LA-UR-08-4761
July 2008
EP2008-0394

Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area L, Solid Waste Management Unit 54-006, at Technical Area 54, for Second Quarter Fiscal Year 2008

Los Alamos
NATIONAL LABORATORY
EST.1943

Prepared by the Environmental Programs Directorate

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EXECUTIVE SUMMARY

This periodic monitoring report summarizes field-screening and sampling activities conducted during the second quarter of fiscal year 2008 at Material Disposal Area (MDA) L, Solid Waste Management Unit 54-006, in Technical Area 54 at Los Alamos National Laboratory. The objective of the monitoring is to evaluate concentration trends in volatile organic compounds (VOCs) in subsurface vapor at MDA L over time and over their distances from known VOC source areas.

Validated analytical results and field monitoring confirmed the presence of two VOC source areas. VOC concentrations in each source area decreased from the base of the shafts and pit (where organic chemicals had been disposed of) to borehole total depth (TD). The borehole TDs ranged from 80 ft in angled borehole 54-02021 to 608 ft in open borehole 54-24399. Pore-gas results showed no immediate threat to groundwater from the VOC plume but do indicate the need for continued monitoring of pore gas.

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1.0 INTRODUCTION

Material Disposal Area (MDA) L (Solid Waste Management Unit [SWMU] 54-006) is located in the east-central portion of Los Alamos National Laboratory (LANL or the Laboratory) on Mesita del Buey (Figure 1.0-1), within an 1100-ft × 3000-ft (2.5-acre) fenced area known as Area L. The MDA L corrective action unit consists of 1 inactive subsurface disposal pit (Pit A), 1 inactive subsurface treatment and disposal impoundment (Impoundment C), and 12 inactive disposal shafts (Shafts 2–12 and 18). Also in Area L, the Area L Landfill consists of 2 inactive surface impoundments (B and D) and 22 inactive disposal shafts (Shafts 1, 13–17, and 19–34). The Area L Landfill units received hazardous wastes after the effective date of Resource Conservation and Recovery Act (RCRA) and are hazardous waste disposal units subject to RCRA closure requirements rather than Compliance Order on Consent (the Consent Order) requirements. Because the MDA L corrective action units and Area L Landfill units are collocated and received similar wastes, they are being investigated and monitored collectively. Shafts 36 and 37 are former lead-stringer shafts at Area L that are also undergoing RCRA closure and are not part of SWMU 54-006. The former lead-stringer shafts did not receive any wastes containing VOCs. Information on radioactive materials and radionuclides, including the results of sampling and analysis of radioactive constituents, is voluntarily provided to the New Mexico Environment Department (NMED) in accordance with U.S. Department of Energy (DOE) policy.

Area L is relatively flat, and most of the surface overlying MDA L is paved with asphalt-to-house ongoing waste management activities, including the storage of chemical, hazardous, and mixed low-level wastes managed within container-storage units. During the late 1950s, the Laboratory, with the approval of the U.S. Atomic Energy Commission and upon recommendation of the U.S. Geological Survey, selected Mesita del Buey within Technical Area 54 (TA-54) for underground disposal of Laboratory-generated waste (Rogers 1977, 005707; Rogers 1977, 005708, p. G-1). Since then, the main waste storage and disposal facilities for the Laboratory have been located at TA-54. MDA L is one of four inactive disposal areas on Mesita del Buey, which is bounded by Pajarito Canyon to the south and Cañada del Buey to the north.

MDA L was used for disposal of nonradiological liquid chemical waste, including containerized and uncontainerized liquid wastes, bulk quantities of treated aqueous waste, batch-treated salt solutions, electroplating wastes (including precipitated heavy metals), and small-batch quantities of treated lithium hydride. MDA L operated from the early 1960s to 1985, when it was decommissioned (i.e., removed from service).

One pit, 3 impoundments, and 34 shafts were excavated into the overlying soil and unit 2 of the Tshirege Member of the Bandelier Tuff at MDA L. The site features are shown in Figure 1.0-2. The depth of the subsurface disposal units ranges from 10 to 65 ft below the original ground surface. The depth of the regional aquifer is estimated to be approximately 930 ft below ground surface (bgs), based on data from other wells at the Laboratory and the predictions of the hydrogeologic conceptual model for the Pajarito Plateau (LANL 1998, 059599). The pit, impoundments, and shafts were unlined. The bottoms of the pit and impoundments were level, so liquid could spread over the entire surface area to facilitate evaporation. After they were decommissioned, the pit and impoundments were filled and covered with clean, crushed consolidated tuff. The bottom of each shaft was covered with 3 ft of crushed tuff to seal cracks and joints, and a steel cap was placed over the opening. When the shafts were filled within approximately 3 ft of the surface, they were capped with a 3-ft concrete plug (LANL 1992, 007669, p. 5-108).

Because sampling methods and resulting data quality have changed substantially over the years, pore-gas data collected before 1996 were used only semiquantitatively in the MDA L investigation work plan

(LANL 2004, 087624). Data collected from 1997 to the present have been subjected to rigorous quality assurance/quality control (QA/QC) procedures. The pore-gas monitoring data for MDA L indicated that 1,1,1-trichloroethane (TCA) is the predominant volatile organic compound (VOC) detected, followed by trichloroethene (TCE). The VOCs are the primary chemicals of potential concern (COPCs) in the subsurface at MDA L.

In 1994 and 1995, two deep-angled boreholes, designated as 54-01015 and 54-01016, were drilled from the adjacent canyon slope northeast of MDA L within Cañada del Buey to investigate the possible presence of vapor-phase contaminants at depth beneath MDA L (Figure 1.0-2). These boreholes were drilled to depths of 530 ft and 600 ft bgs, respectively, beneath MDA L by air-rotary installation of 8-in.-diameter STRATEX casing to the bottom of each borehole. Borehole 54-01015 was drilled to intersect the region below the closed disposal shafts located in the western part of MDA L. Borehole 54-01016 was drilled to intersect the region below the closed pit, impoundments, and shafts located in the eastern part of MDA L. The boreholes were selectively cored for approximately 10 ft within every 40-ft interval below a depth of 260 ft bgs. From discontinuous core, 22 samples were collected and analyzed at an off-site contract laboratory for VOCs and tritium. After the installation of Solinst multiport vapor- and lysimeter-coupled systems in each borehole, the STRATEX casing was withdrawn while annular well completion materials were emplaced to complete the borehole for vapor monitoring. Both boreholes are maintained as vapor-monitoring wells.

Results of geologic logging were recorded in the borehole logs. Saturation was not encountered in any of the Phase I RCRA facility investigation (RFI) boreholes at MDA L; however, moist cuttings and core were observed in RFI boreholes 54-01015 and 54-01016. Borehole logs document moist to wet cuttings and core at depths of 343 ft bgs (Puye Formation paleosol), 449 ft bgs (basalt), and 475 ft bgs (basalt) in borehole 54-01015. Similarly, the borehole log for borehole 54-01016 shows moist cuttings and core at a depth of 219 ft bgs (Cerro Toledo interval) and at multiple depths within the basalt (312, 370, 371, 397, 459, 479, 497, and 510 ft bgs) beneath MDA L. Lysimeters were installed to collect both pore vapor and water where moist to wet conditions were found at two depths (308.3 and 461.4 ft bgs) in borehole 54-01015 and at four depths (162.3, 274.7, 414.3, and 517.6 ft bgs) in borehole 54-01016. In April 1996, initial attempts to collect water samples during pore-gas monitoring yielded approximately 0.5 to 1 mL for the samples from borehole 54-01015 and no water for the samples from borehole 54-01016 (Lowry 1996, 081612). During quarterly pore-gas monitoring conducted from 1996 to 2005, the ports in target zones of potential perched water were sampled for pore gas and water; however, no water was recovered during this period.

Analyses of the pore-gas monitoring data indicate that a subsurface vapor-phase VOC plume is present. The plume has two unique sources, identified as shaft fields 1 through 28, referred to as the western source area, and shaft fields 29 through 34, referred to as the eastern source area. The dominant VOC in the plume is TCA.

Since 1985, pore-gas monitoring has been required at MDA L. A summary of monitoring at MDA L follows.

- In 1985, the Laboratory received a Compliance Order from NMED stipulating, among other requirements, characterization of pore gas at Areas G and L. The Laboratory installed seven vapor-monitoring wells to characterize pore gas.
- From 1986 to 1990, the Laboratory voluntarily installed 22 additional vapor-monitoring wells to characterize the VOC plumes at Areas G and L.

- In 1990, the U.S. Environmental Protection Agency (EPA) issued Module VIII of the Laboratory's Hazardous Waste Facility Permit. Module VIII included requirements for quarterly pore-gas sampling at MDAs G and L as input into the RFI.
- In 2005, the Consent Order required pore-gas monitoring during the site investigations for all MDAs and required the submittal of a long-term pore-gas monitoring plan for each MDA. Section XI.D of the Consent Order requires the reporting of periodic pore-gas monitoring data in a quarterly periodic monitoring report.
- In September 2005, the Laboratory submitted a proposed long-term monitoring plan for pore gas in Appendix I of the MDA L investigation report (LANL 2005, 092591).
- During June and July 2006, a soil-vapor extraction pilot study was conducted at MDA L. An estimated 800 lb of VOCs was removed from the eastern and western source areas (LANL 2006, 094152).
- During February and March 2007, three boreholes were drilled to contact with basalt at Area L, core from each borehole was analyzed, and the boreholes were constructed as vapor-monitoring wells to characterize the VOC plume.
- On July 12, 2007, NMED approved the MDA L investigation report and required the Laboratory to produce an interim vapor-monitoring plan (LANL 2007, 098712; NMED 2007, 098409).
- On August 29, 2007, the Laboratory submitted the "Interim Subsurface Vapor-Monitoring Plan for Material Disposal Area L at Technical Area 54" (LANL 2007, 098712) to NMED.
- On September 25, 2007, NMED issued a notice of disapproval for the interim vapor-monitoring plan (NMED 2007, 098559).
- On October 30, 2007, the Laboratory submitted the "Interim Subsurface Vapor-Monitoring Plan for Material Disposal Area L at Technical Area 54, Revision 1" (hereafter, the interim vapor-monitoring plan) (LANL 2007, 099372), which identified monitoring and sampling requirements.
- On November 8, 2007, NMED approved with modifications the revised interim vapor-monitoring plan (NMED 2007, 098999) and identified sampling requirements in addition to those proposed in the October 30, 2007, the interim vapor-monitoring plan (LANL 2007, 099372).

Subsurface vapor field screening and sampling are being performed by personnel from the Laboratory's Environmental Programs–Waste and Environmental Services Division to characterize trends of VOCs in subsurface vapor. Analytical laboratory results and monitoring data for the second quarter of fiscal year (FY) 2008 are presented in this report. The monitoring locations at SWMU 54-006 associated with MDA L are shown in Figure 1.0-2.

2.0 SCOPE OF ACTIVITIES

The sampling program was implemented consistent with sampling presented in the approval with modifications to the October 2007 "Interim Subsurface Vapor-Monitoring Plan for Material Disposal Area L at Technical Area 54, Revision 1," (LANL 2007, 099372), received November 8, 2007. Sampling at 24 locations, at 80 port depths for VOCs, and 83 port depths for tritium, was completed.

During the second quarter of FY2008, borehole field screening and sampling were conducted from March 21 to April 10, 2008. The field screening and samples collected at MDA L during the second quarter of FY2008 are presented in Table 2.0-1.

- Each interval was purged to ensure that formation air was being sampled in accordance with Standard Operating Procedure (SOP) 06.31, "Sampling of Subatmospheric Air."
- Pore gas from each accessible instrumented interval was field screened for VOCs using a Brüel and Kjær (B&K) Type 1302 multigas photoacoustic analyzer and field screened for carbon dioxide using a Landtec GEM-500.
- Vapor samples were collected from selected intervals in SUMMA canisters for laboratory analyses of VOCs using EPA Method TO-15.
- Tritium samples were collected with tritium columns for laboratory analysis using EPA Method 906.0.
- A total of 142 ports at 24 boreholes were field screened for VOCs.
- A total of 80 ports at 24 boreholes were sampled for VOCs.
- A total of 83 ports at 23 boreholes were sampled for tritium.

