            | 2.314E-08 | 6.038E-06    |

continued

Table D-60. Emission Rate of Toluene from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.075E+04            | 2.201E-08 | 5.744E-06    |
| 2160 | 3.075E+04            | 2.094E-08 | 5.463E-06    |
| 2161 | 3.075E+04            | 1.992E-08 | 5.197E-06    |
| 2162 | 3.075E+04            | 1.895E-08 | 4.944E-06    |
| 2163 | 3.075E+04            | 1.802E-08 | 4.702E-06    |
| 2164 | 3.075E+04            | 1.714E-08 | 4.473E-06    |
| 2165 | 3.075E+04            | 1.631E-08 | 4.255E-06    |
| 2166 | 3.075E+04            | 1.551E-08 | 4.047E-06    |
| 2167 | 3.075E+04            | 1.475E-08 | 3.850E-06    |
| 2168 | 3.075E+04            | 1.404E-08 | 3.662E-06    |
| 2169 | 3.075E+04            | 1.335E-08 | 3.484E-06    |
| 2170 | 3.075E+04            | 1.270E-08 | 3.314E-06    |
| 2171 | 3.075E+04            | 1.208E-08 | 3.152E-06    |
| 2172 | 3.075E+04            | 1.149E-08 | 2.998E-06    |
| 2173 | 3.075E+04            | 1.093E-08 | 2.852E-06    |
| 2174 | 3.075E+04            | 1.040E-08 | 2.713E-06    |
| 2175 | 3.075E+04            | 9.890E-09 | 2.581E-06    |
| 2176 | 3.075E+04            | 9.408E-09 | 2.455E-06    |
| 2177 | 3.075E+04            | 8.949E-09 | 2.335E-06    |
| 2178 | 3.075E+04            | 8.513E-09 | 2.221E-06    |
| 2179 | 3.075E+04            | 8.098E-09 | 2.113E-06    |
| 2180 | 3.075E+04            | 7.703E-09 | 2.010E-06    |
| 2181 | 3.075E+04            | 7.327E-09 | 1.912E-06    |
| 2182 | 3.075E+04            | 6.970E-09 | 1.819E-06    |
| 2183 | 3.075E+04            | 6.630E-09 | 1.730E-06    |
| 2184 | 3.075E+04            | 6.306E-09 | 1.646E-06    |
| 2185 | 3.075E+04            | 5.999E-09 | 1.565E-06    |
| 2186 | 3.075E+04            | 5.706E-09 | 1.489E-06    |
| 2187 | 3.075E+04            | 5.428E-09 | 1.416E-06    |
| 2188 | 3.075E+04            | 5.163E-09 | 1.347E-06    |
| 2189 | 3.075E+04            | 4.911E-09 | 1.282E-06    |
| 2190 | 3.075E+04            | 4.672E-09 | 1.219E-06    |
| 2191 | 3.075E+04            | 4.444E-09 | 1.160E-06    |
| 2192 | 3.075E+04            | 4.227E-09 | 1.103E-06    |
| 2193 | 3.075E+04            | 4.021E-09 | 1.049E-06    |
| 2194 | 3.075E+04            | 3.825E-09 | 9.981E-07    |
| 2195 | 3.075E+04            | 3.638E-09 | 9.494E-07    |
| 2196 | 3.075E+04            | 3.461E-09 | 9.031E-07    |
| 2197 | 3.075E+04            | 3.292E-09 | 8.591E-07    |
| 2198 | 3.075E+04            | 3.132E-09 | 8.172E-07    |
| 2199 | 3.075E+04            | 2.979E-09 | 7.773E-07    |
| 2200 | 3.075E+04            | 2.834E-09 | 7.394E-07    |
| 2201 | 3.075E+04            | 2.695E-09 | 7.033E-07    |
| 2202 | 3.075E+04            | 2.564E-09 | 6.690E-07    |

Table D-61. Emission Rate of Trichloroethene from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA4.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1870.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Trichloroethene (HAP/VOC)
Molecular Wt = 131.38      Concentration =      0.820000 ppmV
=====
                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2003
Capacity : 30752 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 5271.79 Mg/year
=====
                          Model Results
=====
Year      Refuse In Place (Mg)      Trichloroethene (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.075E+03      1.830E-04      3.349E-02
1976      6.150E+03      3.571E-04      6.535E-02
1977      9.226E+03      5.227E-04      9.565E-02
1978      1.230E+04      6.802E-04      1.245E-01
1979      1.538E+04      8.300E-04      1.519E-01
1980      1.845E+04      9.726E-04      1.780E-01
1981      2.153E+04      1.108E-03      2.028E-01
1982      2.460E+04      1.237E-03      2.264E-01
1983      2.768E+04      1.360E-03      2.488E-01
1984      3.075E+04      1.476E-03      2.702E-01
1985      3.075E+04      1.404E-03      2.570E-01
1986      3.075E+04      1.336E-03      2.445E-01
1987      3.075E+04      1.271E-03      2.326E-01
1988      3.075E+04      1.209E-03      2.212E-01
1989      3.075E+04      1.150E-03      2.104E-01
1990      3.075E+04      1.094E-03      2.002E-01
1991      3.075E+04      1.040E-03      1.904E-01
1992      3.075E+04      9.897E-04      1.811E-01
1993      3.075E+04      9.414E-04      1.723E-01
1994      3.075E+04      8.955E-04      1.639E-01
1995      3.075E+04      8.519E-04      1.559E-01
1996      3.075E+04      8.103E-04      1.483E-01
1997      3.075E+04      7.708E-04      1.411E-01
1998      3.075E+04      7.332E-04      1.342E-01
1999      3.075E+04      6.974E-04      1.276E-01
2000      3.075E+04      6.634E-04      1.214E-01
2001      3.075E+04      6.311E-04      1.155E-01
2002      3.075E+04      6.003E-04      1.099E-01
2003      3.075E+04      5.710E-04      1.045E-01
2004      3.075E+04      5.432E-04      9.940E-02
2005      3.075E+04      5.167E-04      9.455E-02
2006      3.075E+04      4.915E-04      8.994E-02
2007      3.075E+04      4.675E-04      8.555E-02
2008      3.075E+04      4.447E-04      8.138E-02
2009      3.075E+04      4.230E-04      7.741E-02
2010      3.075E+04      4.024E-04      7.364E-02
2011      3.075E+04      3.828E-04      7.005E-02
2012      3.075E+04      3.641E-04      6.663E-02
2013      3.075E+04      3.463E-04      6.338E-02
2014      3.075E+04      3.294E-04      6.029E-02
2015      3.075E+04      3.134E-04      5.735E-02
2016      3.075E+04      2.981E-04      5.455E-02
2017      3.075E+04      2.836E-04      5.189E-02
2018      3.075E+04      2.697E-04      4.936E-02
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continued

Table D-61. Emission Rate of Trichloroethene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.075E+04            | 2.566E-04 | 4.695E-02    |
| 2020 | 3.075E+04            | 2.441E-04 | 4.466E-02    |
| 2021 | 3.075E+04            | 2.322E-04 | 4.248E-02    |
| 2022 | 3.075E+04            | 2.208E-04 | 4.041E-02    |
| 2023 | 3.075E+04            | 2.101E-04 | 3.844E-02    |
| 2024 | 3.075E+04            | 1.998E-04 | 3.657E-02    |
| 2025 | 3.075E+04            | 1.901E-04 | 3.478E-02    |
| 2026 | 3.075E+04            | 1.808E-04 | 3.309E-02    |
| 2027 | 3.075E+04            | 1.720E-04 | 3.147E-02    |
| 2028 | 3.075E+04            | 1.636E-04 | 2.994E-02    |
| 2029 | 3.075E+04            | 1.556E-04 | 2.848E-02    |
| 2030 | 3.075E+04            | 1.480E-04 | 2.709E-02    |
| 2031 | 3.075E+04            | 1.408E-04 | 2.577E-02    |
| 2032 | 3.075E+04            | 1.339E-04 | 2.451E-02    |
| 2033 | 3.075E+04            | 1.274E-04 | 2.332E-02    |
| 2034 | 3.075E+04            | 1.212E-04 | 2.218E-02    |
| 2035 | 3.075E+04            | 1.153E-04 | 2.110E-02    |
| 2036 | 3.075E+04            | 1.097E-04 | 2.007E-02    |
| 2037 | 3.075E+04            | 1.043E-04 | 1.909E-02    |
| 2038 | 3.075E+04            | 9.923E-05 | 1.816E-02    |
| 2039 | 3.075E+04            | 9.439E-05 | 1.727E-02    |
| 2040 | 3.075E+04            | 8.978E-05 | 1.643E-02    |
| 2041 | 3.075E+04            | 8.541E-05 | 1.563E-02    |
| 2042 | 3.075E+04            | 8.124E-05 | 1.487E-02    |
| 2043 | 3.075E+04            | 7.728E-05 | 1.414E-02    |
| 2044 | 3.075E+04            | 7.351E-05 | 1.345E-02    |
| 2045 | 3.075E+04            | 6.992E-05 | 1.280E-02    |
| 2046 | 3.075E+04            | 6.651E-05 | 1.217E-02    |
| 2047 | 3.075E+04            | 6.327E-05 | 1.158E-02    |
| 2048 | 3.075E+04            | 6.018E-05 | 1.101E-02    |
| 2049 | 3.075E+04            | 5.725E-05 | 1.048E-02    |
| 2050 | 3.075E+04            | 5.446E-05 | 9.966E-03    |
| 2051 | 3.075E+04            | 5.180E-05 | 9.480E-03    |
| 2052 | 3.075E+04            | 4.927E-05 | 9.017E-03    |
| 2053 | 3.075E+04            | 4.687E-05 | 8.578E-03    |
| 2054 | 3.075E+04            | 4.459E-05 | 8.159E-03    |
| 2055 | 3.075E+04            | 4.241E-05 | 7.761E-03    |
| 2056 | 3.075E+04            | 4.034E-05 | 7.383E-03    |
| 2057 | 3.075E+04            | 3.838E-05 | 7.023E-03    |
| 2058 | 3.075E+04            | 3.650E-05 | 6.680E-03    |
| 2059 | 3.075E+04            | 3.472E-05 | 6.354E-03    |
| 2060 | 3.075E+04            | 3.303E-05 | 6.044E-03    |
| 2061 | 3.075E+04            | 3.142E-05 | 5.750E-03    |
| 2062 | 3.075E+04            | 2.989E-05 | 5.469E-03    |
| 2063 | 3.075E+04            | 2.843E-05 | 5.203E-03    |
| 2064 | 3.075E+04            | 2.704E-05 | 4.949E-03    |
| 2065 | 3.075E+04            | 2.572E-05 | 4.707E-03    |
| 2066 | 3.075E+04            | 2.447E-05 | 4.478E-03    |
| 2067 | 3.075E+04            | 2.328E-05 | 4.259E-03    |
| 2068 | 3.075E+04            | 2.214E-05 | 4.052E-03    |
| 2069 | 3.075E+04            | 2.106E-05 | 3.854E-03    |
| 2070 | 3.075E+04            | 2.003E-05 | 3.666E-03    |
| 2071 | 3.075E+04            | 1.906E-05 | 3.487E-03    |
| 2072 | 3.075E+04            | 1.813E-05 | 3.317E-03    |
| 2073 | 3.075E+04            | 1.724E-05 | 3.156E-03    |
| 2074 | 3.075E+04            | 1.640E-05 | 3.002E-03    |
| 2075 | 3.075E+04            | 1.560E-05 | 2.855E-03    |
| 2076 | 3.075E+04            | 1.484E-05 | 2.716E-03    |
| 2077 | 3.075E+04            | 1.412E-05 | 2.584E-03    |
| 2078 | 3.075E+04            | 1.343E-05 | 2.458E-03    |
| 2079 | 3.075E+04            | 1.277E-05 | 2.338E-03    |
| 2080 | 3.075E+04            | 1.215E-05 | 2.224E-03    |
| 2081 | 3.075E+04            | 1.156E-05 | 2.115E-03    |
| 2082 | 3.075E+04            | 1.099E-05 | 2.012E-03    |
| 2083 | 3.075E+04            | 1.046E-05 | 1.914E-03    |
| 2084 | 3.075E+04            | 9.948E-06 | 1.821E-03    |
| 2085 | 3.075E+04            | 9.463E-06 | 1.732E-03    |
| 2086 | 3.075E+04            | 9.002E-06 | 1.647E-03    |
| 2087 | 3.075E+04            | 8.563E-06 | 1.567E-03    |
| 2088 | 3.075E+04            | 8.145E-06 | 1.491E-03    |