No investigation-derived waste was generated during quarterly monitoring activities.

3.0 REGULATORY CRITERIA

The Consent Order does not identify any cleanup standards, risk-based screening levels, risk-based cleanup goals, or other regulatory criteria for pore gas at MDA L. Therefore, an analysis was conducted to evaluate the potential for contamination of groundwater by VOCs in pore gas using groundwater cleanup levels provided in the Consent Order. The analysis evaluated the water concentration that would be in equilibrium with the maximum concentrations of VOCs detected at MDA L during the most recent round of monitoring.

If the predicted concentration of a particular VOC in groundwater was less than the groundwater cleanup level, then the groundwater cleanup levels would not be exceeded. The screening-level analysis for MDA L is discussed in section 5.0.

4.0 FIELD-SCREENING SUMMARY

Field screening at accessible instrumented ports during second quarter of FY2008 was conducted with a B&K Type 1302 multigas photoacoustic analyzer. The B&K is calibrated for analysis of four organic chemicals: trichlorofluoromethane (Freon-11), tetrachloroethene (PCE), TCA, and TCE. The field-screening results will be presented in the annual "Periodic Monitoring Report for Vapor-Sampling Activities Conducted at Technical Area 54, Material Disposal Area L, for Fiscal Year 2008."

5.0 ANALYTICAL DATA RESULTS

Validated analytical results for VOCs in pore gas are produced from laboratory analyses of vapor collected in SUMMA canisters and analyzed for VOCs using EPA Method TO-15. Validated analytical results for tritium are produced from laboratory analysis of subsurface vapor collected in tritium columns

and analyzed for tritium using EPA Method 906.0. During second quarter FY2008, subsurface vapor sampling was conducted from March 21 to April 10, 2008, at MDA L.

VOC analytical data from the second quarter FY2008 sampling event are presented in Table 5.0-1. Table 5.0-1 also presents FY2007 results and first quarter FY2008 results. Data from FY2007 are the result of one annual sampling event conducted in FY2007. Tritium analytical data from FY2007 and first and second quarter FY2008 sampling events are presented in Table 5.0-2.

5.1 Summary of Pore-Gas VOC Results

Twenty-one VOCs were detected at least once in vapor samples collected from MDA L. TCA was the organic chemical detected with the greatest concentration, 3,500,000 µg/m^3, in borehole 54-27642 at 27.5 to 32.5 ft bgs during second quarter FY2008. Tritium was detected in 51 of the 83 samples analyzed, and their concentrations ranged from 67.0 to 64,727 pCi/L.

5.2 Pore-Gas VOC Concentrations with Sampling Depth from Surface

Concentrations of VOCs detected in pore gas using EPA Method TO-15 generally reached maximum concentration between 65 and 120 ft bgs near the depths of the base of the shafts and pit then decreased to borehole TD. Table 2.0-1 presents boreholes with samples collected in SUMMA canisters at multiple depths during second quarter FY2008, and the analytical data from these samples are presented in Table 5.0-1. The deepest geologic unit monitored is the Otowi Member (Qbo), which was monitored at four locations (54-24399, 54-27641, 54-27642, and 54-27643). The minimum detected concentrations of all VOCs were in the samples collected from the Qbo interval.

5.3 Contaminant Partitioning Overview

Under moist soil conditions and where no nonaqueous phase liquid is present, contaminant partitioning in the vadose zone can be described by the following equation (Suthersan 1997, 093755):

$$C_T = P_b C_{Soil} + w C_{water} + \alpha C_{air} \qquad \textbf{Equation 5-1}$$

where C_T = total quantity of contaminant per unit soil volume (µg/m^3),
C_{Soil} = adsorbed chemical concentration (µg/kg),
C_{water} = dissolved chemical concentration (µg/L),
C_{air} = vapor concentration (µg/m^3),
P_b = soil bulk density (kg/m^3),
w = volumetric water content (L/m^3), and
α = volumetric air content – w (volumetric water content) (m$^3_{air}$/m$^3_{soil}$).

The equilibrium relationship between vapor concentration and the associated pore-water concentration is given by Henry's law:

$$C_{air} = H' \cdot C_{water} \qquad \textbf{Equation 5-2}$$

Where C_{air} is the volumetric concentration of contaminant in air, C_{water} is the volumetric concentration of contaminant in water, and H' is the dimensionless Henry's law constant.

The relationship between equilibrium dissolved concentration and adsorbed concentration is given by

$$C_{Soil} = K_d \cdot C_{water} \quad \textbf{Equation 5-3}$$

where C_{Soil} = adsorbed chemical concentration (µg/kg),
C_{water} = dissolved chemical concentration (µg/L), and
K_d = adsorption coefficient (L/kg).

where $K_d = f_{oc} \cdot K_{oc}$ and **Equation 5-4**
f_{oc} = percentage of fraction of organic carbon in soils (mg/mg), and
K_{oc} = organic carbon partitioning coefficient (L/kg).

Environmental laboratory analyses of solids and soils are reported on a dry-weight basis. As a result, calculated volumetric concentrations of C_T that include soils and tuff must be divided by the dry bulk density to match the "dry weight" reporting basis of laboratory results.

5.4 VOC Vapor-Phase Partitioning to Water

VOC results were screened to evaluate whether concentrations of VOCs in the plume would be of concern as a potential source of groundwater contamination. Because no screening levels exist for pore gas that address the potential for groundwater contamination, the screening evaluation was based on groundwater cleanup levels contained in the Consent Order and on Henry's law constants that describe the equilibrium relationship between vapor and water concentrations. The source of the Henry's law constants was the NMED soil-screening level technical background document (NMED 2006, 092513). The following dimensionless form of Henry's law constant was used:

$$H' = \frac{C_{air}}{C_{water}} \quad \textbf{Equation 5-5}$$

where C_{air} is the volumetric concentration of contaminant in air and C_{water} is the volumetric concentration of contaminant in water. Equation 5-2 can be used to calculate the following screening value (SV):

$$SV = \frac{C_{air}}{1{,}000 \times H' \times SL} \quad \textbf{Equation 5-6}$$

where C_{air} is the concentration of VOC in the pore-gas sample (µg/m^3), H' is the dimensionless Henry's law constant, SL is the screening level (µg/L), and 1000 is a conversion factor from L to m^3. The SLs are groundwater cleanup levels specified in the Consent Order. These levels are the EPA maximum contaminant level (MCL) or the New Mexico Water Quality Control Commission (NMWQCC) groundwater standard, whichever is lower. As specified in the Consent Order, if no MCL or NMWQCC standard exists, the EPA Region 6 human health medium-specific SL for tap water is used. The numerator in Equation 5-6 is the actual concentration of VOC in pore gas, and the denominator represents the concentration in pore gas needed to exceed the SL. Therefore, if the SV is less than 1, the concentration of VOC in pore gas will not be sufficiently high to cause the water SL to be exceeded, even if the VOC plume were in contact with groundwater.

Equation 5-6 was used to screen the concentrations of VOCs detected in pore-gas samples from EPA Method TO-15 analyses at MDA L during second quarter FY2008. As shown in Table 5.4-1, 402 detected sample concentrations of 11 VOCs resulted in SVs greater than 1. The SVs of detected

VOCs ranged from 0.0000000792 to 2090. Table 5.4-2 summarizes the 11 VOCs whose SVs are greater than 1, including the maximum SV and the location and depth interval reported with the maximum SV. Maximum concentrations of five VOCs were found at location 54-24238 from 83 to 85 ft bgs. Results with SVs greater than 1 were from six sample ports at five locations. Two of these ports were screened in Qbt2, three in Qbt1v(u), and one in Qbt1g.

6.0 SUMMARY

The purpose of the quarterly field-screening and sampling activities at MDA L was to evaluate concentration trends in VOCs over time and over distance from known VOC source areas. The results from second quarter FY2008 are summarized below.

- The VOC concentration trends at MDA L were consistent with a diffusive plume.
- The VOC concentrations increased from ground surface to the base of the shafts and pit where VOCs were disposed of and then decreased to borehole TD.
- The VOC concentrations in the central portion of each source area were above screening concentrations, based on groundwater cleanup standards.

7.0 REFERENCES AND MAP DATA SOURCES

7.1 References

The following list includes all documents cited in this report. Parenthetical information following each reference provides the author(s), publication date, and ER ID number. This information is also included in text citations. ER ID numbers are assigned by the Environmental Programs Directorate's Records Processing Facility (RPF) and are used to locate the document at the RPF and, where applicable, in the master reference set.

Copies of the master reference set are maintained at the NMED Hazardous Waste Bureau; DOE-Los Alamos Site Office; EPA, Region 6; and the Directorate. The set was developed to ensure that the administrative authority has all material needed to review this document, and it is updated with every document submitted to the administrative authority. Documents previously submitted to the administrative authority are not included.

LANL (Los Alamos National Laboratory), May 1992. "RFI Work Plan for Operable Unit 1148," Los Alamos National Laboratory document LA-UR-92-855, Los Alamos, New Mexico. (LANL 1992, 007669)

LANL (Los Alamos National Laboratory), May 22, 1998. "Hydrogeologic Workplan," Los Alamos National Laboratory document LA-UR-01-6511, Los Alamos, New Mexico. (LANL 1998, 059599)

LANL (Los Alamos National Laboratory), November 2004. "Investigation Work Plan for Material Disposal Area L, Solid Waste Management Unit 54-006 at Technical Area 54, Revision 2," Los Alamos National Laboratory document LA-UR-04-8245, Los Alamos, New Mexico. (LANL 2004, 087624)

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LANL (Los Alamos National Laboratory), October 2007. "Interim Subsurface Vapor-Monitoring Plan for Material Disposal Area L at Technical Area 54, Revision 1," Los Alamos National Laboratory document LA-UR-07-7040, Los Alamos, New Mexico. (LANL 2007, 099372)

Lowry, W.B., May 29, 1996. "[Water Sampling Activity at Wells 54-015 and 54-016 on April 26, 1996]," Science & Engineering Associates, Inc., letter to R. Gilkeson (ERM/Golder) from W.B. Lowry (SEA), Santa Fe, New Mexico. (Lowry 1996, 081612)

NMED (New Mexico Environment Department), June 2006. "Technical Background Document for Development of Soil Screening Levels, Revision 4.0, Volume 1, Tier 1: Soil Screening Guidance Technical Background Document," New Mexico Environment Department, Hazardous Waste Bureau and Ground Water Quality Bureau Voluntary Remediation Program, Santa Fe, New Mexico. (NMED 2006, 092513)

NMED (New Mexico Environment Department), July 18, 2007. "Approval with Direction for the 'Investigation Report for Material Disposal Area L, Solid Waste Management Unit 54-006, at Technical Area 54' and 'Addendum to the Investigation Report for Material Disposal Area L, Solid Waste Management Unit 54-006, at Technical Area 54'," New Mexico Environment Department letter to D. Gregory (DOE LASO) and D. McInroy (LANL) from J.P. Bearzi (NMED-HWB), Santa Fe, New Mexico. (NMED 2007, 098409)

NMED (New Mexico Environment Department), September 25, 2007. "Notice of Disapproval for the Interim Subsurface Vapor-Monitoring Plan for Material Disposal Area (MDA) L, Solid Waste Management Unit 54-006, at Technical Area 54," New Mexico Environment Department letter to D. Gregory (DOE-LASO) and D. McInroy (LANL) from J.P. Bearzi (NMED-HWB), Santa Fe, New Mexico. (NMED 2007, 098559)

NMED (New Mexico Environment Department), November 8, 2007. "Approval with Modifications for the Interim Subsurface Vapor-Monitoring Plan for Material Disposal Area (MDA) L, Solid Waste Management Unit 54-006, at Technical Area 54, Revision 1," New Mexico Environment Department letter to D. Gregory (DOE-LASO) and D. McInroy (LANL) from J.P. Bearzi (NMED-HWB), Santa Fe, New Mexico. (NMED 2007, 098999)

Rogers, M.A., June 1977. "History and Environmental Setting of LASL Near-Surface Land Disposal Facilities for Radioactive Wastes (Areas A, B, C, D, E, F, G, and T)," Vol. I, Los Alamos Scientific Laboratory report LA-6848-MS, Los Alamos, New Mexico. (Rogers 1977, 005707)

Rogers, M.A., June 1977. "History and Environmental Setting of LASL Near-Surface Land Disposal Facilities for Radioactive Wastes (Areas A, B, C, D, E, F, G, and T)," Vol. II, Los Alamos Scientific Laboratory report LA-6848-MS, Los Alamos, New Mexico. (Rogers 1977, 005708)

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7.2 Map Data Sources

Data sources used in original figures created for this report are described below and identified by legend title.

Legend Item	Data Source
Disposal pit/impoundment	Waste Storage Features; Los Alamos National Laboratory, Environment and Remediation Support Services Division, GIS/Geotechnical Services Group, EP2007-0032; 1:2,500 Scale Data; 13 April 2007.
Disposal shaft	Waste Storage Features; Los Alamos National Laboratory, Environment and Remediation Support Services Division, GIS/Geotechnical Services Group, EP2007-0032; 1:2,500 Scale Data; 13 April 2007.
Elevation contour	Hypsography, 10, 20, & 100 Foot Contour Intervals; Los Alamos National Laboratory, ENV Environmental Remediation and Surveillance Program; 1991.
Fence	Security and Industrial Fences and Gates; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 10 September 2007.
LANL boundary	LANL Areas Used and Occupied; Los Alamos National Laboratory, Site Planning & Project Initiation Group, Infrastructure Planning Division; 19 September 2007.
Material disposal area	Materials Disposal Areas; Los Alamos National Laboratory, ENV Environmental Remediation and Surveillance Program; ER2004-0221; 1:2,500 Scale Data; 23 April 2004.
Paved road	Paved Road Arcs; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 10 September 2007.
Structure	Structures; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 10 September 2007.
TA boundary	Technical Area Boundaries; Los Alamos National Laboratory, Site Planning & Project Initiation Group, Infrastructure Planning Division; 19 September 2007.
Unpaved road	Dirt Road Arcs; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 10 September 2007.
Vapor monitoring well	Point Feature Locations of the Environmental Restoration Project Database; Los Alamos National Laboratory, Environment and Remediation Support Services Division, EP2007-0754; 30 November 2007.

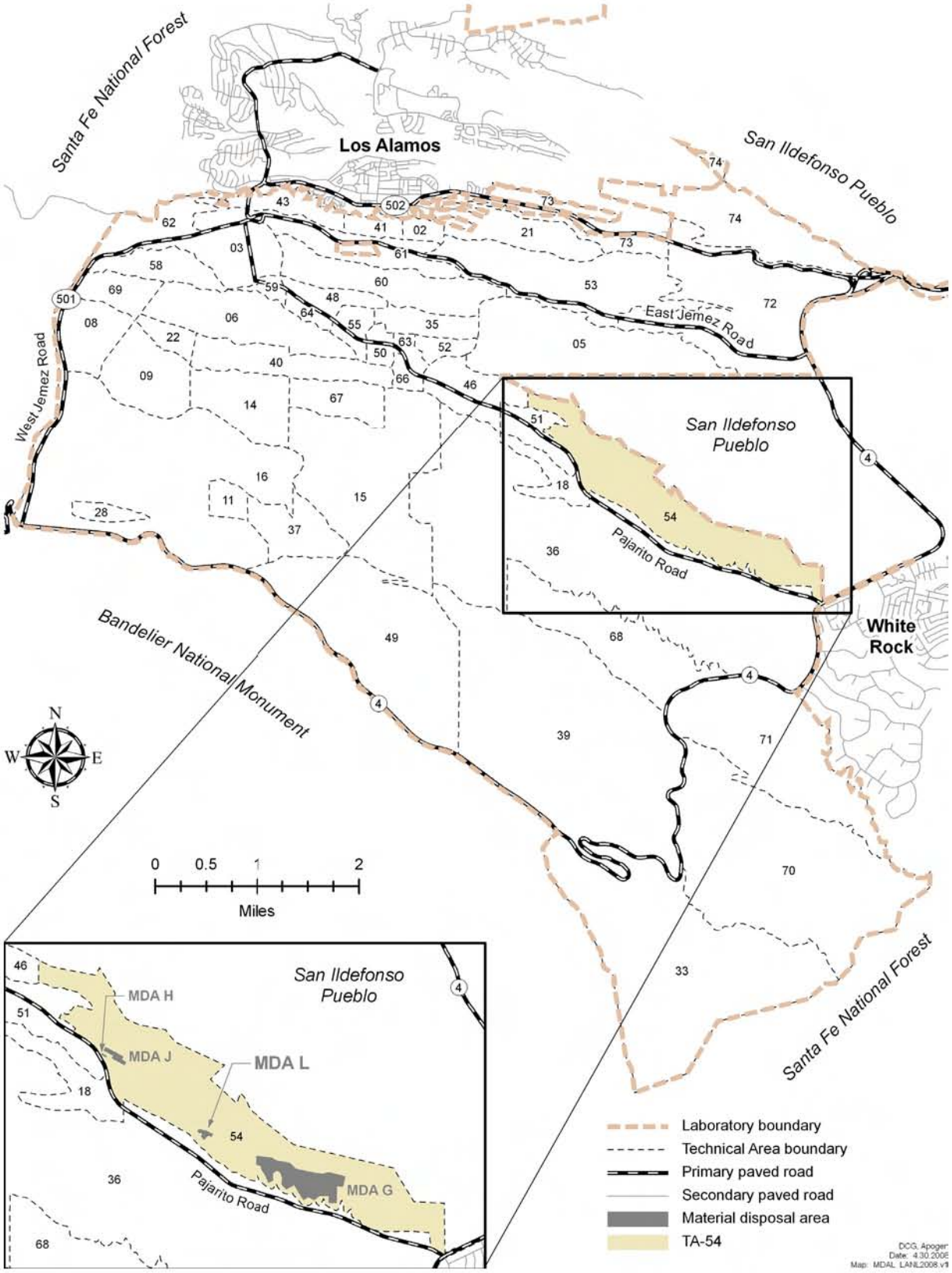

Figure 1.0-1 Location of MDA L in TA-54

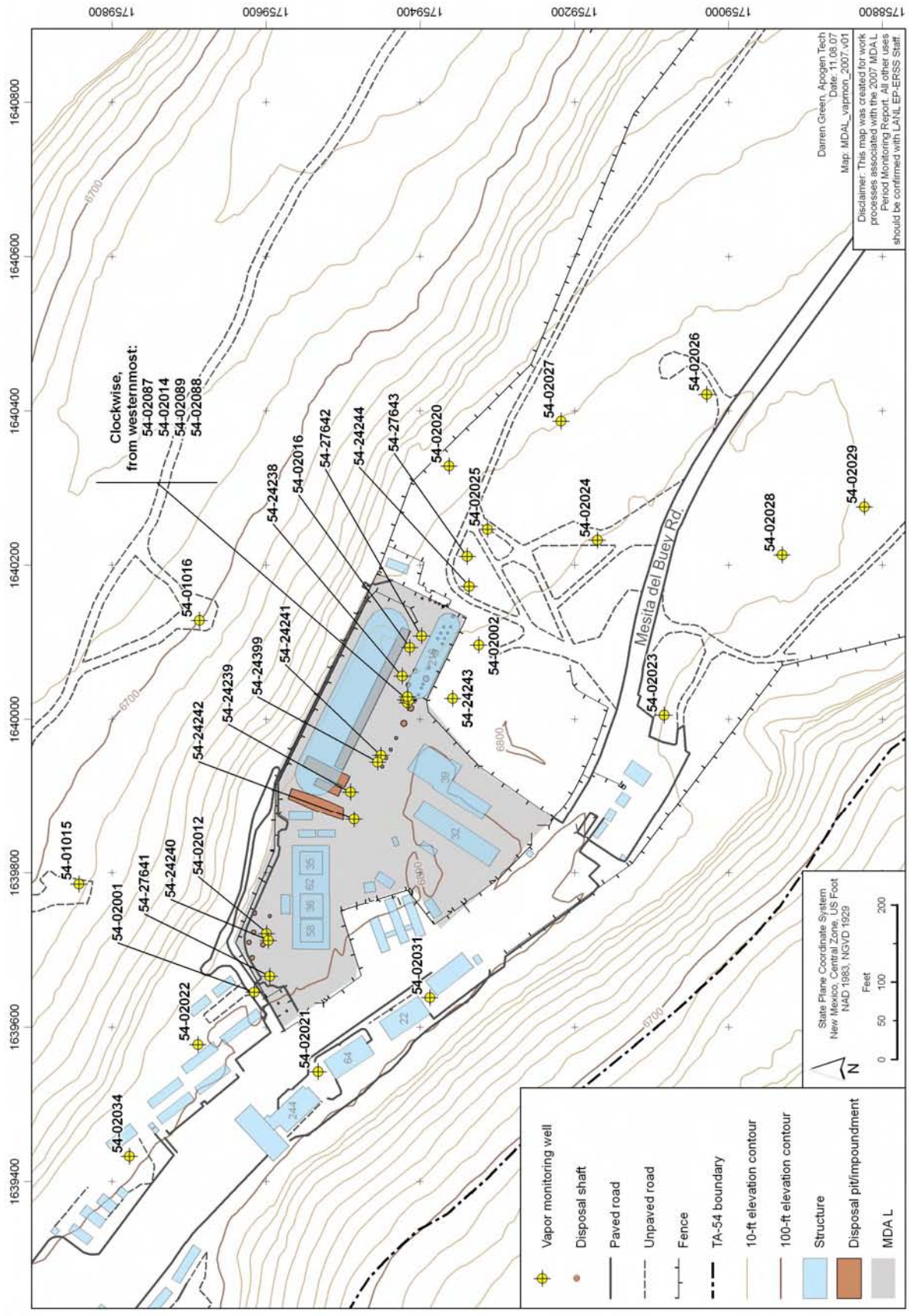

Figure 1.0-2 SWMU 54-006 pore-gas monitoring location

Table 2.0-1
Field Screening and Samples Collected at MDA L Second Quarter FY2008

Location ID	Port Depth (ft)	Geologic Unit	Field Screening	VOC Collection	Tritium Collection
54-02001	20	Qbt2	3/24/2008	NR[a]	NR
54-02001	**40**	**Qbt2**	3/24/2008	3/24/2008	3/26/2008
54-02001	60	Qbt1v(u)[b]	—[c]	NR	NR
54-02001	**80**	**Qbt1v(u)**[d]	3/24/2008	—	—
54-02001	100	Qbt1v(u)	3/24/2008	3/24/2008	3/26/2008
54-02001	**120**	**Qbt1v(c)**[e]	3/24/2008	3/24/2008	—
54-02001	**140**	**Qbt1g**[f]	3/24/2008	—	3/26/2008
54-02001	160	Qbt1g	3/24/2008	NR	NR
54-02001	180	Qbt1g[b]	—	NR	NR
54-02001	200	Qbt1g	3/24/2008	3/25/2008	3/26/2008
54-02002	20	Qbt2[b]	—	NR	NR
54-02002	**40**	**Qbt2**[g]	—	—	4/24/2008
54-02002	60	Qbt1v(u)	4/7/2008	4/7/2008	NR
54-02002	80	Qbt1v(u)[b]	—	NR	NR
54-02002	**100**	**Qbt1v(u)**	4/7/2008	4/7/2008	4/24/2008
54-02002	**120**	**Qbt1(c)**	4/7/2008	4/7/2008	4/24/2008
54-02002	140	Qbt1g	4/7/2008	NR	NR
54-02002	157	Qbt1g	4/7/2008	NR	NR
54-02002	**180**	**Qbt1g**[f]	4/7/2008	—	—
54-02002	200	Qbt1g	4/7/2008	4/7/2008	4/24/2008
54-02016	18	Qbt2[b]	—	NR	NR
54-02016	**31**	**Qbt2**	4/1/2008	4/1/2008	4/7/2008
54-02016	**82**	**Qbt1v(u)**[g]	—	—	4/7/2008
54-02021	**20**	**Qbt2**[h]	3/26/08	—	—
54-02021	40	Qbt2[b]	—	NR	NR
54-02021	60	Qbt1v(u)	3/26/2008	3/26/2008	3/28/2008
54-02021	80	Qbt1v(u)[b]	—	NR	NR
54-02021	**100**	**Qbt1v(u)**	3/26/2008	3/26/2008	—
54-02021	**120**	**Qbt1v(c)**[i]	—	—	—
54-02021	**140**	**Qbt1g**	3/26/2008	3/26/2008	3/28/2008
54-02021	160	Qbt1g[b]	—	NR	NR
54-02021	180	Qbt1g	3/26/2008	NR	NR
54-02021	198	Qbt1g	3/26/2008	3/26/2008	3/28/2008
54-02022	20	Qbt2	3/25/2008	NR	NR
54-02022	40	Qbt2	3/25/2008	3/25/2008	3/26/2008
54-02022	60	Qbt1v(u)	3/25/2008	NR	NR
54-02022	**80**	**Qbt1v(u)**[j]	3/25/2008	—	—