continued

Table D-61. Emission Rate of Trichloroethene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.075E+04            | 7.748E-06 | 1.418E-03    |
| 2090 | 3.075E+04            | 7.370E-06 | 1.349E-03    |
| 2091 | 3.075E+04            | 7.011E-06 | 1.283E-03    |
| 2092 | 3.075E+04            | 6.669E-06 | 1.220E-03    |
| 2093 | 3.075E+04            | 6.343E-06 | 1.161E-03    |
| 2094 | 3.075E+04            | 6.034E-06 | 1.104E-03    |
| 2095 | 3.075E+04            | 5.740E-06 | 1.050E-03    |
| 2096 | 3.075E+04            | 5.460E-06 | 9.991E-04    |
| 2097 | 3.075E+04            | 5.194E-06 | 9.504E-04    |
| 2098 | 3.075E+04            | 4.940E-06 | 9.041E-04    |
| 2099 | 3.075E+04            | 4.699E-06 | 8.600E-04    |
| 2100 | 3.075E+04            | 4.470E-06 | 8.180E-04    |
| 2101 | 3.075E+04            | 4.252E-06 | 7.781E-04    |
| 2102 | 3.075E+04            | 4.045E-06 | 7.402E-04    |
| 2103 | 3.075E+04            | 3.847E-06 | 7.041E-04    |
| 2104 | 3.075E+04            | 3.660E-06 | 6.697E-04    |
| 2105 | 3.075E+04            | 3.481E-06 | 6.371E-04    |
| 2106 | 3.075E+04            | 3.312E-06 | 6.060E-04    |
| 2107 | 3.075E+04            | 3.150E-06 | 5.765E-04    |
| 2108 | 3.075E+04            | 2.996E-06 | 5.483E-04    |
| 2109 | 3.075E+04            | 2.850E-06 | 5.216E-04    |
| 2110 | 3.075E+04            | 2.711E-06 | 4.962E-04    |
| 2111 | 3.075E+04            | 2.579E-06 | 4.720E-04    |
| 2112 | 3.075E+04            | 2.453E-06 | 4.489E-04    |
| 2113 | 3.075E+04            | 2.334E-06 | 4.271E-04    |
| 2114 | 3.075E+04            | 2.220E-06 | 4.062E-04    |
| 2115 | 3.075E+04            | 2.112E-06 | 3.864E-04    |
| 2116 | 3.075E+04            | 2.009E-06 | 3.676E-04    |
| 2117 | 3.075E+04            | 1.911E-06 | 3.496E-04    |
| 2118 | 3.075E+04            | 1.817E-06 | 3.326E-04    |
| 2119 | 3.075E+04            | 1.729E-06 | 3.164E-04    |
| 2120 | 3.075E+04            | 1.644E-06 | 3.009E-04    |
| 2121 | 3.075E+04            | 1.564E-06 | 2.863E-04    |
| 2122 | 3.075E+04            | 1.488E-06 | 2.723E-04    |
| 2123 | 3.075E+04            | 1.415E-06 | 2.590E-04    |
| 2124 | 3.075E+04            | 1.346E-06 | 2.464E-04    |
| 2125 | 3.075E+04            | 1.281E-06 | 2.344E-04    |
| 2126 | 3.075E+04            | 1.218E-06 | 2.229E-04    |
| 2127 | 3.075E+04            | 1.159E-06 | 2.121E-04    |
| 2128 | 3.075E+04            | 1.102E-06 | 2.017E-04    |
| 2129 | 3.075E+04            | 1.049E-06 | 1.919E-04    |
| 2130 | 3.075E+04            | 9.974E-07 | 1.825E-04    |
| 2131 | 3.075E+04            | 9.488E-07 | 1.736E-04    |
| 2132 | 3.075E+04            | 9.025E-07 | 1.652E-04    |
| 2133 | 3.075E+04            | 8.585E-07 | 1.571E-04    |
| 2134 | 3.075E+04            | 8.166E-07 | 1.494E-04    |
| 2135 | 3.075E+04            | 7.768E-07 | 1.422E-04    |
| 2136 | 3.075E+04            | 7.389E-07 | 1.352E-04    |
| 2137 | 3.075E+04            | 7.029E-07 | 1.286E-04    |
| 2138 | 3.075E+04            | 6.686E-07 | 1.224E-04    |
| 2139 | 3.075E+04            | 6.360E-07 | 1.164E-04    |
| 2140 | 3.075E+04            | 6.050E-07 | 1.107E-04    |
| 2141 | 3.075E+04            | 5.755E-07 | 1.053E-04    |
| 2142 | 3.075E+04            | 5.474E-07 | 1.002E-04    |
| 2143 | 3.075E+04            | 5.207E-07 | 9.529E-05    |
| 2144 | 3.075E+04            | 4.953E-07 | 9.064E-05    |
| 2145 | 3.075E+04            | 4.711E-07 | 8.622E-05    |
| 2146 | 3.075E+04            | 4.482E-07 | 8.202E-05    |
| 2147 | 3.075E+04            | 4.263E-07 | 7.802E-05    |
| 2148 | 3.075E+04            | 4.055E-07 | 7.421E-05    |
| 2149 | 3.075E+04            | 3.857E-07 | 7.059E-05    |
| 2150 | 3.075E+04            | 3.669E-07 | 6.715E-05    |
| 2151 | 3.075E+04            | 3.490E-07 | 6.387E-05    |
| 2152 | 3.075E+04            | 3.320E-07 | 6.076E-05    |
| 2153 | 3.075E+04            | 3.158E-07 | 5.780E-05    |
| 2154 | 3.075E+04            | 3.004E-07 | 5.498E-05    |
| 2155 | 3.075E+04            | 2.858E-07 | 5.230E-05    |
| 2156 | 3.075E+04            | 2.718E-07 | 4.974E-05    |
| 2157 | 3.075E+04            | 2.586E-07 | 4.732E-05    |
| 2158 | 3.075E+04            | 2.460E-07 | 4.501E-05    |

continued

Table D-61. Emission Rate of Trichloroethene from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.075E+04            | 2.340E-07 | 4.282E-05    |
| 2160 | 3.075E+04            | 2.226E-07 | 4.073E-05    |
| 2161 | 3.075E+04            | 2.117E-07 | 3.874E-05    |
| 2162 | 3.075E+04            | 2.014E-07 | 3.685E-05    |
| 2163 | 3.075E+04            | 1.916E-07 | 3.505E-05    |
| 2164 | 3.075E+04            | 1.822E-07 | 3.334E-05    |
| 2165 | 3.075E+04            | 1.733E-07 | 3.172E-05    |
| 2166 | 3.075E+04            | 1.649E-07 | 3.017E-05    |
| 2167 | 3.075E+04            | 1.568E-07 | 2.870E-05    |
| 2168 | 3.075E+04            | 1.492E-07 | 2.730E-05    |
| 2169 | 3.075E+04            | 1.419E-07 | 2.597E-05    |
| 2170 | 3.075E+04            | 1.350E-07 | 2.470E-05    |
| 2171 | 3.075E+04            | 1.284E-07 | 2.350E-05    |
| 2172 | 3.075E+04            | 1.221E-07 | 2.235E-05    |
| 2173 | 3.075E+04            | 1.162E-07 | 2.126E-05    |
| 2174 | 3.075E+04            | 1.105E-07 | 2.022E-05    |
| 2175 | 3.075E+04            | 1.051E-07 | 1.924E-05    |
| 2176 | 3.075E+04            | 1.000E-07 | 1.830E-05    |
| 2177 | 3.075E+04            | 9.512E-08 | 1.741E-05    |
| 2178 | 3.075E+04            | 9.048E-08 | 1.656E-05    |
| 2179 | 3.075E+04            | 8.607E-08 | 1.575E-05    |
| 2180 | 3.075E+04            | 8.187E-08 | 1.498E-05    |
| 2181 | 3.075E+04            | 7.788E-08 | 1.425E-05    |
| 2182 | 3.075E+04            | 7.408E-08 | 1.356E-05    |
| 2183 | 3.075E+04            | 7.047E-08 | 1.290E-05    |
| 2184 | 3.075E+04            | 6.703E-08 | 1.227E-05    |
| 2185 | 3.075E+04            | 6.376E-08 | 1.167E-05    |
| 2186 | 3.075E+04            | 6.065E-08 | 1.110E-05    |
| 2187 | 3.075E+04            | 5.769E-08 | 1.056E-05    |
| 2188 | 3.075E+04            | 5.488E-08 | 1.004E-05    |
| 2189 | 3.075E+04            | 5.220E-08 | 9.553E-06    |
| 2190 | 3.075E+04            | 4.966E-08 | 9.088E-06    |
| 2191 | 3.075E+04            | 4.724E-08 | 8.644E-06    |
| 2192 | 3.075E+04            | 4.493E-08 | 8.223E-06    |
| 2193 | 3.075E+04            | 4.274E-08 | 7.822E-06    |
| 2194 | 3.075E+04            | 4.066E-08 | 7.440E-06    |
| 2195 | 3.075E+04            | 3.867E-08 | 7.077E-06    |
| 2196 | 3.075E+04            | 3.679E-08 | 6.732E-06    |
| 2197 | 3.075E+04            | 3.499E-08 | 6.404E-06    |
| 2198 | 3.075E+04            | 3.329E-08 | 6.092E-06    |
| 2199 | 3.075E+04            | 3.166E-08 | 5.794E-06    |
| 2200 | 3.075E+04            | 3.012E-08 | 5.512E-06    |
| 2201 | 3.075E+04            | 2.865E-08 | 5.243E-06    |
| 2202 | 3.075E+04            | 2.725E-08 | 4.987E-06    |