Table 2.0-1 (continued)

Location ID	Port Depth (ft)	Geologic Unit	Field Screening	VOC Collection	Tritium Collection
54-02022	100	Qbt1v(u)[b]	—	NR	3/26/2008
54-02022	**120**	**Qbt1v(c)**	3/25/2008	3/25/2008	3/26/2008
54-02022	**140**	**Qbt1g**[f]	3/25/2008	—	—
54-02022	160	Qbt1g	3/25/2008	NR	NR
54-02022	180	Qbt1g	3/25/2008	NR	NR
54-02022	200	Qbt1g	3/25/2008	3/25/2008	3/26/2008
54-02023	20	Qbt2	4/8/2008	NR	NR
54-02023	**40**	**Qbt2**	4/8/2008	4/8/2008	4/22/2008
54-02023	60	Qbt1v(u)	4/8/2008	NR	NR
54-02023	80	Qbt1v(u)	4/8/2008	NR	NR
54-02023	**100**	**Qbt1v(u)**	4/8/2008	4/8/2008	4/22/2008
54-02023	**120**	**Qbt1v(c)**	4/8/2008	4/8/2008	4/22/2008
54-02023	140	Qbt1g	4/8/2008	NR	NR
54-02023	**159**	**Qbt1g**[f]	4/8/2008	—	—
54-02023	180	Qbt1g[b]	—	NR	NR
54-02023	200	Qbt1g	4/8/2008	4/8/2008	4/22/2008
54-02024	20	Qbt2	4/3/2008	NR	NR
54-02024	**40**	**Qbt2**	4/3/2008	4/3/2008	4/17/2008
54-02024	60	Qbt1v(u)	4/3/2008	NR	NR
54-02024	80	Qbt1v(u)	4/3/2008	NR	NR
54-02024	**100**	**Qbt1v(u)**	4/3/2008	4/3/2008	4/17/2008
54-02024	**120**	**Qbt1v(c)**[g]	—	—	4/17/2008
54-02024	140	Qbt1g[b]	—	NR	NR
54-02024	**160**	**Qbt1g**[f]	4/3/2008	4/3/2008	—
54-02024	180	Qbt1g	4/3/2008	NR	NR
54-02024	200	Qbt1g	4/3/2008	4/3/2008	4/17/2008
54-02025	**20**	**Qbt2**	4/4/2008	4/4/2008	4/25/2008
54-02025	60	Qbt1v(u)[b]	—	NR	NR
54-02025	**100**	**Qbt1v(u)**	4/4/2008	4/4/2008	4/25/2008
54-02025	**160**	**Qbt1g**[k]	4/4/2008	—	—
54-02025	190	Qbt1g	4/4/2008	4/4/2008	4/25/2008
54-02026	**20**	**Qbt2**	4/9/2008	4/9/2008	4/18/2008
54-02026	60	Qbt1v(u)	4/9/2008	NR	NR
54-02026	**100**	**Qbt1v(u)**	4/9/2008	4/9/2008	4/18/2008
54-02026	**160**	**Qbt1g**[l]	4/9/2008	—	—
54-02026	200	Qbt1g	4/9/2008	NR	NR
54-02026	215	Qbt1g	4/9/2008	4/9/2008	4/18/2008
54-02027	**20**	**Qbt2**	4/3/2008	4/3/2008	5/1/2008

Table 2.0-1 (continued)

Location ID	Port Depth (ft)	Geologic Unit	Field Screening	VOC Collection	Tritium Collection
54-02027	60	Qbt1v(u)	4/3/2008	NR	NR
54-02027	**100**	**Qbt1v(u)**	4/3/2008	4/3/2008	5/1/2008
54-02027	160	Qbt1g	4/3/2008	NR	NR
54-02027	**200**	**Qbt1g**[m]	4/3/2008	—	—
54-02027	220	Qbt1g	4/3/2008	NR	NR
54-02027	250	Qbt1g	4/3/2008	4/3/2008	5/1/2008
54-02028	**20**	**Qbt2**	4/8/2008	4/8/2008	4/21/2008
54-02028	60	Qbt1v(u)	4/8/2008	NR	NR
54-02028	**100**	**Qbt1v(u)**	4/8/2008	4/8/2008	4/21/2008
54-02028	**160**	**Qbt1g**[m]	4/8/2008	—	—
54-02028	200	Qbt1g	4/8/2008	NR	NR
54-02028	220	Qbt1g	4/8/2008	NR	NR
54-02028	250	Qbt1g	4/8/2008	4/8/2008	4/21/2008
54-02031	**20**	**Qbt2**	3/27/2008	3/27/2008	5/2/2008
54-02031	60	Qbt1v(u)	3/27/2008	NR	NR
54-02031	**100**	**Qbt1v(u)**	3/27/2008	3/27/2008	5/2/2008
54-02031	**160**	**Qbt1g**[n]	3/27/2008	—	—
54-02031	200	Qbt1g	3/27/2008	NR	5/2/2008
54-02031	220	Qbt1g[b]	—	NR	NR
54-02031	**260**	**Qct**	3/27/2008	3/27/2008	5/2/2008
54-02034	**20**	**Qbt2**	3/26/2008	3/26/2008	3/27/2008
54-02034	**60**	**Qbt1v(u)**[d]	3/26/2008	—	—
54-02034	100	Qbt1v(u)	3/26/2008	3/26/2008	3/27/2008
54-02034	**160**	**Qbt1g**[o]	3/26/2008	—	—
54-02034	200	Qbt1g	3/26/2008	NR	NR
54-02034	220	Qbt1g	3/26/2008	3/26/2008	3/27/2008
54-02034	**260**	**Qct**	3/26/2008	3/26/2008	3/27/2008
54-02034	**300**	**Qbo**	3/26/2008	3/26/2008	3/27/2008
54-02089	13	Qbt2	4/2/2008	NR	NR
54-02089	**31**	**Qbt2**	4/2/2008	4/2/2008	4/10/2008
54-02089	**46**	**Qbt1v(u)**[p]	4/2/2008	—	—
54-02089	86	Qbt1v(u)	4/2/2008	4/2/2008	4/10/2008
54-24238	44	Qbt1v(u)	4/1/2008	NR	NR
54-24238	**64**	**Qbt1v(u)**[q]	4/1/2008	—	—
54-24238	84	Qbt1v(u)	4/1/2008	4/1/2008	4/9/2008
54-24239	**25**	**Qbt2**	3/31/2008	3/31/2008	4/3/2008
54-24239	50	Qbt1v(u)	3/31/2008	NR	NR
54-24239	**75**	**Qbt1v(u)**[r]	3/31/2008	—	—

Table 2.0-1 (continued)

Location ID	Port Depth (ft)	Geologic Unit	Field Screening	VOC Collection	Tritium Collection
54-24239	100	Qbt1v(u)	3/31/2008	NR	NR
54-24239	110.5	Qbt1v(u)	3/31/2008	3/31/2008	4/3/2008
54-24240	**28**	**Qbt2**	3/27/2008	3/27/2008	4/2/2008
54-24240	**53**	**Qbt1v(u)**[s]	3/27/2008	—	—
54-24240	78	Qbt1v(u)	3/27/2008	NR	NR
54-24240	103	Qbt1v(u)	3/27/2008	3/27/2008	4/1/2008
54-24240	**128**	**Qbt1v(c)**	3/27/2008	3/27/2008	4/1/2008
54-24240	**153**	**Qbt1g**	3/27/2008	3/27/2008	4/1/2008
54-24241	**73**	**Qbt1v(u)**[t]	3/28/2008	—	—
54-24241	93	Qbt1v(u)	3/28/2008	3/28/2008	4/4/2008
54-24241	**113**	**Qbt1v(c)**	3/28/2008	3/28/2008	4/4/2008
54-24241	**133**	**Qbt1g**[u]	3/28/2008	—	—
54-24241	153	Qbt1g	3/28/2008	NR	NR
54-24241	173	Qbt1g	3/28/2008	NR	NR
54-24241	193	Qbt1g	3/28/2008	3/28/2008	4/4/2008
54-24242	**25**	**Qbt2**	3/27/2008	3/27/2008	4/2/2008
54-24242	**50**	**Qbt1v(u)**[v]	3/27/2008	—	—
54-24242	75	Qbt1v(u)	3/27/2008	NR	NR
54-24242	99.5	Qbt1v(u)	3/27/2008	3/27/2008	4/2/2008
54-24243	**25**	**Qbt2**	4/9/2008	4/9/2008	4/23/2008
54-24243	50	Qbt1v(u)	4/9/2008	NR	NR
54-24243	**75**	**Qbt1v(u)**[d]	4/9/2008	—	—
54-24243	100	Qbt1v(u)	4/9/2008	4/9/2008	4/23/2008
54-24243	**125**	**Qbt1v(c)**	4/9/2008	4/9/2008	4/23/2008
54-24244[w]					
54-24399	**550-608**	**Qbo**	4/8/2008	4/8/2008	4/8/2008
54-27641	**32**	**Qbt2**	3/28/2008	3/28/2008	4/1/2008
54-27641	**82**	**Qbt1v(u)**	3/28/2008	3/28/2008	4/1/2008
54-27641	**115**	**Qbt1v(c)**	3/28/2008	3/28/2008	4/1/2008
54-27641	**182**	**Qbt1g**[x]	3/28/2008	—	—
54-27641	232	Qbt1g	3/28/2008	3/28/2008	4/1/2008
54-27641	**272**	**Qct**	3/28/2008	3/28/2008	4/1/2008
54-27641	**332**	**Qbo**	3/28/2008	3/28/2008	4/1/2008
54-27642	**30**	**Qbt2**	4/2/2008	4/2/2008	4/8/2008
54-27642	**75**	**Qbt1v(u)**	4/2/2008	4/2/2008	4/8/2008
54-27642	**116**	**Qbt1v(c)**	4/2/2008	4/2/2008	4/8/2008
54-27642	**175**	**Qbt1g**[y]	4/2/2008	—	5/2/2008
54-27642	235	Qbt1g	4/2/2008	4/2/2008	4/8/2008

Table 2.0-1 (continued)

Location ID	Port Depth (ft)	Geologic Unit	Field Screening	VOC Collection	Tritium Collection
54-27642	**275**	**Qct**	4/2/2008	4/2/2008	4/8/2008
54-27642	**338**	**Qbo**	4/2/2008	4/2/2008	4/8/2008
54-27643	**30**	**Qbt2**	4/7/2008	4/7/2008	4/11/2008
54-27643	**74**	**Qbt1v(u)**	4/7/2008	4/7/2008	4/11/2008
54-27643	**117**	**Qbt1v(c)**	4/7/2008	4/7/2008	4/11/2008
54-27643	**167**	**Qbt1g**[y]	4/7/2008	—	—
54-27643	235	Qbt1g	4/7/2008	4/7/2008	4/11/2008
54-27643	**275**	**Qct**	4/7/2008	4/7/2008	4/11/2008
54-27643	**354**	**Qbo**	4/7/2008	4/7/2008	4/11/2008

Note: Sampling is required at the bolded port depths per the "Approval with Modifications of the Interim Monitoring Plan."

[a] NR = Sample collection not required.

[b] Port blocked.

[c] — = Screening not performed or sample not collected.

[d] Sample collection for borehole adjusted to 100-ft port to collect sample from deepest port in geologic unit.

[e] Tritium not able to be collected from geologic unit due to damaged port.

[f] Sample collection for borehole adjusted to 200-ft port to collect sample from deepest port in geologic unit.

[g] SUMMA and field screening not collected from geologic unit due to blocked port.

[h] SUMMA and tritium not collected from geologic unit; collection for borehole adjusted to 60-ft port.

[i] SUMMA, tritium, and field screening not collected from geologic unit due to blocked port.

[j] SUMMA not collected from geologic unit; tritium collection for borehole adjusted to 100-ft port.

[k] Sample collection for borehole adjusted to 190-ft port to collect sample from deepest port in geologic unit.

[l] Sample collection for borehole adjusted to 215-ft port to collect sample from deepest port in geologic unit.

[m] Sample collection for borehole adjusted to 250-ft port to collect sample from deepest port in geologic unit.

[n] SUMMA not collected from geologic unit; tritium collection for borehole adjusted to 200-ft port.

[o] Sample collection for borehole adjusted to 220-ft port to collect sample from deepest port in geologic unit.

[p] Sample collection for borehole adjusted to 86-ft port to collect sample from deepest port in geologic unit.

[q] Sample collection for borehole adjusted to 84-ft port to collect sample from deepest port in geologic unit.

[r] Sample collection for borehole adjusted to 110.5-ft port to collect sample from deepest port in geologic unit.

[s] Sample collection for borehole adjusted to 103-ft port to collect sample from deepest port in geologic unit.

[t] Sample collection for borehole adjusted to 93-ft port to collect sample from deepest port in geologic unit.

[u] Sample collection for borehole adjusted to 193-ft port to collect sample from deepest port in geologic unit.

[v] Sample collection for borehole adjusted to 99.5-ft port to collect sample from deepest port in geological unit.

[w] Sample could not be collected because the FLUTe membrane in the borehole was damaged.

[x] Sample collection for borehole adjusted to 232-ft port to collect sample from deepest port in geological unit.

[y] Sample collection for borehole adjusted to 235-ft port to collect sample from deepest port in geological unit.

Table 5.0-1
Detected Pore-Gas VOC Sampling Results at MDA L

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-02001	40–40	Carbon Tetrachloride	—[a]	ND[b]	1700
54-02001	40–40	Chloroform	—	ND	4500
54-02001	40–40	Cyclohexane	—	ND	36000
54-02001	40–40	Dichlorodifluoromethane	—	10000	14000
54-02001	40–40	Dichloroethane[1,1-]	—	59000	46000
54-02001	40–40	Dichloroethane[1,2-]	—	83000	72000
54-02001	40–40	Dichloroethene[1,1-]	—	240000	10000
54-02001	40–40	Dichloropropane[1,2-]	—	2900	2300
54-02001	40–40	Methylene Chloride	—	ND	51000
54-02001	40–40	Tetrachloroethene	—	180000	150000
54-02001	40–40	Toluene	—	ND	1100
54-02001	40–40	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	ND	36000
54-02001	40–40	Trichloroethane[1,1,1-]	—	1300000	1300000
54-02001	40–40	Trichloroethene	—	410000	360000
54-02001	40–40	Trichlorofluoromethane	—	8700	10000
54-02001	100–100	Chloroform	—	ND	4500
54-02001	100–100	Cyclohexane	—	ND	33000
54-02001	100–100	Dichlorodifluoromethane	—	3300	6500
54-02001	100–100	Dichloroethane[1,1-]	—	15000	31000
54-02001	100–100	Dichloroethane[1,2-]	—	27000	52000
54-02001	100–100	Dichloroethene[1,1-]	—	100000	13000
54-02001	100–100	Dichloropropane[1,2-]	—	1400	2800
54-02001	100–100	Methylene Chloride	—	ND	46000
54-02001	100–100	Tetrachloroethene	—	54000	98000
54-02001	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	ND	23000
54-02001	100–100	Trichloroethane[1,1,1-]	—	430000	1200000
54-02001	100–100	Trichloroethene	—	99000	200000
54-02001	100–100	Trichlorofluoromethane	—	2600	5800
54-02001	120–120	Chloroform	—	ND	4600
54-02001	120–120	Cyclohexane	—	ND	24000
54-02001	120–120	Dichlorodifluoromethane	—	5400	3400
54-02001	120–120	Dichloroethane[1,1-]	—	28000	25000
54-02001	120–120	Dichloroethane[1,2-]	—	52000	36000
54-02001	120–120	Dichloroethene[1,1-]	—	230000	16000
54-02001	120–120	Dichloropropane[1,2-]	—	4300	3800
54-02001	120–120	Methylene Chloride	—	ND	36000

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-02001	120–120	Propylene	—	ND	3600
54-02001	120–120	Tetrachloroethene	—	52000	50000
54-02001	120–120	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	ND	20000
54-02001	120–120	Trichloroethane[1,1,1-]	—	1100000	810000
54-02001	120–120	Trichloroethene	—	230000	200000
54-02001	120–120	Trichlorofluoromethane	—	4900	ND
54-02001	200–200	Carbon Tetrachloride	—	ND	780
54-02001	200–200	Chloroform	—	ND	1500
54-02001	200–200	Cyclohexane	—	ND	12000
54-02001	200–200	Dichlorodifluoromethane	—	4200	2200
54-02001	200–200	Dichloroethane[1,1-]	—	13000	7500
54-02001	200–200	Dichloroethane[1,2-]	—	6000	3300
54-02001	200–200	Dichloroethene[1,1-]	—	140000	13000
54-02001	200–200	Dichloropropane[1,2-]	—	920	460
54-02001	200–200	Methylene Chloride	—	ND	8300
54-02001	200–200	Tetrachloroethene	—	21000	11000
54-02001	200–200	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	ND	13000
54-02001	200–200	Trichloroethane[1,1,1-]	—	550000	440000
54-02001	200–200	Trichloroethene	—	150000	90000
54-02001	200–200	Trichlorofluoromethane	—	4200	2400
54-02002	60–60	Dichloroethane[1,1-]	—	—	22000
54-02002	60–60	Dichloroethene[1,1-]	—	—	29000
54-02002	60–60	Dichloropropane[1,2-]	—	—	47000
54-02002	60–60	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	290000
54-02002	60–60	Trichloroethane[1,1,1-]	—	—	1600000
54-02002	60–60	Trichloroethene	—	—	230000
54-02002	100–100	Chloroform	—	—	27000
54-02002	100–100	Dichloroethene[1,1-]	—	—	39000
54-02002	100–100	Dichloropropane[1,2-]	—	—	55000
54-02002	100–100	Methylene Chloride	—	—	59000
54-02002	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	310000
54-02002	100–100	Trichloroethane[1,1,1-]	—	—	1500000
54-02002	100–100	Trichloroethene	—	—	260000
54-02002	120–120	Chloroform	—	—	25000
54-02002	120–120	Dichloroethane[1,2-]	—	—	18000
54-02002	120–120	Dichloroethene[1,1-]	—	—	40000
54-02002	120–120	Dichloropropane[1,2-]	—	—	42000

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-02002	120–120	Methylene Chloride	—	—	60000
54-02002	120–120	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	270000
54-02002	120–120	Trichloroethane[1,1,1-]	—	—	1200000
54-02002	120–120	Trichloroethene	—	—	240000
54-02002	200–200	Chloroform	—	—	25000
54-02002	200–200	Dichloroethane[1,1-]	—	—	8300
54-02002	200–200	Dichloroethane[1,2-]	—	—	8600
54-02002	200–200	Dichloroethene[1,1-]	—	—	61000
54-02002	200–200	Dichloropropane[1,2-]	—	—	17000
54-02002	200–200	Methylene Chloride	—	—	66000
54-02002	200–200	Tetrachloroethene	—	—	20000
54-02002	200–200	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	260000
54-02002	200–200	Trichloroethane[1,1,1-]	—	—	910000
54-02002	200–200	Trichloroethene	—	—	200000
54-02002	200–200	Trichlorofluoromethane	—	—	32000
54-02016	31–31	Carbon Tetrachloride	—	—	3000
54-02016	31–31	Chloroform	—	—	16000
54-02016	31–31	Cyclohexane	—	—	37000
54-02016	31–31	Dichloroethane[1,1-]	—	—	25000
54-02016	31–31	Dichloroethane[1,2-]	—	—	79000
54-02016	31–31	Dichloroethene[1,1-]	—	—	29000
54-02016	31–31	Dichloropropane[1,2-]	—	—	42000
54-02016	31–31	Methylene Chloride	—	—	3000
54-02016	31–31	Tetrachloroethene	—	—	30000
54-02016	31–31	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	390000
54-02016	31–31	Trichloroethane[1,1,1-]	—	—	1400000
54-02016	31–31	Trichloroethene	—	—	290000
54-02016	31–31	Trichlorofluoromethane	—	—	9900
54-02021	60–60	Chloroform	—	—	850
54-02021	60–60	Dichlorodifluoromethane	—	—	840
54-02021	60–60	Dichloroethane[1,1-]	—	—	4600
54-02021	60–60	Dichloroethane[1,2-]	—	—	4700
54-02021	60–60	Dichloroethene[1,1-]	—	—	5900
54-02021	60–60	Methylene Chloride	—	—	780
54-02021	60–60	Tetrachloroethene	—	—	4300
54-02021	60–60	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	4700
54-02021	60–60	Trichloroethane[1,1,1-]	—	—	220000

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-02021	60–60	Trichloroethene	—	—	37000
54-02021	100–100	Chloroform	—	—	1200
54-02021	100–100	Dichlorodifluoromethane	—	—	1100
54-02021	100–100	Dichloroethane[1,1-]	—	—	5500
54-02021	100–100	Dichloroethane[1,2-]	—	—	7600
54-02021	100–100	Dichloroethene[1,1-]	—	—	8100
54-02021	100–100	Dichloropropane[1,2-]	—	—	980
54-02021	100–100	Methylene Chloride	—	—	3200
54-02021	100–100	Tetrachloroethene	—	—	6500
54-02021	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	6400
54-02021	100–100	Trichloroethane[1,1,1-]	—	—	330000
54-02021	100–100	Trichloroethene	—	—	54000
54-02021	100–100	Trichlorofluoromethane	—	—	1200
54-02021	140–140	Chloroform	—	—	1300
54-02021	140–140	Dichlorodifluoromethane	—	—	1500
54-02021	140–140	Dichloroethane[1,1-]	—	—	5500
54-02021	140–140	Dichloroethane[1,2-]	—	—	6000
54-02021	140–140	Dichloroethene[1,1-]	—	—	9400
54-02021	140–140	Methylene Chloride	—	—	4000
54-02021	140–140	Tetrachloroethene	—	—	6100
54-02021	140–140	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	8100
54-02021	140–140	Trichloroethane[1,1,1-]	—	—	350000
54-02021	140–140	Trichloroethene	—	—	58000
54-02021	140–140	Trichlorofluoromethane	—	—	1700
54-02021	198–198	Chloroform	—	—	930
54-02021	198–198	Dichlorodifluoromethane	—	—	1600
54-02021	198–198	Dichloroethane[1,1-]	—	—	3700
54-02021	198–198	Dichloroethane[1,2-]	—	—	1700
54-02021	198–198	Dichloroethene[1,1-]	—	—	9100
54-02021	198–198	Methylene Chloride	—	—	3700
54-02021	198–198	Tetrachloroethene	—	—	4700
54-02021	198–198	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	8800
54-02021	198–198	Trichloroethane[1,1,1-]	—	—	230000
54-02021	198–198	Trichloroethene	—	—	46000
54-02021	198–198	Trichlorofluoromethane	—	—	1700
54-02022	40–40	Chloroform	—	1600	590
54-02022	40–40	Cyclohexane	—	6000(J+)	4400