Table D-62. Emission Rate of Vinyl Chloride from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA4.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1870.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : Vinyl Chloride (HAP/VOC)
Molecular Wt = 62.50      Concentration = 0.850000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2003
Capacity : 30752 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 5271.79 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      Vinyl Chloride (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.075E+03      9.025E-05      3.472E-02
1976      6.150E+03      1.761E-04      6.774E-02
1977      9.226E+03      2.578E-04      9.915E-02
1978      1.230E+04      3.354E-04      1.290E-01
1979      1.538E+04      4.093E-04      1.575E-01
1980      1.845E+04      4.796E-04      1.845E-01
1981      2.153E+04      5.465E-04      2.102E-01
1982      2.460E+04      6.101E-04      2.347E-01
1983      2.768E+04      6.705E-04      2.579E-01
1984      3.075E+04      7.281E-04      2.801E-01
1985      3.075E+04      6.926E-04      2.664E-01
1986      3.075E+04      6.588E-04      2.534E-01
1987      3.075E+04      6.267E-04      2.411E-01
1988      3.075E+04      5.961E-04      2.293E-01
1989      3.075E+04      5.670E-04      2.181E-01
1990      3.075E+04      5.394E-04      2.075E-01
1991      3.075E+04      5.131E-04      1.974E-01
1992      3.075E+04      4.880E-04      1.877E-01
1993      3.075E+04      4.642E-04      1.786E-01
1994      3.075E+04      4.416E-04      1.699E-01
1995      3.075E+04      4.201E-04      1.616E-01
1996      3.075E+04      3.996E-04      1.537E-01
1997      3.075E+04      3.801E-04      1.462E-01
1998      3.075E+04      3.616E-04      1.391E-01
1999      3.075E+04      3.439E-04      1.323E-01
2000      3.075E+04      3.271E-04      1.258E-01
2001      3.075E+04      3.112E-04      1.197E-01
2002      3.075E+04      2.960E-04      1.139E-01
2003      3.075E+04      2.816E-04      1.083E-01
2004      3.075E+04      2.678E-04      1.030E-01
2005      3.075E+04      2.548E-04      9.801E-02
2006      3.075E+04      2.424E-04      9.323E-02
2007      3.075E+04      2.305E-04      8.868E-02
2008      3.075E+04      2.193E-04      8.436E-02
2009      3.075E+04      2.086E-04      8.024E-02
2010      3.075E+04      1.984E-04      7.633E-02
2011      3.075E+04      1.887E-04      7.261E-02
2012      3.075E+04      1.795E-04      6.907E-02
2013      3.075E+04      1.708E-04      6.570E-02
2014      3.075E+04      1.625E-04      6.249E-02
2015      3.075E+04      1.545E-04      5.945E-02
2016      3.075E+04      1.470E-04      5.655E-02
2017      3.075E+04      1.398E-04      5.379E-02
2018      3.075E+04      1.330E-04      5.117E-02
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continued

Table D-62. Emission Rate of Vinyl Chloride from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.075E+04            | 2.566E-04 | 4.695E-02    |
| 2020 | 3.075E+04            | 2.441E-04 | 4.466E-02    |
| 2021 | 3.075E+04            | 2.322E-04 | 4.248E-02    |
| 2022 | 3.075E+04            | 2.208E-04 | 4.041E-02    |
| 2023 | 3.075E+04            | 2.101E-04 | 3.844E-02    |
| 2024 | 3.075E+04            | 1.998E-04 | 3.657E-02    |
| 2025 | 3.075E+04            | 1.901E-04 | 3.478E-02    |
| 2026 | 3.075E+04            | 1.808E-04 | 3.309E-02    |
| 2027 | 3.075E+04            | 1.720E-04 | 3.147E-02    |
| 2028 | 3.075E+04            | 1.636E-04 | 2.994E-02    |
| 2029 | 3.075E+04            | 1.556E-04 | 2.848E-02    |
| 2030 | 3.075E+04            | 1.480E-04 | 2.709E-02    |
| 2031 | 3.075E+04            | 1.408E-04 | 2.577E-02    |
| 2032 | 3.075E+04            | 1.339E-04 | 2.451E-02    |
| 2033 | 3.075E+04            | 1.274E-04 | 2.332E-02    |
| 2034 | 3.075E+04            | 1.212E-04 | 2.218E-02    |
| 2035 | 3.075E+04            | 1.153E-04 | 2.110E-02    |
| 2036 | 3.075E+04            | 1.097E-04 | 2.007E-02    |
| 2037 | 3.075E+04            | 1.043E-04 | 1.909E-02    |
| 2038 | 3.075E+04            | 9.923E-05 | 1.816E-02    |
| 2039 | 3.075E+04            | 9.439E-05 | 1.727E-02    |
| 2040 | 3.075E+04            | 8.978E-05 | 1.643E-02    |
| 2041 | 3.075E+04            | 8.541E-05 | 1.563E-02    |
| 2042 | 3.075E+04            | 8.124E-05 | 1.487E-02    |
| 2043 | 3.075E+04            | 7.728E-05 | 1.414E-02    |
| 2044 | 3.075E+04            | 7.351E-05 | 1.345E-02    |
| 2045 | 3.075E+04            | 6.992E-05 | 1.280E-02    |
| 2046 | 3.075E+04            | 6.651E-05 | 1.217E-02    |
| 2047 | 3.075E+04            | 6.327E-05 | 1.158E-02    |
| 2048 | 3.075E+04            | 6.018E-05 | 1.101E-02    |
| 2049 | 3.075E+04            | 5.725E-05 | 1.048E-02    |
| 2050 | 3.075E+04            | 5.446E-05 | 9.966E-03    |
| 2051 | 3.075E+04            | 5.180E-05 | 9.480E-03    |
| 2052 | 3.075E+04            | 4.927E-05 | 9.017E-03    |
| 2053 | 3.075E+04            | 4.687E-05 | 8.578E-03    |
| 2054 | 3.075E+04            | 4.459E-05 | 8.159E-03    |
| 2055 | 3.075E+04            | 4.241E-05 | 7.761E-03    |
| 2056 | 3.075E+04            | 4.034E-05 | 7.383E-03    |
| 2057 | 3.075E+04            | 3.838E-05 | 7.023E-03    |
| 2058 | 3.075E+04            | 3.650E-05 | 6.680E-03    |
| 2059 | 3.075E+04            | 3.472E-05 | 6.354E-03    |
| 2060 | 3.075E+04            | 3.303E-05 | 6.044E-03    |
| 2061 | 3.075E+04            | 3.142E-05 | 5.750E-03    |
| 2062 | 3.075E+04            | 2.989E-05 | 5.469E-03    |
| 2063 | 3.075E+04            | 2.843E-05 | 5.203E-03    |
| 2064 | 3.075E+04            | 2.704E-05 | 4.949E-03    |
| 2065 | 3.075E+04            | 2.572E-05 | 4.707E-03    |
| 2066 | 3.075E+04            | 2.447E-05 | 4.478E-03    |
| 2067 | 3.075E+04            | 2.328E-05 | 4.259E-03    |
| 2068 | 3.075E+04            | 2.214E-05 | 4.052E-03    |
| 2069 | 3.075E+04            | 2.106E-05 | 3.854E-03    |
| 2070 | 3.075E+04            | 2.003E-05 | 3.666E-03    |
| 2071 | 3.075E+04            | 1.906E-05 | 3.487E-03    |
| 2072 | 3.075E+04            | 1.813E-05 | 3.317E-03    |
| 2073 | 3.075E+04            | 1.724E-05 | 3.156E-03    |
| 2074 | 3.075E+04            | 1.640E-05 | 3.002E-03    |
| 2075 | 3.075E+04            | 1.560E-05 | 2.855E-03    |
| 2076 | 3.075E+04            | 1.484E-05 | 2.716E-03    |
| 2077 | 3.075E+04            | 1.412E-05 | 2.584E-03    |
| 2078 | 3.075E+04            | 1.343E-05 | 2.458E-03    |
| 2079 | 3.075E+04            | 1.277E-05 | 2.338E-03    |
| 2080 | 3.075E+04            | 1.215E-05 | 2.224E-03    |
| 2081 | 3.075E+04            | 1.156E-05 | 2.115E-03    |
| 2082 | 3.075E+04            | 1.099E-05 | 2.012E-03    |
| 2083 | 3.075E+04            | 1.046E-05 | 1.914E-03    |
| 2084 | 3.075E+04            | 9.948E-06 | 1.821E-03    |
| 2085 | 3.075E+04            | 9.463E-06 | 1.732E-03    |
| 2086 | 3.075E+04            | 9.002E-06 | 1.647E-03    |
| 2087 | 3.075E+04            | 8.563E-06 | 1.567E-03    |
| 2088 | 3.075E+04            | 8.145E-06 | 1.491E-03    |

continued



Table D-62. Emission Rate of Vinyl Chloride from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.075E+04            | 3.821E-06 | 1.470E-03    |
| 2090 | 3.075E+04            | 3.634E-06 | 1.398E-03    |
| 2091 | 3.075E+04            | 3.457E-06 | 1.330E-03    |
| 2092 | 3.075E+04            | 3.288E-06 | 1.265E-03    |
| 2093 | 3.075E+04            | 3.128E-06 | 1.203E-03    |
| 2094 | 3.075E+04            | 2.976E-06 | 1.145E-03    |
| 2095 | 3.075E+04            | 2.830E-06 | 1.089E-03    |
| 2096 | 3.075E+04            | 2.692E-06 | 1.036E-03    |
| 2097 | 3.075E+04            | 2.561E-06 | 9.852E-04    |
| 2098 | 3.075E+04            | 2.436E-06 | 9.371E-04    |
| 2099 | 3.075E+04            | 2.317E-06 | 8.914E-04    |
| 2100 | 3.075E+04            | 2.204E-06 | 8.480E-04    |
| 2101 | 3.075E+04            | 2.097E-06 | 8.066E-04    |
| 2102 | 3.075E+04            | 1.995E-06 | 7.673E-04    |
| 2103 | 3.075E+04            | 1.897E-06 | 7.298E-04    |
| 2104 | 3.075E+04            | 1.805E-06 | 6.943E-04    |
| 2105 | 3.075E+04            | 1.717E-06 | 6.604E-04    |
| 2106 | 3.075E+04            | 1.633E-06 | 6.282E-04    |
| 2107 | 3.075E+04            | 1.553E-06 | 5.975E-04    |
| 2108 | 3.075E+04            | 1.478E-06 | 5.684E-04    |
| 2109 | 3.075E+04            | 1.406E-06 | 5.407E-04    |
| 2110 | 3.075E+04            | 1.337E-06 | 5.143E-04    |
| 2111 | 3.075E+04            | 1.272E-06 | 4.892E-04    |
| 2112 | 3.075E+04            | 1.210E-06 | 4.654E-04    |
| 2113 | 3.075E+04            | 1.151E-06 | 4.427E-04    |
| 2114 | 3.075E+04            | 1.095E-06 | 4.211E-04    |
| 2115 | 3.075E+04            | 1.041E-06 | 4.005E-04    |
| 2116 | 3.075E+04            | 9.905E-07 | 3.810E-04    |
| 2117 | 3.075E+04            | 9.422E-07 | 3.624E-04    |
| 2118 | 3.075E+04            | 8.962E-07 | 3.448E-04    |
| 2119 | 3.075E+04            | 8.525E-07 | 3.279E-04    |
| 2120 | 3.075E+04            | 8.109E-07 | 3.119E-04    |
| 2121 | 3.075E+04            | 7.714E-07 | 2.967E-04    |
| 2122 | 3.075E+04            | 7.338E-07 | 2.823E-04    |
| 2123 | 3.075E+04            | 6.980E-07 | 2.685E-04    |
| 2124 | 3.075E+04            | 6.639E-07 | 2.554E-04    |
| 2125 | 3.075E+04            | 6.315E-07 | 2.429E-04    |
| 2126 | 3.075E+04            | 6.007E-07 | 2.311E-04    |
| 2127 | 3.075E+04            | 5.714E-07 | 2.198E-04    |
| 2128 | 3.075E+04            | 5.436E-07 | 2.091E-04    |
| 2129 | 3.075E+04            | 5.171E-07 | 1.989E-04    |
| 2130 | 3.075E+04            | 4.918E-07 | 1.892E-04    |
| 2131 | 3.075E+04            | 4.679E-07 | 1.800E-04    |
| 2132 | 3.075E+04            | 4.450E-07 | 1.712E-04    |
| 2133 | 3.075E+04            | 4.233E-07 | 1.629E-04    |
| 2134 | 3.075E+04            | 4.027E-07 | 1.549E-04    |
| 2135 | 3.075E+04            | 3.831E-07 | 1.474E-04    |
| 2136 | 3.075E+04            | 3.644E-07 | 1.402E-04    |
| 2137 | 3.075E+04            | 3.466E-07 | 1.333E-04    |
| 2138 | 3.075E+04            | 3.297E-07 | 1.268E-04    |
| 2139 | 3.075E+04            | 3.136E-07 | 1.206E-04    |
| 2140 | 3.075E+04            | 2.983E-07 | 1.148E-04    |
| 2141 | 3.075E+04            | 2.838E-07 | 1.092E-04    |
| 2142 | 3.075E+04            | 2.699E-07 | 1.038E-04    |
| 2143 | 3.075E+04            | 2.568E-07 | 9.877E-05    |
| 2144 | 3.075E+04            | 2.442E-07 | 9.396E-05    |
| 2145 | 3.075E+04            | 2.323E-07 | 8.937E-05    |
| 2146 | 3.075E+04            | 2.210E-07 | 8.502E-05    |
| 2147 | 3.075E+04            | 2.102E-07 | 8.087E-05    |
| 2148 | 3.075E+04            | 2.000E-07 | 7.693E-05    |
| 2149 | 3.075E+04            | 1.902E-07 | 7.317E-05    |
| 2150 | 3.075E+04            | 1.809E-07 | 6.960E-05    |
| 2151 | 3.075E+04            | 1.721E-07 | 6.621E-05    |
| 2152 | 3.075E+04            | 1.637E-07 | 6.298E-05    |
| 2153 | 3.075E+04            | 1.557E-07 | 5.991E-05    |
| 2154 | 3.075E+04            | 1.481E-07 | 5.699E-05    |
| 2155 | 3.075E+04            | 1.409E-07 | 5.421E-05    |
| 2156 | 3.075E+04            | 1.340E-07 | 5.156E-05    |
| 2157 | 3.075E+04            | 1.275E-07 | 4.905E-05    |
| 2158 | 3.075E+04            | 1.213E-07 | 4.666E-05    |