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-02022	40–40	Dichlorodifluoromethane	—	1800	540
54-02022	40–40	Dichloroethane[1,1-]	—	8400	3700
54-02022	40–40	Dichloroethane[1,2-]	—	13000	3900
54-02022	40–40	Dichloroethene[1,1-]	—	99000	2300
54-02022	40–40	Dichloropropane[1,2-]	—	1300	520
54-02022	40–40	Methylene Chloride	—	740	220
54-02022	40–40	Tetrachloroethene	—	13000	5700
54-02022	40–40	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	5200	2600
54-02022	40–40	Trichloroethane[1,1,1-]	—	380000	180000
54-02022	40–40	Trichloroethene	—	72000	29000
54-02022	40–40	Trichlorofluoromethane	—	1600	ND
54-02022	100–100	Chloroform	—	2200	—
54-02022	100–100	Cyclohexane	—	8400(J+)	—
54-02022	100–100	Dichlorodifluoromethane	—	2300	—
54-02022	100–100	Dichloroethane[1,1-]	—	11000	—
54-02022	100–100	Dichloroethane[1,2-]	—	18000	—
54-02022	100–100	Dichloroethene[1,1-]	—	140000	—
54-02022	100–100	Dichloropropane[1,2-]	—	1700	—
54-02022	100–100	Methylene Chloride	—	5400	—
54-02022	100–100	Tetrachloroethene	—	13000	—
54-02022	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	6800	—
54-02022	100–100	Trichloroethane[1,1,1-]	—	540000	—
54-02022	100–100	Trichloroethene	—	100000	—
54-02022	100–100	Trichlorofluoromethane	—	2200	—
54-02022	120–120	Chloroform	—	2200	1700
54-02022	120–120	Cyclohexane	—	8900(J+)	14000
54-02022	120–120	Dichlorodifluoromethane	—	2400	1700
54-02022	120–120	Dichloroethane[1,1-]	—	11000	8800
54-02022	120–120	Dichloroethane[1,2-]	—	14000	9400
54-02022	120–120	Dichloroethene[1,1-]	—	120000	8900
54-02022	120–120	Dichloropropane[1,2-]	—	1500	1200
54-02022	120–120	Methylene Chloride	—	5500	4100
54-02022	120–120	Tetrachloroethene	—	12000	9800
54-02022	120–120	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	4600	7200
54-02022	120–120	Trichloroethane[1,1,1-]	—	580000	560000
54-02022	120–120	Trichloroethene	—	110000	85000
54-02022	120–120	Trichlorofluoromethane	—	2300	ND

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-02022	200–200	Carbon Tetrachloride	—	620	420
54-02022	200–200	Chloroform	—	870	740
54-02022	200–200	Cyclohexane	—	3900(J+)	6800
54-02022	200–200	Dichlorodifluoromethane	—	2500	1600
54-02022	200–200	Dichloroethane[1,1-]	—	3600	3300
54-02022	200–200	Dichloroethane[1,2-]	—	850	600
54-02022	200–200	Dichloroethene[1,1-]	—	50000	10000
54-02022	200–200	Methylene Chloride	—	4100	3600
54-02022	200–200	Tetrachloroethene	—	5400	4100
54-02022	200–200	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	6500	7600
54-02022	200–200	Trichloroethane[1,1,1-]	—	240000	250000
54-02022	200–200	Trichloroethene	—	56000	46000
54-02022	200–200	Trichlorofluoromethane	—	2400	1900
54-02023	40–40	Chloroform	—	—	1600
54-02023	40–40	Dichloroethane[1,1-]	—	—	510
54-02023	40–40	Dichloroethene[1,1-]	—	—	3000
54-02023	40–40	Tetrachloroethene	—	—	1400
54-02023	40–40	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	16000
54-02023	40–40	Trichloroethane[1,1,1-]	—	—	58000
54-02023	40–40	Trichloroethene	—	—	14000
54-02023	40–40	Trichlorofluoromethane	—	—	2000
54-02023	100–100	Chloroform	—	—	2200
54-02023	100–100	Dichloroethene[1,1-]	—	—	5000
54-02023	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	25000
54-02023	100–100	Trichloroethane[1,1,1-]	—	—	87000
54-02023	100–100	Trichloroethene	—	—	20000
54-02023	100–100	Trichlorofluoromethane	—	—	2800
54-02023	120–120	Benzene	—	—	170
54-02023	120–120	Carbon Tetrachloride	—	—	640
54-02023	120–120	Chloroform	—	—	2400
54-02023	120–120	Dichlorodifluoromethane	—	—	620
54-02023	120–120	Dichloroethane[1,1-]	—	—	1200
54-02023	120–120	Dichloroethane[1,2-]	—	—	200
54-02023	120–120	Dichloroethene[1,1-]	—	—	5600
54-02023	120–120	Dichloropropane[1,2-]	—	—	720
54-02023	120–120	Methylene Chloride	—	—	600
54-02023	120–120	Tetrachloroethene	—	—	2700

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-02023	120–120	Toluene	—	—	110
54-02023	120–120	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	27000
54-02023	120–120	Trichloroethane[1,1,1-]	—	—	91000
54-02023	120–120	Trichloroethene	—	—	23000
54-02023	120–120	Trichlorofluoromethane	—	—	3400
54-02023	200–200	Chloroform	—	—	2100
54-02023	200–200	Dichloroethene[1,1-]	—	—	8600
54-02023	200–200	Methylene Chloride	—	—	1200
54-02023	200–200	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	39000
54-02023	200–200	Trichloroethane[1,1,1-]	—	—	94000
54-02023	200–200	Trichloroethene	—	—	25000
54-02023	200–200	Trichlorofluoromethane	—	—	4000
54-02024	40–40	Chloroform	—	—	1800
54-02024	40–40	Dichloroethene[1,1-]	—	—	2700
54-02024	40–40	Tetrachloroethene	—	—	1700
54-02024	40–40	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	17000
54-02024	40–40	Trichloroethane[1,1,1-]	—	—	63000
54-02024	40–40	Trichloroethene	—	—	13000
54-02024	40–40	Trichlorofluoromethane	—	—	2200
54-02024	100–100	Chloroform	—	—	3600
54-02024	100–100	Dichloroethene[1,1-]	—	—	5700
54-02024	100–100	Methylene Chloride	—	—	2100
54-02024	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	33000
54-02024	100–100	Trichloroethane[1,1,1-]	—	—	120000
54-02024	100–100	Trichloroethene	—	—	24000
54-02024	100–100	Trichlorofluoromethane	—	—	4200
54-02024	160–160	Chloroform	—	—	4700
54-02024	160–160	Dichloroethene[1,1-]	—	—	8600
54-02024	160–160	Methylene Chloride	—	—	5800
54-02024	160–160	Tetrachloroethene	—	—	3700
54-02024	160–160	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	45000
54-02024	160–160	Trichloroethane[1,1,1-]	—	—	140000
54-02024	160–160	Trichloroethene	—	—	34000
54-02024	160–160	Trichlorofluoromethane	—	—	5700
54-02024	200–200	Chloroform	—	—	4400
54-02024	200–200	Dichloroethene[1,1-]	—	—	10000
54-02024	200–200	Methylene Chloride	—	—	7300

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-02024	200–200	Tetrachloroethene	—	—	2900
54-02024	200–200	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	51000
54-02024	200–200	Trichloroethane[1,1,1-]	—	—	130000
54-02024	200–200	Trichloroethene	—	—	32000
54-02024	200–200	Trichlorofluoromethane	—	—	5800
54-02025	20–20	Chloroform	—	—	5000
54-02025	20–20	Dichloroethane[1,1-]	—	—	2300
54-02025	20–20	Dichloroethene[1,1-]	—	—	5000
54-02025	20–20	Dichloropropane[1,2-]	—	—	6500
54-02025	20–20	Tetrachloroethene	—	—	7000
54-02025	20–20	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	40000
54-02025	20–20	Trichloroethane[1,1,1-]	—	—	220000
54-02025	20–20	Trichloroethene	—	—	33000
54-02025	20–20	Trichlorofluoromethane	—	—	4500
54-02025	100–100	Chloroform	—	—	9500
54-02025	100–100	Dichloroethene[1,1-]	—	—	12000
54-02025	100–100	Dichloropropane[1,2-]	—	—	12000
54-02025	100–100	Methylene Chloride	—	—	8600
54-02025	100–100	Tetrachloroethene	—	—	9800
54-02025	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	76000
54-02025	100–100	Trichloroethane[1,1,1-]	—	—	330000
54-02025	100–100	Trichloroethene	—	—	60000
54-02025	100–100	Trichlorofluoromethane	—	—	9800
54-02025	190–190	Chloroform	—	—	10000
54-02025	190–190	Dichloroethene[1,1-]	—	—	22000
54-02025	190–190	Methylene Chloride	—	—	21000
54-02025	190–190	Tetrachloroethene	—	—	7700
54-02025	190–190	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	100000
54-02025	190–190	Trichloroethane[1,1,1-]	—	—	300000
54-02025	190–190	Trichloroethene	—	—	70000
54-02025	190–190	Trichlorofluoromethane	—	—	13000
54-02026	20–20	Chloroform	—	—	240
54-02026	20–20	Dichloroethene[1,1-]	—	—	350
54-02026	20–20	Tetrachloroethene	—	—	270
54-02026	20–20	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	2300
54-02026	20–20	Trichloroethane[1,1,1-]	—	—	7900
54-02026	20–20	Trichloroethene	—	—	1800

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-02026	20–20	Trichlorofluoromethane	—	—	250
54-02026	100–100	Chloroform	—	—	450
54-02026	100–100	Dichloroethene[1,1-]	—	—	780
54-02026	100–100	Tetrachloroethene	—	—	410
54-02026	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	4800
54-02026	100–100	Trichloroethane[1,1,1-]	—	—	14000
54-02026	100–100	Trichloroethene	—	—	3100
54-02026	100–100	Trichlorofluoromethane	—	—	510
54-02026	215–215	Chloroform	—	—	200
54-02026	215–215	Dichlorodifluoromethane	—	—	120
54-02026	215–215	Dichloroethene[1,1-]	—	—	810
54-02026	215–215	Methylene Chloride	—	—	130
54-02026	215–215	Tetrachloroethene	—	—	240
54-02026	215–215	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	4200
54-02026	215–215	Trichloroethane[1,1,1-]	—	—	8400
54-02026	215–215	Trichloroethene	—	—	2100
54-02026	215–215	Trichlorofluoromethane	—	—	450
54-02027	20–20	Chloroform	—	—	970
54-02027	20–20	Dichloroethene[1,1-]	—	—	1300
54-02027	20–20	Tetrachloroethene	—	—	790
54-02027	20–20	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	8500
54-02027	20–20	Trichloroethane[1,1,1-]	—	—	28000
54-02027	20–20	Trichloroethene	—	—	5800
54-02027	20–20	Trichlorofluoromethane	—	—	1100
54-02027	100–100	Chloroform	—	—	2700
54-02027	100–100	Dichloroethene[1,1-]	—	—	3600
54-02027	100–100	Methylene Chloride	—	—	950
54-02027	100–100	Tetrachloroethene	—	—	2000
54-02027	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	23000
54-02027	100–100	Trichloroethane[1,1,1-]	—	—	74000
54-02027	100–100	Trichloroethene	—	—	16000
54-02027	100–100	Trichlorofluoromethane	—	—	2600
54-02027	250–250	Chloroform	—	—	1400
54-02027	250–250	Dichloroethene[1,1-]	—	—	6100
54-02027	250–250	Methylene Chloride	—	—	1500
54-02027	250–250	Tetrachloroethene	—	—	1500
54-02027	250–250	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	25000