continued

Table D-62. Emission Rate of Vinyl Chloride from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.075E+04            | 1.154E-07 | 4.438E-05    |
| 2160 | 3.075E+04            | 1.097E-07 | 4.222E-05    |
| 2161 | 3.075E+04            | 1.044E-07 | 4.016E-05    |
| 2162 | 3.075E+04            | 9.930E-08 | 3.820E-05    |
| 2163 | 3.075E+04            | 9.446E-08 | 3.634E-05    |
| 2164 | 3.075E+04            | 8.985E-08 | 3.456E-05    |
| 2165 | 3.075E+04            | 8.547E-08 | 3.288E-05    |
| 2166 | 3.075E+04            | 8.130E-08 | 3.128E-05    |
| 2167 | 3.075E+04            | 7.734E-08 | 2.975E-05    |
| 2168 | 3.075E+04            | 7.357E-08 | 2.830E-05    |
| 2169 | 3.075E+04            | 6.998E-08 | 2.692E-05    |
| 2170 | 3.075E+04            | 6.656E-08 | 2.561E-05    |
| 2171 | 3.075E+04            | 6.332E-08 | 2.436E-05    |
| 2172 | 3.075E+04            | 6.023E-08 | 2.317E-05    |
| 2173 | 3.075E+04            | 5.729E-08 | 2.204E-05    |
| 2174 | 3.075E+04            | 5.450E-08 | 2.096E-05    |
| 2175 | 3.075E+04            | 5.184E-08 | 1.994E-05    |
| 2176 | 3.075E+04            | 4.931E-08 | 1.897E-05    |
| 2177 | 3.075E+04            | 4.691E-08 | 1.804E-05    |
| 2178 | 3.075E+04            | 4.462E-08 | 1.716E-05    |
| 2179 | 3.075E+04            | 4.244E-08 | 1.633E-05    |
| 2180 | 3.075E+04            | 4.037E-08 | 1.553E-05    |
| 2181 | 3.075E+04            | 3.840E-08 | 1.477E-05    |
| 2182 | 3.075E+04            | 3.653E-08 | 1.405E-05    |
| 2183 | 3.075E+04            | 3.475E-08 | 1.337E-05    |
| 2184 | 3.075E+04            | 3.305E-08 | 1.272E-05    |
| 2185 | 3.075E+04            | 3.144E-08 | 1.210E-05    |
| 2186 | 3.075E+04            | 2.991E-08 | 1.151E-05    |
| 2187 | 3.075E+04            | 2.845E-08 | 1.094E-05    |
| 2188 | 3.075E+04            | 2.706E-08 | 1.041E-05    |
| 2189 | 3.075E+04            | 2.574E-08 | 9.903E-06    |
| 2190 | 3.075E+04            | 2.449E-08 | 9.420E-06    |
| 2191 | 3.075E+04            | 2.329E-08 | 8.961E-06    |
| 2192 | 3.075E+04            | 2.216E-08 | 8.524E-06    |
| 2193 | 3.075E+04            | 2.108E-08 | 8.108E-06    |
| 2194 | 3.075E+04            | 2.005E-08 | 7.712E-06    |
| 2195 | 3.075E+04            | 1.907E-08 | 7.336E-06    |
| 2196 | 3.075E+04            | 1.814E-08 | 6.979E-06    |
| 2197 | 3.075E+04            | 1.726E-08 | 6.638E-06    |
| 2198 | 3.075E+04            | 1.641E-08 | 6.314E-06    |
| 2199 | 3.075E+04            | 1.561E-08 | 6.006E-06    |
| 2200 | 3.075E+04            | 1.485E-08 | 5.714E-06    |
| 2201 | 3.075E+04            | 1.413E-08 | 5.435E-06    |
| 2202 | 3.075E+04            | 1.344E-08 | 5.170E-06    |

Table D-63. Emission Rate of m,p-Xylene from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA-1\STRATA4.PRM

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=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1870.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : mpXylene (HAP/VOC)
Molecular Wt = 106.17      Concentration =      1.260000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2003
Capacity : 30752 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 5271.79 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      mpXylene (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.075E+03      2.273E-04      5.146E-02
1976      6.150E+03      4.434E-04      1.004E-01
1977      9.226E+03      6.490E-04      1.470E-01
1978      1.230E+04      8.446E-04      1.913E-01
1979      1.538E+04      1.031E-03      2.334E-01
1980      1.845E+04      1.208E-03      2.735E-01
1981      2.153E+04      1.376E-03      3.116E-01
1982      2.460E+04      1.536E-03      3.479E-01
1983      2.768E+04      1.689E-03      3.824E-01
1984      3.075E+04      1.833E-03      4.152E-01
1985      3.075E+04      1.744E-03      3.949E-01
1986      3.075E+04      1.659E-03      3.757E-01
1987      3.075E+04      1.578E-03      3.573E-01
1988      3.075E+04      1.501E-03      3.399E-01
1989      3.075E+04      1.428E-03      3.233E-01
1990      3.075E+04      1.358E-03      3.076E-01
1991      3.075E+04      1.292E-03      2.926E-01
1992      3.075E+04      1.229E-03      2.783E-01
1993      3.075E+04      1.169E-03      2.647E-01
1994      3.075E+04      1.112E-03      2.518E-01
1995      3.075E+04      1.058E-03      2.395E-01
1996      3.075E+04      1.006E-03      2.279E-01
1997      3.075E+04      9.571E-04      2.167E-01
1998      3.075E+04      9.104E-04      2.062E-01
1999      3.075E+04      8.660E-04      1.961E-01
2000      3.075E+04      8.238E-04      1.866E-01
2001      3.075E+04      7.836E-04      1.775E-01
2002      3.075E+04      7.454E-04      1.688E-01
2003      3.075E+04      7.090E-04      1.606E-01
2004      3.075E+04      6.745E-04      1.527E-01
2005      3.075E+04      6.416E-04      1.453E-01
2006      3.075E+04      6.103E-04      1.382E-01
2007      3.075E+04      5.805E-04      1.315E-01
2008      3.075E+04      5.522E-04      1.250E-01
2009      3.075E+04      5.253E-04      1.190E-01
2010      3.075E+04      4.997E-04      1.131E-01
2011      3.075E+04      4.753E-04      1.076E-01
2012      3.075E+04      4.521E-04      1.024E-01
2013      3.075E+04      4.301E-04      9.739E-02
2014      3.075E+04      4.091E-04      9.264E-02
2015      3.075E+04      3.891E-04      8.812E-02
2016      3.075E+04      3.702E-04      8.382E-02
2017      3.075E+04      3.521E-04      7.974E-02
2018      3.075E+04      3.349E-04      7.585E-02
=====

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continued

Table D-63. Emission Rate of m,p-Xylene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.075E+04            | 3.186E-04 | 7.215E-02    |
| 2020 | 3.075E+04            | 3.031E-04 | 6.863E-02    |
| 2021 | 3.075E+04            | 2.883E-04 | 6.528E-02    |
| 2022 | 3.075E+04            | 2.742E-04 | 6.210E-02    |
| 2023 | 3.075E+04            | 2.608E-04 | 5.907E-02    |
| 2024 | 3.075E+04            | 2.481E-04 | 5.619E-02    |
| 2025 | 3.075E+04            | 2.360E-04 | 5.345E-02    |
| 2026 | 3.075E+04            | 2.245E-04 | 5.084E-02    |
| 2027 | 3.075E+04            | 2.136E-04 | 4.836E-02    |
| 2028 | 3.075E+04            | 2.031E-04 | 4.600E-02    |
| 2029 | 3.075E+04            | 1.932E-04 | 4.376E-02    |
| 2030 | 3.075E+04            | 1.838E-04 | 4.163E-02    |
| 2031 | 3.075E+04            | 1.748E-04 | 3.960E-02    |
| 2032 | 3.075E+04            | 1.663E-04 | 3.766E-02    |
| 2033 | 3.075E+04            | 1.582E-04 | 3.583E-02    |
| 2034 | 3.075E+04            | 1.505E-04 | 3.408E-02    |
| 2035 | 3.075E+04            | 1.432E-04 | 3.242E-02    |
| 2036 | 3.075E+04            | 1.362E-04 | 3.084E-02    |
| 2037 | 3.075E+04            | 1.295E-04 | 2.933E-02    |
| 2038 | 3.075E+04            | 1.232E-04 | 2.790E-02    |
| 2039 | 3.075E+04            | 1.172E-04 | 2.654E-02    |
| 2040 | 3.075E+04            | 1.115E-04 | 2.525E-02    |
| 2041 | 3.075E+04            | 1.061E-04 | 2.402E-02    |
| 2042 | 3.075E+04            | 1.009E-04 | 2.284E-02    |
| 2043 | 3.075E+04            | 9.596E-05 | 2.173E-02    |
| 2044 | 3.075E+04            | 9.128E-05 | 2.067E-02    |
| 2045 | 3.075E+04            | 8.683E-05 | 1.966E-02    |
| 2046 | 3.075E+04            | 8.259E-05 | 1.870E-02    |
| 2047 | 3.075E+04            | 7.856E-05 | 1.779E-02    |
| 2048 | 3.075E+04            | 7.473E-05 | 1.692E-02    |
| 2049 | 3.075E+04            | 7.109E-05 | 1.610E-02    |
| 2050 | 3.075E+04            | 6.762E-05 | 1.531E-02    |
| 2051 | 3.075E+04            | 6.432E-05 | 1.457E-02    |
| 2052 | 3.075E+04            | 6.119E-05 | 1.386E-02    |
| 2053 | 3.075E+04            | 5.820E-05 | 1.318E-02    |
| 2054 | 3.075E+04            | 5.536E-05 | 1.254E-02    |
| 2055 | 3.075E+04            | 5.266E-05 | 1.193E-02    |
| 2056 | 3.075E+04            | 5.010E-05 | 1.134E-02    |
| 2057 | 3.075E+04            | 4.765E-05 | 1.079E-02    |
| 2058 | 3.075E+04            | 4.533E-05 | 1.026E-02    |
| 2059 | 3.075E+04            | 4.312E-05 | 9.764E-03    |
| 2060 | 3.075E+04            | 4.101E-05 | 9.288E-03    |
| 2061 | 3.075E+04            | 3.901E-05 | 8.835E-03    |
| 2062 | 3.075E+04            | 3.711E-05 | 8.404E-03    |
| 2063 | 3.075E+04            | 3.530E-05 | 7.994E-03    |
| 2064 | 3.075E+04            | 3.358E-05 | 7.604E-03    |
| 2065 | 3.075E+04            | 3.194E-05 | 7.233E-03    |
| 2066 | 3.075E+04            | 3.038E-05 | 6.881E-03    |
| 2067 | 3.075E+04            | 2.890E-05 | 6.545E-03    |
| 2068 | 3.075E+04            | 2.749E-05 | 6.226E-03    |
| 2069 | 3.075E+04            | 2.615E-05 | 5.922E-03    |
| 2070 | 3.075E+04            | 2.488E-05 | 5.633E-03    |
| 2071 | 3.075E+04            | 2.366E-05 | 5.359E-03    |
| 2072 | 3.075E+04            | 2.251E-05 | 5.097E-03    |
| 2073 | 3.075E+04            | 2.141E-05 | 4.849E-03    |
| 2074 | 3.075E+04            | 2.037E-05 | 4.612E-03    |
| 2075 | 3.075E+04            | 1.937E-05 | 4.387E-03    |
| 2076 | 3.075E+04            | 1.843E-05 | 4.173E-03    |
| 2077 | 3.075E+04            | 1.753E-05 | 3.970E-03    |
| 2078 | 3.075E+04            | 1.668E-05 | 3.776E-03    |
| 2079 | 3.075E+04            | 1.586E-05 | 3.592E-03    |
| 2080 | 3.075E+04            | 1.509E-05 | 3.417E-03    |
| 2081 | 3.075E+04            | 1.435E-05 | 3.250E-03    |
| 2082 | 3.075E+04            | 1.365E-05 | 3.092E-03    |
| 2083 | 3.075E+04            | 1.299E-05 | 2.941E-03    |
| 2084 | 3.075E+04            | 1.235E-05 | 2.797E-03    |
| 2085 | 3.075E+04            | 1.175E-05 | 2.661E-03    |
| 2086 | 3.075E+04            | 1.118E-05 | 2.531E-03    |
| 2087 | 3.075E+04            | 1.063E-05 | 2.408E-03    |
| 2088 | 3.075E+04            | 1.011E-05 | 2.290E-03    |

continued

Table D-63. Emission Rate of m,p-Xylene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.075E+04            | 9.621E-06 | 2.179E-03    |
| 2090 | 3.075E+04            | 9.152E-06 | 2.072E-03    |
| 2091 | 3.075E+04            | 8.705E-06 | 1.971E-03    |
| 2092 | 3.075E+04            | 8.281E-06 | 1.875E-03    |
| 2093 | 3.075E+04            | 7.877E-06 | 1.784E-03    |
| 2094 | 3.075E+04            | 7.493E-06 | 1.697E-03    |
| 2095 | 3.075E+04            | 7.127E-06 | 1.614E-03    |
| 2096 | 3.075E+04            | 6.780E-06 | 1.535E-03    |
| 2097 | 3.075E+04            | 6.449E-06 | 1.460E-03    |
| 2098 | 3.075E+04            | 6.134E-06 | 1.389E-03    |
| 2099 | 3.075E+04            | 5.835E-06 | 1.321E-03    |
| 2100 | 3.075E+04            | 5.551E-06 | 1.257E-03    |
| 2101 | 3.075E+04            | 5.280E-06 | 1.196E-03    |
| 2102 | 3.075E+04            | 5.022E-06 | 1.137E-03    |
| 2103 | 3.075E+04            | 4.778E-06 | 1.082E-03    |
| 2104 | 3.075E+04            | 4.545E-06 | 1.029E-03    |
| 2105 | 3.075E+04            | 4.323E-06 | 9.789E-04    |
| 2106 | 3.075E+04            | 4.112E-06 | 9.312E-04    |
| 2107 | 3.075E+04            | 3.912E-06 | 8.858E-04    |
| 2108 | 3.075E+04            | 3.721E-06 | 8.426E-04    |
| 2109 | 3.075E+04            | 3.539E-06 | 8.015E-04    |
| 2110 | 3.075E+04            | 3.367E-06 | 7.624E-04    |
| 2111 | 3.075E+04            | 3.202E-06 | 7.252E-04    |
| 2112 | 3.075E+04            | 3.046E-06 | 6.898E-04    |
| 2113 | 3.075E+04            | 2.898E-06 | 6.562E-04    |
| 2114 | 3.075E+04            | 2.756E-06 | 6.242E-04    |
| 2115 | 3.075E+04            | 2.622E-06 | 5.938E-04    |
| 2116 | 3.075E+04            | 2.494E-06 | 5.648E-04    |
| 2117 | 3.075E+04            | 2.372E-06 | 5.373E-04    |
| 2118 | 3.075E+04            | 2.257E-06 | 5.110E-04    |
| 2119 | 3.075E+04            | 2.147E-06 | 4.861E-04    |
| 2120 | 3.075E+04            | 2.042E-06 | 4.624E-04    |
| 2121 | 3.075E+04            | 1.942E-06 | 4.399E-04    |
| 2122 | 3.075E+04            | 1.848E-06 | 4.184E-04    |
| 2123 | 3.075E+04            | 1.758E-06 | 3.980E-04    |
| 2124 | 3.075E+04            | 1.672E-06 | 3.786E-04    |
| 2125 | 3.075E+04            | 1.590E-06 | 3.601E-04    |
| 2126 | 3.075E+04            | 1.513E-06 | 3.426E-04    |
| 2127 | 3.075E+04            | 1.439E-06 | 3.259E-04    |
| 2128 | 3.075E+04            | 1.369E-06 | 3.100E-04    |
| 2129 | 3.075E+04            | 1.302E-06 | 2.948E-04    |
| 2130 | 3.075E+04            | 1.239E-06 | 2.805E-04    |
| 2131 | 3.075E+04            | 1.178E-06 | 2.668E-04    |
| 2132 | 3.075E+04            | 1.121E-06 | 2.538E-04    |
| 2133 | 3.075E+04            | 1.066E-06 | 2.414E-04    |
| 2134 | 3.075E+04            | 1.014E-06 | 2.296E-04    |
| 2135 | 3.075E+04            | 9.646E-07 | 2.184E-04    |
| 2136 | 3.075E+04            | 9.175E-07 | 2.078E-04    |
| 2137 | 3.075E+04            | 8.728E-07 | 1.976E-04    |
| 2138 | 3.075E+04            | 8.302E-07 | 1.880E-04    |
| 2139 | 3.075E+04            | 7.897E-07 | 1.788E-04    |
| 2140 | 3.075E+04            | 7.512E-07 | 1.701E-04    |
| 2141 | 3.075E+04            | 7.146E-07 | 1.618E-04    |
| 2142 | 3.075E+04            | 6.797E-07 | 1.539E-04    |
| 2143 | 3.075E+04            | 6.466E-07 | 1.464E-04    |
| 2144 | 3.075E+04            | 6.150E-07 | 1.393E-04    |
| 2145 | 3.075E+04            | 5.850E-07 | 1.325E-04    |
| 2146 | 3.075E+04            | 5.565E-07 | 1.260E-04    |
| 2147 | 3.075E+04            | 5.294E-07 | 1.199E-04    |
| 2148 | 3.075E+04            | 5.035E-07 | 1.140E-04    |
| 2149 | 3.075E+04            | 4.790E-07 | 1.085E-04    |
| 2150 | 3.075E+04            | 4.556E-07 | 1.032E-04    |
| 2151 | 3.075E+04            | 4.334E-07 | 9.815E-05    |
| 2152 | 3.075E+04            | 4.123E-07 | 9.336E-05    |
| 2153 | 3.075E+04            | 3.922E-07 | 8.881E-05    |
| 2154 | 3.075E+04            | 3.730E-07 | 8.448E-05    |
| 2155 | 3.075E+04            | 3.548E-07 | 8.036E-05    |
| 2156 | 3.075E+04            | 3.375E-07 | 7.644E-05    |
| 2157 | 3.075E+04            | 3.211E-07 | 7.271E-05    |
| 2158 | 3.075E+04            | 3.054E-07 | 6.916E-05    |

continued

Table D-63. Emission Rate of m,p-Xylene from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.075E+04            | 2.905E-07 | 6.579E-05    |
| 2160 | 3.075E+04            | 2.764E-07 | 6.258E-05    |
| 2161 | 3.075E+04            | 2.629E-07 | 5.953E-05    |
| 2162 | 3.075E+04            | 2.501E-07 | 5.663E-05    |
| 2163 | 3.075E+04            | 2.379E-07 | 5.386E-05    |
| 2164 | 3.075E+04            | 2.263E-07 | 5.124E-05    |
| 2165 | 3.075E+04            | 2.152E-07 | 4.874E-05    |
| 2166 | 3.075E+04            | 2.047E-07 | 4.636E-05    |
| 2167 | 3.075E+04            | 1.947E-07 | 4.410E-05    |
| 2168 | 3.075E+04            | 1.852E-07 | 4.195E-05    |
| 2169 | 3.075E+04            | 1.762E-07 | 3.990E-05    |
| 2170 | 3.075E+04            | 1.676E-07 | 3.796E-05    |
| 2171 | 3.075E+04            | 1.594E-07 | 3.611E-05    |
| 2172 | 3.075E+04            | 1.517E-07 | 3.435E-05    |
| 2173 | 3.075E+04            | 1.443E-07 | 3.267E-05    |
| 2174 | 3.075E+04            | 1.372E-07 | 3.108E-05    |
| 2175 | 3.075E+04            | 1.305E-07 | 2.956E-05    |
| 2176 | 3.075E+04            | 1.242E-07 | 2.812E-05    |
| 2177 | 3.075E+04            | 1.181E-07 | 2.675E-05    |
| 2178 | 3.075E+04            | 1.124E-07 | 2.544E-05    |
| 2179 | 3.075E+04            | 1.069E-07 | 2.420E-05    |
| 2180 | 3.075E+04            | 1.017E-07 | 2.302E-05    |
| 2181 | 3.075E+04            | 9.671E-08 | 2.190E-05    |
| 2182 | 3.075E+04            | 9.199E-08 | 2.083E-05    |
| 2183 | 3.075E+04            | 8.750E-08 | 1.982E-05    |
| 2184 | 3.075E+04            | 8.324E-08 | 1.885E-05    |
| 2185 | 3.075E+04            | 7.918E-08 | 1.793E-05    |
| 2186 | 3.075E+04            | 7.531E-08 | 1.706E-05    |
| 2187 | 3.075E+04            | 7.164E-08 | 1.622E-05    |
| 2188 | 3.075E+04            | 6.815E-08 | 1.543E-05    |
| 2189 | 3.075E+04            | 6.482E-08 | 1.468E-05    |
| 2190 | 3.075E+04            | 6.166E-08 | 1.396E-05    |
| 2191 | 3.075E+04            | 5.866E-08 | 1.328E-05    |
| 2192 | 3.075E+04            | 5.579E-08 | 1.263E-05    |
| 2193 | 3.075E+04            | 5.307E-08 | 1.202E-05    |
| 2194 | 3.075E+04            | 5.049E-08 | 1.143E-05    |
| 2195 | 3.075E+04            | 4.802E-08 | 1.087E-05    |
| 2196 | 3.075E+04            | 4.568E-08 | 1.034E-05    |
| 2197 | 3.075E+04            | 4.345E-08 | 9.840E-06    |
| 2198 | 3.075E+04            | 4.133E-08 | 9.360E-06    |
| 2199 | 3.075E+04            | 3.932E-08 | 8.904E-06    |
| 2200 | 3.075E+04            | 3.740E-08 | 8.469E-06    |
| 2201 | 3.075E+04            | 3.558E-08 | 8.056E-06    |
| 2202 | 3.075E+04            | 3.384E-08 | 7.663E-06    |

Table D-64. Emission Rate of o-Xylene from Parcel 4 for Years 1975 to 2203.