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-02027	250–250	Trichloroethane[1,1,1-]	—	—	46000
54-02027	250–250	Trichloroethene	—	—	12000
54-02027	250–250	Trichlorofluoromethane	—	—	2500
54-02028	20–20	Chloroform	—	—	330
54-02028	20–20	Dichloroethene[1,1-]	—	—	450
54-02028	20–20	Tetrachloroethene	—	—	320
54-02028	20–20	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	3100
54-02028	20–20	Trichloroethane[1,1,1-]	—	—	12000
54-02028	20–20	Trichloroethene	—	—	2800
54-02028	20–20	Trichlorofluoromethane	—	—	390
54-02028	100–100	Chloroform	—	—	500
54-02028	100–100	Dichloroethene[1,1-]	—	—	870
54-02028	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	5300
54-02028	100–100	Trichloroethane[1,1,1-]	—	—	16000
54-02028	100–100	Trichloroethene	—	—	4200
54-02028	100–100	Trichlorofluoromethane	—	—	610
54-02028	250–250	Chloroform	—	—	230
54-02028	250–250	Dichloroethene[1,1-]	—	—	1500
54-02028	250–250	Methylene Chloride	—	—	170
54-02028	250–250	Tetrachloroethene	—	—	320
54-02028	250–250	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	7000
54-02028	250–250	Trichloroethane[1,1,1-]	—	—	12000
54-02028	250–250	Trichloroethene	—	—	3300
54-02028	250–250	Trichlorofluoromethane	—	—	730
54-02031	20–20	Dichloroethane[1,1-]	—	—	1300
54-02031	20–20	Dichloroethene[1,1-]	—	—	3000
54-02031	20–20	Tetrachloroethene	—	—	3300
54-02031	20–20	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	5500
54-02031	20–20	Trichloroethane[1,1,1-]	—	—	69000
54-02031	20–20	Trichloroethene	—	—	14000
54-02031	100–100	Dichloroethane[1,1-]	—	—	3000
54-02031	100–100	Dichloroethene[1,1-]	—	—	7200
54-02031	100–100	Tetrachloroethene	—	—	8400
54-02031	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	16000
54-02031	100–100	Trichloroethane[1,1,1-]	—	—	160000
54-02031	100–100	Trichloroethene	—	—	36000
54-02031	260–260	Dichloroethene[1,1-]	—	—	8000

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-02031	260–260	Methylene Chloride	—	—	1300
54-02031	260–260	Tetrachloroethene	—	—	5600
54-02031	260–260	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	20000
54-02031	260–260	Trichloroethane[1,1,1-]	—	—	93000
54-02031	260–260	Trichloroethene	—	—	24000
54-02031	260–260	Trichlorofluoromethane	—	—	2200
54-02034	20–20	Chloroform	—	—	99
54-02034	20–20	Cyclohexane	—	—	800
54-02034	20–20	Dichlorodifluoromethane	—	—	150
54-02034	20–20	Dichloroethane[1,1-]	—	—	300
54-02034	20–20	Dichloroethene[1,1-]	—	—	580
54-02034	20–20	Tetrachloroethene	—	—	480
54-02034	20–20	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	510
54-02034	20–20	Trichloroethane[1,1,1-]	—	—	33000
54-02034	20–20	Trichloroethene	—	—	4600
54-02034	100–100	Chloroform	—	—	170
54-02034	100–100	Cyclohexane	—	—	1400
54-02034	100–100	Dichlorodifluoromethane	—	—	270
54-02034	100–100	Dichloroethane[1,1-]	—	—	700
54-02034	100–100	Dichloroethane[1,2-]	—	—	230
54-02034	100–100	Dichloroethene[1,1-]	—	—	1300
54-02034	100–100	Ethanol	—	—	180
54-02034	100–100	Methylene Chloride	—	—	140
54-02034	100–100	Tetrachloroethene	—	—	770
54-02034	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	960
54-02034	100–100	Trichloroethane[1,1,1-]	—	—	56000
54-02034	100–100	Trichloroethene	—	—	9800
54-02034	100–100	Trichlorofluoromethane	—	—	290
54-02034	220–220	Acetone	—	—	130
54-02034	220–220	Carbon Tetrachloride	—	—	55(J)
54-02034	220–220	Cyclohexane	—	—	450
54-02034	220–220	Dichlorodifluoromethane	—	—	300
54-02034	220–220	Dichloroethane[1,1-]	—	—	120
54-02034	220–220	Dichloroethene[1,1-]	—	—	1200
54-02034	220–220	Methylene Chloride	—	—	72
54-02034	220–220	Tetrachloroethene	—	—	200
54-02034	220–220	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	960

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-02034	220–220	Trichloroethane[1,1,1-]	—	—	16000
54-02034	220–220	Trichloroethene	—	—	2400
54-02034	220–220	Trichlorofluoromethane	—	—	400
54-02034	260–260	Carbon Tetrachloride	—	—	32
54-02034	260–260	Dichlorodifluoromethane	—	—	150
54-02034	260–260	Dichloroethane[1,1-]	—	—	11
54-02034	260–260	Dichloroethene[1,1-]	—	—	430
54-02034	260–260	Tetrachloroethene	—	—	52
54-02034	260–260	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	380
54-02034	260–260	Trichloroethane[1,1,1-]	—	—	3800
54-02034	260–260	Trichloroethene	—	—	240
54-02034	260–260	Trichlorofluoromethane	—	—	280
54-02034	300–300	Acetone	—	—	9.8
54-02034	300–300	Carbon Tetrachloride	—	—	7.2
54-02034	300–300	Dichlorodifluoromethane	—	—	38
54-02034	300–300	Dichloroethene[1,1-]	—	—	79
54-02034	300–300	Tetrachloroethene	—	—	17
54-02034	300–300	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	100
54-02034	300–300	Trichloroethane[1,1,1-]	—	—	370
54-02034	300–300	Trichloroethene	—	—	38
54-02034	300–300	Trichlorofluoromethane	—	—	84
54-02089	28.5–33.5	Carbon Tetrachloride	—	—	5400
54-02089	28.5–33.5	Chloroform	—	—	25000
54-02089	28.5–33.5	Cyclohexane	—	—	55000
54-02089	28.5–33.5	Dichloroethane[1,1-]	—	—	50000
54-02089	28.5–33.5	Dichloroethane[1,2-]	—	—	56000
54-02089	28.5–33.5	Dichloroethene[1,1-]	—	—	27000
54-02089	28.5–33.5	Dichloropropane[1,2-]	—	—	130000
54-02089	28.5–33.5	Tetrachloroethene	—	—	33000
54-02089	28.5–33.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	430000
54-02089	28.5–33.5	Trichloroethane[1,1,1-]	—	—	1600000
54-02089	28.5–33.5	Trichloroethene	—	—	560000
54-02089	28.5–33.5	Trichlorofluoromethane	—	—	15000
54-02089	83.5–88.5	Carbon Tetrachloride	—	—	7700
54-02089	83.5–88.5	Chloroform	—	—	41000
54-02089	83.5–88.5	Cyclohexane	—	—	73000
54-02089	83.5–88.5	Dichlorodifluoromethane	—	—	3100

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-02089	83.5–88.5	Dichloroethane[1,1-]	—	—	54000
54-02089	83.5–88.5	Dichloroethane[1,2-]	—	—	25000
54-02089	83.5–88.5	Dichloroethene[1,1-]	—	—	50000
54-02089	83.5–88.5	Dichloropropane[1,2-]	—	—	290000
54-02089	83.5–88.5	Methylene Chloride	—	—	3300
54-02089	83.5–88.5	Tetrachloroethene	—	—	54000
54-02089	83.5–88.5	Tetrahydrofuran	—	—	1800
54-02089	83.5–88.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	600000
54-02089	83.5–88.5	Trichloroethane[1,1,1-]	—	—	2700000
54-02089	83.5–88.5	Trichloroethene	—	—	770000
54-02089	83.5–88.5	Trichlorofluoromethane	—	—	23000
54-24238	43–45	Carbon Disulfide	5500	—	—
54-24238	43–45	Chloroform	57000	—	—
54-24238	43–45	Cyclohexane	66000	—	—
54-24238	43–45	Dichloroethane[1,1-]	72000	—	—
54-24238	43–45	Dichloroethane[1,2-]	64000	—	—
54-24238	43–45	Dichloroethene[1,1-]	160000	—	—
54-24238	43–45	Dichloropropane[1,2-]	430000	—	—
54-24238	43–45	Methylene Chloride	25000	—	—
54-24238	43–45	Tetrachloroethene	92000	—	—
54-24238	43–45	Trichloro-1,2,2-trifluoroethane[1,1,2-]	1000000	—	—
54-24238	43–45	Trichloroethane[1,1,1-]	3600000	—	—
54-24238	43–45	Trichloroethene	840000	—	—
54-24238	43–45	Trichlorofluoromethane	34000	—	—
54-24238	63–65	Chloroform	58000	—	—
54-24238	63–65	Cyclohexane	69000	—	—
54-24238	63–65	Dichloroethane[1,1-]	68000	—	—
54-24238	63–65	Dichloroethane[1,2-]	72000	—	—
54-24238	63–65	Dichloroethene[1,1-]	130000	—	—
54-24238	63–65	Dichloropropane[1,2-]	510000	—	—
54-24238	63–65	Methylene Chloride	300000	—	—
54-24238	63–65	Tetrachloroethene	60000	—	—
54-24238	63–65	Tetrahydrofuran	14000	—	—
54-24238	63–65	Trichloro-1,2,2-trifluoroethane[1,1,2-]	820000	—	—
54-24238	63–65	Trichloroethane[1,1,1-]	3500000	—	—
54-24238	63–65	Trichloroethene	760000	—	—
54-24238	63–65	Trichlorofluoromethane	43000	—	—

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-24238	83–85	Benzene	ND	ND	2000
54-24238	83–85	Carbon Tetrachloride	ND	ND	6800
54-24238	83–85	Chloroform	55000	35000	46000
54-24238	83–85	Cyclohexane	60000	—	70000
54-24238	83–85	Dichlorodifluoromethane	ND	ND	3900
54-24238	83–85	Dichloroethane[1,1-]	58000	35000	49000
54-24238	83–85	Dichloroethane[1,2-]	68000	37000	61000
54-24238	83–85	Dichloroethene[1,1-]	130000	68000	57000
54-24238	83–85	Dichloropropane[1,2-]	430000	240000	320000
54-24238	83–85	Methylene Chloride	120000	ND	200000
54-24238	83–85	Tetrachloroethene	56000	ND	67000
54-24238	83–85	Tetrahydrofuran	14000	—	8000
54-24238	83–85	Trichloro-1,2,2-trifluoroethane[1,1,2-]	700000	480000	630000
54-24238	83–85	Trichloroethane[1,1,1-]	3300000	2100000	2500000
54-24238	83–85	Trichloroethene	680000	510000	660000
54-24238	83–85	Trichlorofluoromethane	42000	23000	25000
54-24239	24–26	Carbon Tetrachloride	4800	4300	ND
54-24239	24–26	Chloroform	20000	14000	ND
54-24239	24–26	Cyclohexane	12000	7400(J+)	—
54-24239	24–26	Dichlorodifluoromethane	ND	1000	ND
54-24239	24–26	Dichloroethane[1,1-]	16000	13000	9000
54-24239	24–26	Dichloroethane[1,2-]	7800	5400	2200
54-24239	24–26	Dichloroethene[1,1-]	38000	94000	12000
54-24239	24–26	Dichloropropane[1,2-]	9400	7400	ND
54-24239	24–26	Tetrachloroethene	280000	520000	270000
54-24239	24–26	Trichloro-1,2,2-trifluoroethane[1,1,2-]	94000	45000	40000
54-24239	24–26	Trichloroethane[1,1,1-]	860000	500000	360000
54-24239	24–26	Trichloroethene	220000	210000	110000
54-24239	24–26	Trichlorofluoromethane	6500	4400	ND
54-24239	74–76	Acetone	8800	—	—
54-24239	74–76	Carbon Disulfide	4400	—	—
54-24239	74–76	Carbon Tetrachloride	5300	—	—
54-24239	74–76	Chloroform	22000	—	—
54-24239	74–76	Cyclohexane	19000	—	—
54-24239	74–76	Dichloroethane[1,1-]	20000	—	—
54-24239	74–76	Dichloroethane[1,2-]	14000	—	—
54-24239	74–76	Dichloroethene[1,1-]	54000	—	—