Source: H:\3000\030177~2.000\030177~1.003\BUSHVA~1\STRATA4.PRM

```

=====
                          Model Parameters
=====
Lo : 170.00 m^3 / Mg
k : 0.0500 1/yr
NMOC : 1870.00 ppmv
Methane : 64.0000 % volume
Carbon Dioxide : 36.0000 % volume
Air Pollutant : oXylene (HAP/VOC)
Molecular Wt = 106.17      Concentration =      0.300000 ppmV
=====

                          Landfill Parameters
=====
Landfill type : Co-Disposal
Year Opened : 1974      Current Year : 2004      Closure Year: 2003
Capacity : 30752 Mg
Average Acceptance Rate Required from
      Current Year to Closure Year : 5271.79 Mg/year
=====

                          Model Results
=====
Year      Refuse In Place (Mg)      oXylene (HAP/VOC) Emission Rate
                          (Mg/yr)      (Cubic m/yr)
=====
1975      3.075E+03      5.411E-05      1.225E-02
1976      6.150E+03      1.056E-04      2.391E-02
1977      9.226E+03      1.545E-04      3.499E-02
1978      1.230E+04      2.011E-04      4.554E-02
1979      1.538E+04      2.454E-04      5.557E-02
1980      1.845E+04      2.875E-04      6.512E-02
1981      2.153E+04      3.276E-04      7.419E-02
1982      2.460E+04      3.658E-04      8.283E-02
1983      2.768E+04      4.020E-04      9.104E-02
1984      3.075E+04      4.365E-04      9.885E-02
1985      3.075E+04      4.152E-04      9.403E-02
1986      3.075E+04      3.950E-04      8.945E-02
1987      3.075E+04      3.757E-04      8.508E-02
1988      3.075E+04      3.574E-04      8.093E-02
1989      3.075E+04      3.400E-04      7.699E-02
1990      3.075E+04      3.234E-04      7.323E-02
1991      3.075E+04      3.076E-04      6.966E-02
1992      3.075E+04      2.926E-04      6.626E-02
1993      3.075E+04      2.783E-04      6.303E-02
1994      3.075E+04      2.648E-04      5.996E-02
1995      3.075E+04      2.519E-04      5.703E-02
1996      3.075E+04      2.396E-04      5.425E-02
1997      3.075E+04      2.279E-04      5.161E-02
1998      3.075E+04      2.168E-04      4.909E-02
1999      3.075E+04      2.062E-04      4.669E-02
2000      3.075E+04      1.961E-04      4.442E-02
2001      3.075E+04      1.866E-04      4.225E-02
2002      3.075E+04      1.775E-04      4.019E-02
2003      3.075E+04      1.688E-04      3.823E-02
2004      3.075E+04      1.606E-04      3.637E-02
2005      3.075E+04      1.528E-04      3.459E-02
2006      3.075E+04      1.453E-04      3.291E-02
2007      3.075E+04      1.382E-04      3.130E-02
2008      3.075E+04      1.315E-04      2.977E-02
2009      3.075E+04      1.251E-04      2.832E-02
2010      3.075E+04      1.190E-04      2.694E-02
2011      3.075E+04      1.132E-04      2.563E-02
2012      3.075E+04      1.076E-04      2.438E-02
2013      3.075E+04      1.024E-04      2.319E-02
2014      3.075E+04      9.740E-05      2.206E-02
2015      3.075E+04      9.265E-05      2.098E-02
2016      3.075E+04      8.813E-05      1.996E-02
2017      3.075E+04      8.383E-05      1.898E-02
2018      3.075E+04      7.975E-05      1.806E-02
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continued

Table D-64. Emission Rate of o-Xylene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2019 | 3.075E+04            | 7.586E-05 | 1.718E-02    |
| 2020 | 3.075E+04            | 7.216E-05 | 1.634E-02    |
| 2021 | 3.075E+04            | 6.864E-05 | 1.554E-02    |
| 2022 | 3.075E+04            | 6.529E-05 | 1.479E-02    |
| 2023 | 3.075E+04            | 6.211E-05 | 1.406E-02    |
| 2024 | 3.075E+04            | 5.908E-05 | 1.338E-02    |
| 2025 | 3.075E+04            | 5.620E-05 | 1.273E-02    |
| 2026 | 3.075E+04            | 5.345E-05 | 1.211E-02    |
| 2027 | 3.075E+04            | 5.085E-05 | 1.151E-02    |
| 2028 | 3.075E+04            | 4.837E-05 | 1.095E-02    |
| 2029 | 3.075E+04            | 4.601E-05 | 1.042E-02    |
| 2030 | 3.075E+04            | 4.377E-05 | 9.911E-03    |
| 2031 | 3.075E+04            | 4.163E-05 | 9.427E-03    |
| 2032 | 3.075E+04            | 3.960E-05 | 8.968E-03    |
| 2033 | 3.075E+04            | 3.767E-05 | 8.530E-03    |
| 2034 | 3.075E+04            | 3.583E-05 | 8.114E-03    |
| 2035 | 3.075E+04            | 3.408E-05 | 7.719E-03    |
| 2036 | 3.075E+04            | 3.242E-05 | 7.342E-03    |
| 2037 | 3.075E+04            | 3.084E-05 | 6.984E-03    |
| 2038 | 3.075E+04            | 2.934E-05 | 6.643E-03    |
| 2039 | 3.075E+04            | 2.791E-05 | 6.319E-03    |
| 2040 | 3.075E+04            | 2.654E-05 | 6.011E-03    |
| 2041 | 3.075E+04            | 2.525E-05 | 5.718E-03    |
| 2042 | 3.075E+04            | 2.402E-05 | 5.439E-03    |
| 2043 | 3.075E+04            | 2.285E-05 | 5.174E-03    |
| 2044 | 3.075E+04            | 2.173E-05 | 4.922E-03    |
| 2045 | 3.075E+04            | 2.067E-05 | 4.682E-03    |
| 2046 | 3.075E+04            | 1.966E-05 | 4.453E-03    |
| 2047 | 3.075E+04            | 1.871E-05 | 4.236E-03    |
| 2048 | 3.075E+04            | 1.779E-05 | 4.029E-03    |
| 2049 | 3.075E+04            | 1.693E-05 | 3.833E-03    |
| 2050 | 3.075E+04            | 1.610E-05 | 3.646E-03    |
| 2051 | 3.075E+04            | 1.532E-05 | 3.468E-03    |
| 2052 | 3.075E+04            | 1.457E-05 | 3.299E-03    |
| 2053 | 3.075E+04            | 1.386E-05 | 3.138E-03    |
| 2054 | 3.075E+04            | 1.318E-05 | 2.985E-03    |
| 2055 | 3.075E+04            | 1.254E-05 | 2.839E-03    |
| 2056 | 3.075E+04            | 1.193E-05 | 2.701E-03    |
| 2057 | 3.075E+04            | 1.135E-05 | 2.569E-03    |
| 2058 | 3.075E+04            | 1.079E-05 | 2.444E-03    |
| 2059 | 3.075E+04            | 1.027E-05 | 2.325E-03    |
| 2060 | 3.075E+04            | 9.765E-06 | 2.211E-03    |
| 2061 | 3.075E+04            | 9.289E-06 | 2.104E-03    |
| 2062 | 3.075E+04            | 8.836E-06 | 2.001E-03    |
| 2063 | 3.075E+04            | 8.405E-06 | 1.903E-03    |
| 2064 | 3.075E+04            | 7.995E-06 | 1.811E-03    |
| 2065 | 3.075E+04            | 7.605E-06 | 1.722E-03    |
| 2066 | 3.075E+04            | 7.234E-06 | 1.638E-03    |
| 2067 | 3.075E+04            | 6.882E-06 | 1.558E-03    |
| 2068 | 3.075E+04            | 6.546E-06 | 1.482E-03    |
| 2069 | 3.075E+04            | 6.227E-06 | 1.410E-03    |
| 2070 | 3.075E+04            | 5.923E-06 | 1.341E-03    |
| 2071 | 3.075E+04            | 5.634E-06 | 1.276E-03    |
| 2072 | 3.075E+04            | 5.359E-06 | 1.214E-03    |
| 2073 | 3.075E+04            | 5.098E-06 | 1.154E-03    |
| 2074 | 3.075E+04            | 4.849E-06 | 1.098E-03    |
| 2075 | 3.075E+04            | 4.613E-06 | 1.045E-03    |
| 2076 | 3.075E+04            | 4.388E-06 | 9.936E-04    |
| 2077 | 3.075E+04            | 4.174E-06 | 9.452E-04    |
| 2078 | 3.075E+04            | 3.970E-06 | 8.991E-04    |
| 2079 | 3.075E+04            | 3.777E-06 | 8.552E-04    |
| 2080 | 3.075E+04            | 3.592E-06 | 8.135E-04    |
| 2081 | 3.075E+04            | 3.417E-06 | 7.739E-04    |
| 2082 | 3.075E+04            | 3.251E-06 | 7.361E-04    |
| 2083 | 3.075E+04            | 3.092E-06 | 7.002E-04    |
| 2084 | 3.075E+04            | 2.941E-06 | 6.661E-04    |
| 2085 | 3.075E+04            | 2.798E-06 | 6.336E-04    |
| 2086 | 3.075E+04            | 2.661E-06 | 6.027E-04    |
| 2087 | 3.075E+04            | 2.532E-06 | 5.733E-04    |
| 2088 | 3.075E+04            | 2.408E-06 | 5.453E-04    |

continued



Table D-64. Emission Rate of o-Xylene from Parcel 4 for Years 1975 to 2203 (continued).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2089 | 3.075E+04            | 2.291E-06 | 5.187E-04    |
| 2090 | 3.075E+04            | 2.179E-06 | 4.934E-04    |
| 2091 | 3.075E+04            | 2.073E-06 | 4.694E-04    |
| 2092 | 3.075E+04            | 1.972E-06 | 4.465E-04    |
| 2093 | 3.075E+04            | 1.875E-06 | 4.247E-04    |
| 2094 | 3.075E+04            | 1.784E-06 | 4.040E-04    |
| 2095 | 3.075E+04            | 1.697E-06 | 3.843E-04    |
| 2096 | 3.075E+04            | 1.614E-06 | 3.655E-04    |
| 2097 | 3.075E+04            | 1.535E-06 | 3.477E-04    |
| 2098 | 3.075E+04            | 1.461E-06 | 3.308E-04    |
| 2099 | 3.075E+04            | 1.389E-06 | 3.146E-04    |
| 2100 | 3.075E+04            | 1.322E-06 | 2.993E-04    |
| 2101 | 3.075E+04            | 1.257E-06 | 2.847E-04    |
| 2102 | 3.075E+04            | 1.196E-06 | 2.708E-04    |
| 2103 | 3.075E+04            | 1.138E-06 | 2.576E-04    |
| 2104 | 3.075E+04            | 1.082E-06 | 2.450E-04    |
| 2105 | 3.075E+04            | 1.029E-06 | 2.331E-04    |
| 2106 | 3.075E+04            | 9.791E-07 | 2.217E-04    |
| 2107 | 3.075E+04            | 9.313E-07 | 2.109E-04    |
| 2108 | 3.075E+04            | 8.859E-07 | 2.006E-04    |
| 2109 | 3.075E+04            | 8.427E-07 | 1.908E-04    |
| 2110 | 3.075E+04            | 8.016E-07 | 1.815E-04    |
| 2111 | 3.075E+04            | 7.625E-07 | 1.727E-04    |
| 2112 | 3.075E+04            | 7.253E-07 | 1.642E-04    |
| 2113 | 3.075E+04            | 6.899E-07 | 1.562E-04    |
| 2114 | 3.075E+04            | 6.563E-07 | 1.486E-04    |
| 2115 | 3.075E+04            | 6.243E-07 | 1.414E-04    |
| 2116 | 3.075E+04            | 5.938E-07 | 1.345E-04    |
| 2117 | 3.075E+04            | 5.649E-07 | 1.279E-04    |
| 2118 | 3.075E+04            | 5.373E-07 | 1.217E-04    |
| 2119 | 3.075E+04            | 5.111E-07 | 1.157E-04    |
| 2120 | 3.075E+04            | 4.862E-07 | 1.101E-04    |
| 2121 | 3.075E+04            | 4.625E-07 | 1.047E-04    |
| 2122 | 3.075E+04            | 4.399E-07 | 9.962E-05    |
| 2123 | 3.075E+04            | 4.185E-07 | 9.476E-05    |
| 2124 | 3.075E+04            | 3.981E-07 | 9.014E-05    |
| 2125 | 3.075E+04            | 3.786E-07 | 8.575E-05    |
| 2126 | 3.075E+04            | 3.602E-07 | 8.156E-05    |
| 2127 | 3.075E+04            | 3.426E-07 | 7.759E-05    |
| 2128 | 3.075E+04            | 3.259E-07 | 7.380E-05    |
| 2129 | 3.075E+04            | 3.100E-07 | 7.020E-05    |
| 2130 | 3.075E+04            | 2.949E-07 | 6.678E-05    |
| 2131 | 3.075E+04            | 2.805E-07 | 6.352E-05    |
| 2132 | 3.075E+04            | 2.668E-07 | 6.042E-05    |
| 2133 | 3.075E+04            | 2.538E-07 | 5.748E-05    |
| 2134 | 3.075E+04            | 2.414E-07 | 5.467E-05    |
| 2135 | 3.075E+04            | 2.297E-07 | 5.201E-05    |
| 2136 | 3.075E+04            | 2.185E-07 | 4.947E-05    |
| 2137 | 3.075E+04            | 2.078E-07 | 4.706E-05    |
| 2138 | 3.075E+04            | 1.977E-07 | 4.476E-05    |
| 2139 | 3.075E+04            | 1.880E-07 | 4.258E-05    |
| 2140 | 3.075E+04            | 1.789E-07 | 4.050E-05    |
| 2141 | 3.075E+04            | 1.701E-07 | 3.853E-05    |
| 2142 | 3.075E+04            | 1.618E-07 | 3.665E-05    |
| 2143 | 3.075E+04            | 1.539E-07 | 3.486E-05    |
| 2144 | 3.075E+04            | 1.464E-07 | 3.316E-05    |
| 2145 | 3.075E+04            | 1.393E-07 | 3.154E-05    |
| 2146 | 3.075E+04            | 1.325E-07 | 3.001E-05    |
| 2147 | 3.075E+04            | 1.260E-07 | 2.854E-05    |
| 2148 | 3.075E+04            | 1.199E-07 | 2.715E-05    |
| 2149 | 3.075E+04            | 1.140E-07 | 2.583E-05    |
| 2150 | 3.075E+04            | 1.085E-07 | 2.457E-05    |
| 2151 | 3.075E+04            | 1.032E-07 | 2.337E-05    |
| 2152 | 3.075E+04            | 9.816E-08 | 2.223E-05    |
| 2153 | 3.075E+04            | 9.337E-08 | 2.114E-05    |
| 2154 | 3.075E+04            | 8.882E-08 | 2.011E-05    |
| 2155 | 3.075E+04            | 8.449E-08 | 1.913E-05    |
| 2156 | 3.075E+04            | 8.037E-08 | 1.820E-05    |
| 2157 | 3.075E+04            | 7.645E-08 | 1.731E-05    |
| 2158 | 3.075E+04            | 7.272E-08 | 1.647E-05    |

continued

Table D-64. Emission Rate of o-Xylene from Parcel 4 for Years 1975 to 2203 (concluded).

| Year | Refuse In Place (Mg) | (Mg/yr)   | (Cubic m/yr) |
|------|----------------------|-----------|--------------|
| 2159 | 3.075E+04            | 6.917E-08 | 1.566E-05    |
| 2160 | 3.075E+04            | 6.580E-08 | 1.490E-05    |
| 2161 | 3.075E+04            | 6.259E-08 | 1.417E-05    |
| 2162 | 3.075E+04            | 5.954E-08 | 1.348E-05    |
| 2163 | 3.075E+04            | 5.663E-08 | 1.282E-05    |
| 2164 | 3.075E+04            | 5.387E-08 | 1.220E-05    |
| 2165 | 3.075E+04            | 5.124E-08 | 1.160E-05    |
| 2166 | 3.075E+04            | 4.874E-08 | 1.104E-05    |
| 2167 | 3.075E+04            | 4.637E-08 | 1.050E-05    |
| 2168 | 3.075E+04            | 4.411E-08 | 9.988E-06    |
| 2169 | 3.075E+04            | 4.195E-08 | 9.501E-06    |
| 2170 | 3.075E+04            | 3.991E-08 | 9.037E-06    |
| 2171 | 3.075E+04            | 3.796E-08 | 8.597E-06    |
| 2172 | 3.075E+04            | 3.611E-08 | 8.177E-06    |
| 2173 | 3.075E+04            | 3.435E-08 | 7.779E-06    |
| 2174 | 3.075E+04            | 3.267E-08 | 7.399E-06    |
| 2175 | 3.075E+04            | 3.108E-08 | 7.038E-06    |
| 2176 | 3.075E+04            | 2.957E-08 | 6.695E-06    |
| 2177 | 3.075E+04            | 2.812E-08 | 6.369E-06    |
| 2178 | 3.075E+04            | 2.675E-08 | 6.058E-06    |
| 2179 | 3.075E+04            | 2.545E-08 | 5.763E-06    |
| 2180 | 3.075E+04            | 2.421E-08 | 5.482E-06    |
| 2181 | 3.075E+04            | 2.303E-08 | 5.214E-06    |
| 2182 | 3.075E+04            | 2.190E-08 | 4.960E-06    |
| 2183 | 3.075E+04            | 2.083E-08 | 4.718E-06    |
| 2184 | 3.075E+04            | 1.982E-08 | 4.488E-06    |
| 2185 | 3.075E+04            | 1.885E-08 | 4.269E-06    |
| 2186 | 3.075E+04            | 1.793E-08 | 4.061E-06    |
| 2187 | 3.075E+04            | 1.706E-08 | 3.863E-06    |
| 2188 | 3.075E+04            | 1.623E-08 | 3.674E-06    |
| 2189 | 3.075E+04            | 1.543E-08 | 3.495E-06    |
| 2190 | 3.075E+04            | 1.468E-08 | 3.325E-06    |
| 2191 | 3.075E+04            | 1.397E-08 | 3.163E-06    |
| 2192 | 3.075E+04            | 1.328E-08 | 3.008E-06    |
| 2193 | 3.075E+04            | 1.264E-08 | 2.862E-06    |
| 2194 | 3.075E+04            | 1.202E-08 | 2.722E-06    |
| 2195 | 3.075E+04            | 1.143E-08 | 2.589E-06    |
| 2196 | 3.075E+04            | 1.088E-08 | 2.463E-06    |
| 2197 | 3.075E+04            | 1.035E-08 | 2.343E-06    |
| 2198 | 3.075E+04            | 9.841E-09 | 2.229E-06    |
| 2199 | 3.075E+04            | 9.361E-09 | 2.120E-06    |
| 2200 | 3.075E+04            | 8.905E-09 | 2.017E-06    |
| 2201 | 3.075E+04            | 8.471E-09 | 1.918E-06    |
| 2202 | 3.075E+04            | 8.057E-09 | 1.825E-06    |



## Appendix E SCREEN3 Model Runs

SCREEN3 Model for Parcel 1.

Strata 1.OUT

02/17/04  
11:31:46

\*\*\* SCREEN3 MODEL RUN \*\*\*  
\*\*\* VERSION DATED 96043 \*\*\*

Bush Valley Strata 1

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = AREA  
EMISSION RATE (G/(S-M\*\*2)) = 0.217450E-04  
SOURCE HEIGHT (M) = 0.0000  
LENGTH OF LARGER SIDE (M) = 274.3200  
LENGTH OF SMALLER SIDE (M) = 167.6400  
RECEPTOR HEIGHT (M) = 0.0000  
URBAN/RURAL OPTION = RURAL

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.  
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX = 0.000 M\*\*4/S\*\*3; MOM. FLUX = 0.000 M\*\*4/S\*\*2.

\*\*\* FULL METEOROLOGY \*\*\*

\*\*\*\*\*  
\*\*\* SCREEN AUTOMATED DISTANCES \*\*\*  
\*\*\*\*\*

\*\*\* TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES \*\*\*

| DIST<br>(M) | CONC<br>(UG/M**3) | STAB | U10M<br>(M/S) | USTK<br>(M/S) | MIX HT<br>(M) | PLUME<br>HT (M) | MAX DIR<br>(DEG) |
|-------------|-------------------|------|---------------|---------------|---------------|-----------------|------------------|
| 1.          | 2678.             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 30.              |
| 100.        | 3079.             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 29.              |
| 200.        | 1675.             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 31.              |
| 300.        | 1019.             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 30.              |
| 400.        | 769.8             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 28.              |
| 500.        | 626.0             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 27.              |
| 600.        | 529.7             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 26.              |
| 700.        | 461.5             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 24.              |
| 800.        | 411.1             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 22.              |
| 900.        | 372.5             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 20.              |
| 1000.       | 341.3             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 17.              |
| 1100.       | 315.4             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 14.              |
| 1200.       | 293.6             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 8.               |
| 1300.       | 274.6             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1400.       | 257.2             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1500.       | 241.2             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1600.       | 226.6             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1700.       | 213.1             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1800.       | 200.8             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1900.       | 189.4             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2000.       | 179.1             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2100.       | 169.9             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2200.       | 161.5             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 1.               |
| 2300.       | 153.8             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2400.       | 146.6             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2500.       | 139.9             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2600.       | 133.7             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2700.       | 127.9             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 1.               |
| 2800.       | 122.4             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |

Page 1

continued

SCREEN3 Model for Parcel 1 (concluded).

| Strata 1.OUT |       |   |     |     |         |      |
|--------------|-------|---|-----|-----|---------|------|
| 2900.        | 117.4 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 3000.        | 112.7 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 3500.        | 94.01 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 4000.        | 79.97 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 4500.        | 69.09 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 5000.        | 60.51 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 5500.        | 53.57 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 6000.        | 47.91 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 6500.        | 43.16 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 7000.        | 39.21 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 7500.        | 35.96 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 8000.        | 33.12 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 8500.        | 30.65 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 9000.        | 28.50 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 9500.        | 26.60 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 10000.       | 24.92 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 15000.       | 14.81 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 20000.       | 10.48 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 25000.       | 8.014 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 30000.       | 6.440 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 40000.       | 4.633 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |
| 50000.       | 3.589 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 |

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:  
 160. 3270. 6 1.0 1.0 10000.0 0.00 30.

\*\*\*\*\*  
 \*\*\* SUMMARY OF SCREEN MODEL RESULTS \*\*\*  
 \*\*\*\*\*

| CALCULATION<br>PROCEDURE | MAX CONC<br>(UG/M**3) | DIST TO<br>MAX (M) | TERRAIN<br>HT (M) |
|--------------------------|-----------------------|--------------------|-------------------|
| -----<br>SIMPLE TERRAIN  | -----<br>3270.        | -----<br>160.      | -----<br>0.       |

SCREEN3 Model for Parcel 2.

Strata 2.OUT

02/17/04  
15:34:25

\*\*\* SCREEN3 MODEL RUN \*\*\*  
\*\*\* VERSION DATED 96043 \*\*\*

Bush Valley Strata 2

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = AREA  
EMISSION RATE (G/(S-M\*\*2)) = 0.368000E-04  
SOURCE HEIGHT (M) = 0.0000  
LENGTH OF LARGER SIDE (M) = 198.1200  
LENGTH OF SMALLER SIDE (M) = 137.1600  
RECEPTOR HEIGHT (M) = 0.0000  
URBAN/RURAL OPTION = RURAL

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.  
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX = 0.000 M\*\*4/S\*\*3; MOM. FLUX = 0.000 M\*\*4/S\*\*2.

\*\*\* FULL METEOROLOGY \*\*\*

\*\*\*\*\*  
\*\*\* SCREEN AUTOMATED DISTANCES \*\*\*  
\*\*\*\*\*

\*\*\* TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES \*\*\*

| DIST (M) | CONC (UG/M**3) | STAB | U10M (M/S) | USTK (M/S) | MIX HT (M) | PLUME HT (M) | MAX DIR (DEG) |
|----------|----------------|------|------------|------------|------------|--------------|---------------|
| 1.       | 4134.          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 33.           |
| 100.     | 4954.          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 33.           |
| 200.     | 1842.          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 34.           |
| 300.     | 1219.          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 32.           |
| 400.     | 932.8          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 31.           |
| 500.     | 758.5          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 29.           |
| 600.     | 639.5          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 28.           |
| 700.     | 553.9          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 26.           |
| 800.     | 490.9          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 23.           |
| 900.     | 441.9          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 20.           |
| 1000.    | 401.5          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 17.           |
| 1100.    | 368.2          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 10.           |
| 1200.    | 339.7          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 1300.    | 314.2          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 2.            |
| 1400.    | 291.3          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 1500.    | 270.6          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 2.            |
| 1600.    | 251.9          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 1700.    | 235.1          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 1800.    | 219.8          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 1.            |
| 1900.    | 205.9          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 2000.    | 193.5          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 2100.    | 182.6          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 2200.    | 172.8          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 1.            |
| 2300.    | 163.8          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 1.            |
| 2400.    | 155.6          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 2500.    | 147.9          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 2600.    | 140.8          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 1.            |
| 2700.    | 134.3          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 2800.    | 128.3          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |

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continued

SCREEN3 Model for Parcel 2 (concluded).

| Strata 2.OUT |       |   |     |     |         |      |    |
|--------------|-------|---|-----|-----|---------|------|----|
| 2900.        | 122.6 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 3000.        | 117.4 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 3500.        | 97.04 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 4000.        | 82.05 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 4500.        | 70.57 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 5000.        | 61.57 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 5500.        | 54.37 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 6000.        | 48.56 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 6500.        | 43.65 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 7000.        | 39.57 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 7500.        | 36.23 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 8000.        | 33.37 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 8500.        | 30.88 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 9000.        | 28.68 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 9500.        | 26.75 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 10000.       | 25.04 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 15000.       | 14.85 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 20000.       | 10.49 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 25000.       | 8.024 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 30000.       | 6.447 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1. |
| 40000.       | 4.633 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 50000.       | 3.589 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:  
 120. 5082. 6 1.0 1.0 10000.0 0.00 33.

\*\*\*\*\*  
 \*\*\* SUMMARY OF SCREEN MODEL RESULTS \*\*\*  
 \*\*\*\*\*

| CALCULATION<br>PROCEDURE | MAX CONC<br>(UG/M**3) | DIST TO<br>MAX (M) | TERRAIN<br>HT (M) |
|--------------------------|-----------------------|--------------------|-------------------|
| SIMPLE TERRAIN           | 5082.                 | 120.               | 0.                |



SCREEN3 Model for Parcel 3.

Strata 3.OUT

02/17/04  
15:44:58

\*\*\* SCREEN3 MODEL RUN \*\*\*  
\*\*\* VERSION DATED 96043 \*\*\*

Bush Valley Strata 3

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = AREA  
EMISSION RATE (G/(S-M\*\*2)) = 0.405420E-04  
SOURCE HEIGHT (M) = 0.0000  
LENGTH OF LARGER SIDE (M) = 179.8320  
LENGTH OF SMALLER SIDE (M) = 137.1600  
RECEPTOR HEIGHT (M) = 0.0000  
URBAN/RURAL OPTION = RURAL

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.  
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX = 0.000 M\*\*4/S\*\*3; MOM. FLUX = 0.000 M\*\*4/S\*\*2.

\*\*\* FULL METEOROLOGY \*\*\*

\*\*\*\*\*  
\*\*\* SCREEN AUTOMATED DISTANCES \*\*\*  
\*\*\*\*\*

\*\*\* TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES \*\*\*

| DIST (M) | CONC (UG/M**3) | STAB | U10M (M/S) | USTK (M/S) | MIX HT (M) | PLUME HT (M) | MAX DIR (DEG) |
|----------|----------------|------|------------|------------|------------|--------------|---------------|
| 1.       | 4462.          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 36.           |
| 100.     | 5402.          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 36.           |
| 200.     | 1868.          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 36.           |
| 300.     | 1246.          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 35.           |
| 400.     | 953.5          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 34.           |
| 500.     | 774.4          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 33.           |
| 600.     | 651.4          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 32.           |
| 700.     | 562.8          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 30.           |
| 800.     | 497.6          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 28.           |
| 900.     | 446.5          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 25.           |
| 1000.    | 404.5          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 23.           |
| 1100.    | 369.8          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 20.           |
| 1200.    | 340.2          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 15.           |
| 1300.    | 314.2          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 11.           |
| 1400.    | 291.3          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 2.            |
| 1500.    | 270.6          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 2.            |
| 1600.    | 251.9          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 1.            |
| 1700.    | 235.0          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 1800.    | 219.7          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 1.            |
| 1900.    | 205.9          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 2000.    | 193.5          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 2100.    | 182.6          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 2200.    | 172.8          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 1.            |
| 2300.    | 163.8          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 1.            |
| 2400.    | 155.5          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 2500.    | 147.9          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 2600.    | 140.8          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 1.            |
| 2700.    | 134.3          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |
| 2800.    | 128.2          | 6    | 1.0        | 1.0        | 10000.0    | 0.00         | 0.            |

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continued

SCREEN3 Model for Parcel 3 (concluded).

| Strata 3.OUT                                  |       |   |     |     |         |      |     |
|---|-------|---|-----|-----|---------|------|-----|
| 2900.   | 122.6 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 3000.   | 117.4 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 3500.   | 97.03 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 4000.   | 82.04 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 4500.   | 70.57 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 5000.   | 61.57 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 5500.   | 54.37 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 6000.   | 48.55 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0.  |
| 6500.   | 43.65 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 7000.   | 39.57 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0.  |
| 7500.   | 36.23 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 8000.   | 33.37 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 8500.   | 30.88 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 9000.   | 28.68 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 9500.   | 26.75 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 10000.  | 25.04 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 15000.  | 14.85 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 20000.  | 10.49 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 25000.  | 8.024 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 30000.  | 6.447 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 40000.  | 4.633 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| 50000.  | 3.589 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 1.  |
| MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M: |       |   |     |     |         |      |     |
| 113.  | 5497. | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 36. |

\*\*\*\*\*  
 \*\*\* SUMMARY OF SCREEN MODEL RESULTS \*\*\*  
 \*\*\*\*\*

| CALCULATION<br>PROCEDURE | MAX CONC<br>(UG/M**3) | DIST TO<br>MAX (M) | TERRAIN<br>HT (M) |
|--------------------------|-----------------------|--------------------|-------------------|
| SIMPLE TERRAIN           | 5497.                 | 113.               | 0.                |

SCREEN3 Model for Parcel 4.

Strata 4.OUT

02/17/04  
16:06:15

\*\*\* SCREEN3 MODEL RUN \*\*\*  
\*\*\* VERSION DATED 96043 \*\*\*

Bush Valley Strata 4

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = AREA  
EMISSION RATE (G/(S-M\*\*2)) = 0.717590E-04  
SOURCE HEIGHT (M) = 0.0000  
LENGTH OF LARGER SIDE (M) = 152.4000  
LENGTH OF SMALLER SIDE (M) = 91.4400  
RECEPTOR HEIGHT (M) = 0.0000  
URBAN/RURAL OPTION = RURAL

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.  
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX = 0.000 M\*\*4/S\*\*3; MOM. FLUX = 0.000 M\*\*4/S\*\*2.

\*\*\* FULL METEOROLOGY \*\*\*

\*\*\*\*\*  
\*\*\* SCREEN AUTOMATED DISTANCES \*\*\*  
\*\*\*\*\*

\*\*\* TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES \*\*\*

| DIST<br>(M) | CONC<br>(UG/M**3) | STAB | U10M<br>(M/S) | USTK<br>(M/S) | MIX HT<br>(M) | PLUME<br>HT (M) | MAX DIR<br>(DEG) |
|-------------|-------------------|------|---------------|---------------|---------------|-----------------|------------------|
| 1.          | 7305.             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 29.              |
| 100.        | 5935.             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 31.              |
| 200.        | 2465.             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 28.              |
| 300.        | 1679.             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 25.              |
| 400.        | 1287.             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 22.              |
| 500.        | 1044.             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 17.              |
| 600.        | 876.3             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 10.              |
| 700.        | 753.0             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 800.        | 658.4             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 900.        | 580.7             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1000.       | 515.7             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1100.       | 462.1             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1200.       | 416.6             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1300.       | 377.4             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1400.       | 343.6             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 1.               |
| 1500.       | 314.2             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1600.       | 288.5             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1700.       | 265.9             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1800.       | 246.1             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 1900.       | 228.4             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2000.       | 212.9             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2100.       | 199.5             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2200.       | 187.5             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2300.       | 176.8             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2400.       | 167.1             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2500.       | 158.1             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2600.       | 149.9             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2700.       | 142.3             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |
| 2800.       | 135.5             | 6    | 1.0           | 1.0           | 10000.0       | 0.00            | 0.               |

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continued

SCREEN3 Model for Parcel 4 (concluded).

| Strata 4.OUT |       |   |     |     |         |      |    |
|--------------|-------|---|-----|-----|---------|------|----|
| 2900.        | 129.1 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 3000.        | 123.4 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 3500.        | 100.8 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 4000.        | 84.54 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 4500.        | 72.26 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 5000.        | 62.81 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 5500.        | 55.31 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 6000.        | 49.20 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 6500.        | 44.18 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 7000.        | 40.01 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 7500.        | 36.60 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 8000.        | 33.68 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 8500.        | 31.14 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 9000.        | 28.90 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 9500.        | 26.94 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 10000.       | 25.20 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 15000.       | 14.88 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 20000.       | 10.51 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 25000.       | 8.030 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 30000.       | 6.447 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 40000.       | 4.633 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |
| 50000.       | 3.589 | 6 | 1.0 | 1.0 | 10000.0 | 0.00 | 0. |

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:  
 89. 9066. 6 1.0 1.0 10000.0 0.00 29.

\*\*\*\*\*  
 \*\*\* SUMMARY OF SCREEN MODEL RESULTS \*\*\*  
 \*\*\*\*\*

| CALCULATION<br>PROCEDURE | MAX CONC<br>(UG/M**3) | DIST TO<br>MAX (M) | TERRAIN<br>HT (M) |
|--------------------------|-----------------------|--------------------|-------------------|
| SIMPLE TERRAIN           | 9066.                 | 89.                | 0.                |