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-24239	74–76	Dichloropropane[1,2-]	12000	—	—
54-24239	74–76	Methylene Chloride	3400	—	—
54-24239	74–76	Tetrachloroethene	220000	—	—
54-24239	74–76	Trichloro-1,2,2-trifluoroethane[1,1,2-]	110000	—	—
54-24239	74–76	Trichloroethane[1,1,1-]	1100000	—	—
54-24239	74–76	Trichloroethene	250000	—	—
54-24239	74–76	Trichlorofluoromethane	11000	—	—
54-24239	98.5–100.5	Acetone	10000	ND	—
54-24239	98.5–100.5	Benzene	ND	770	—
54-24239	98.5–100.5	Carbon Disulfide	4300	ND	—
54-24239	98.5–100.5	Carbon Tetrachloride	ND	6100	—
54-24239	98.5–100.5	Chloroform	23000	20000	—
54-24239	98.5–100.5	Cyclohexane	20000	11000(J+)	—
54-24239	98.5–100.5	Dichlorodifluoromethane	ND	1700	—
54-24239	98.5–100.5	Dichloroethane[1,1-]	22000	18000	—
54-24239	98.5–100.5	Dichloroethane[1,2-]	15000	11000	—
54-24239	98.5–100.5	Dichloroethene[1,1-]	58000	140000	—
54-24239	98.5–100.5	Dichloropropane[1,2-]	9800	11000	—
54-24239	98.5–100.5	Methylene Chloride	4200	ND	—
54-24239	98.5–100.5	Propanol[2-]	19000	ND	—
54-24239	98.5–100.5	Tetrachloroethene	220000	580000	—
54-24239	98.5–100.5	Toluene	4500	ND	—
54-24239	98.5–100.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	120000	75000	—
54-24239	98.5–100.5	Trichloroethane[1,1,1-]	1100000	770000	—
54-24239	98.5–100.5	Trichloroethene	270000	270000	—
54-24239	98.5–100.5	Trichlorofluoromethane	12000	7700	—
54-24239	109.5–111.5	Chloroform	—	—	23000
54-24239	109.5–111.5	Dichloroethane[1,1-]	—	—	19000
54-24239	109.5–111.5	Dichloroethane[1,2-]	—	—	16000
54-24239	109.5–111.5	Dichloroethene[1,1-]	—	—	40000
54-24239	109.5–111.5	Tetrachloroethene	—	—	310000
54-24239	109.5–111.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	—	150000
54-24239	109.5–111.5	Trichloroethane[1,1,1-]	—	—	1200000
54-24239	109.5–111.5	Trichloroethene	—	—	290000
54-24240	27–29	Benzene	ND	1900	ND
54-24240	27–29	Carbon Tetrachloride	ND	5600	ND
54-24240	27–29	Chloroform	ND	15000	ND

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-24240	27–29	Cyclohexane	79000	33000(J+)	—
54-24240	27–29	Dichlorodifluoromethane	65000	39000	75000
54-24240	27–29	Dichloroethane[1,1-]	110000	100000	92000
54-24240	27–29	Dichloroethane[1,2-]	310000	420000	420000
54-24240	27–29	Dichloroethene[1,1-]	77000	570000	ND
54-24240	27–29	Dichloropropane[1,2-]	ND	3200	ND
54-24240	27–29	Methylene Chloride	79000	60000	41000
54-24240	27–29	Tetrachloroethene	310000	280000	300000
54-24240	27–29	Trichloro-1,2,2-trifluoroethane[1,1,2-]	66000	79000	99000
54-24240	27–29	Trichloroethane[1,1,1-]	4900000	1600000	2000000
54-24240	27–29	Trichloroethene	740000	850000	720000
54-24240	27–29	Trichlorofluoromethane	ND	32000	48000
54-24240	52–54	Acetone	18000	—	—
54-24240	52–54	Carbon Disulfide	9900	—	—
54-24240	52–54	Chloroform	11000	—	—
54-24240	52–54	Cyclohexane	19000	—	—
54-24240	52–54	Dichlorodifluoromethane	7000	—	—
54-24240	52–54	Dichloroethane[1,1-]	31000	—	—
54-24240	52–54	Dichloroethane[1,2-]	84000	—	—
54-24240	52–54	Dichloroethene[1,1-]	54000	—	—
54-24240	52–54	Methylene Chloride	42000	—	—
54-24240	52–54	Tetrachloroethene	99000	—	—
54-24240	52–54	Trichloro-1,2,2-trifluoroethane[1,1,2-]	36000	—	—
54-24240	52–54	Trichloroethane[1,1,1-]	1300000	—	—
54-24240	52–54	Trichloroethene	280000	—	—
54-24240	102–104	Benzene	—	950	ND
54-24240	102–104	Carbon Tetrachloride	—	2300	ND
54-24240	102–104	Chloroform	—	8300	ND
54-24240	102–104	Cyclohexane	—	16000(J+)	—
54-24240	102–104	Dichlorodifluoromethane	—	5400	ND
54-24240	102–104	Dichloroethane[1,1-]	—	32000	48000
54-24240	102–104	Dichloroethane[1,2-]	—	53000	82000
54-24240	102–104	Dichloroethene[1,1-]	—	300000	28000
54-24240	102–104	Dichloropropane[1,2-]	—	4200	ND
54-24240	102–104	Hexane	—	630	—
54-24240	102–104	Methylene Chloride	—	18000	37000
54-24240	102–104	Tetrachloroethene	—	73000	140000

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-24240	102–104	Toluene	—	600	ND
54-24240	102–104	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	38000	62000
54-24240	102–104	Trichloroethane[1,1,1-]	—	760000	1600000
54-24240	102–104	Trichloroethene	—	270000	320000
54-24240	102–104	Trichlorofluoromethane	—	6200	ND
54-24240	127–129	Benzene	—	580	ND
54-24240	127–129	Carbon Tetrachloride	—	2000	ND
54-24240	127–129	Chloroform	—	5500	ND
54-24240	127–129	Cyclohexane	—	14000(J+)	—
54-24240	127–129	Dichlorodifluoromethane	—	4000	ND
54-24240	127–129	Dichloroethane[1,1-]	—	23000	37000
54-24240	127–129	Dichloroethane[1,2-]	—	24000	49000
54-24240	127–129	Dichloroethene[1,1-]	—	220000	32000
54-24240	127–129	Dichloropropane[1,2-]	—	2800	ND
54-24240	127–129	Methylene Chloride	—	4600	15000
54-24240	127–129	Tetrachloroethene	—	46000	83000
54-24240	127–129	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	33000	53000
54-24240	127–129	Trichloroethane[1,1,1-]	—	670000	1300000
54-24240	127–129	Trichloroethene	—	230000	300000
54-24240	127–129	Trichlorofluoromethane	—	5200	ND
54-24240	152–154	Acetone	22000	ND	ND
54-24240	152–154	Benzene	ND	510	ND
54-24240	152–154	Butanone[2-]	6000	ND	ND
54-24240	152–154	Carbon Disulfide	6200	ND	ND
54-24240	152–154	Carbon Tetrachloride	ND	1900	ND
54-24240	152–154	Chloroform	11000	5000	ND
54-24240	152–154	Cyclohexane	35000	12000(J+)	—
54-24240	152–154	Dichlorodifluoromethane	ND	4200	ND
54-24240	152–154	Dichloroethane[1,1-]	40000	20000	29000
54-24240	152–154	Dichloroethane[1,2-]	59000	15000	25000
54-24240	152–154	Dichloroethene[1,1-]	51000	240000	33000
54-24240	152–154	Dichloropropane[1,2-]	ND	2300	ND
54-24240	152–154	Methylene Chloride	24000	1600	ND
54-24240	152–154	Tetrachloroethene	68000	41000	71000
54-24240	152–154	Toluene	18000	ND	ND
54-24240	152–154	Trichloro-1,2,2-trifluoroethane[1,1,2-]	44000	35000	48000
54-24240	152–154	Trichloroethane[1,1,1-]	2000000	600000	1100000

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-24240	152–154	Trichloroethene	350000	210000	250000
54-24240	152–154	Trichlorofluoromethane	ND	5200	ND
54-24241	92–94	Chloroform	—	12000	31000
54-24241	92–94	Dichloroethane[1,1-]	—	9200	36000
54-24241	92–94	Dichloroethane[1,2-]	—	ND	22000
54-24241	92–94	Dichloroethene[1,1-]	—	30000	35000
54-24241	92–94	Tetrachloroethene	—	50000	130000
54-24241	92–94	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	110000	210000
54-24241	92–94	Trichloroethane[1,1,1-]	—	610000	1300000
54-24241	92–94	Trichloroethene	—	160000	290000
54-24241	112–114	Chloroform	—	12000	25000
54-24241	112–114	Dichloroethane[1,1-]	—	9700	27000
54-24241	112–114	Dichloroethane[1,2-]	—	8800	19000
54-24241	112–114	Dichloroethene[1,1-]	—	28000	35000
54-24241	112–114	Tetrachloroethene	—	54000	110000
54-24241	112–114	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	110000	170000
54-24241	112–114	Trichloroethane[1,1,1-]	—	630000	1000000
54-24241	112–114	Trichloroethene	—	150000	250000
54-24241	192–194	Chloroform	—	22000	15000
54-24241	192–194	Dichloroethane[1,1-]	—	25000	12000
54-24241	192–194	Dichloroethane[1,2-]	—	17000	8800
54-24241	192–194	Dichloroethene[1,1-]	—	31000	40000
54-24241	192–194	Methylene Chloride	—	ND	6700
54-24241	192–194	Tetrachloroethene	—	97000	70000
54-24241	192–194	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	180000	130000
54-24241	192–194	Trichloroethane[1,1,1-]	—	1300000	620000
54-24241	192–194	Trichloroethene	—	260000	170000
54-24241	192–194	Trichlorofluoromethane	—	ND	13000
54-24242	24–26	Benzene	ND	520	ND
54-24242	24–26	Carbon Tetrachloride	3800	3900	3300
54-24242	24–26	Chloroform	14000	15000	14000
54-24242	24–26	Cyclohexane	8000	9200(J+)	14000
54-24242	24–26	Dichlorodifluoromethane	ND	1400	980
54-24242	24–26	Dichloroethane[1,1-]	11000	16000	13000
54-24242	24–26	Dichloroethane[1,2-]	5000	6000	5200
54-24242	24–26	Dichloroethene[1,1-]	22000	180000	18000
54-24242	24–26	Dichloropropane[1,2-]	8100	8600	7000

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-24242	24–26	Tetrachloroethene	490000	250000	240000
54-24242	24–26	Trichloro-1,2,2-trifluoroethane[1,1,2-]	61000	77000	61000
54-24242	24–26	Trichloroethane[1,1,1-]	560000	470000	580000
54-24242	24–26	Trichloroethene	190000	190000	170000
54-24242	24–26	Trichlorofluoromethane	4100	5900	4400
54-24242	49–51	Chloroform	28000	—	—
54-24242	49–51	Cyclohexane	24000	—	—
54-24242	49–51	Dichloroethane[1,1-]	22000	—	—
54-24242	49–51	Dichloroethane[1,2-]	20000	—	—
54-24242	49–51	Dichloroethene[1,1-]	54000	—	—
54-24242	49–51	Dichloropropane[1,2-]	14000	—	—
54-24242	49–51	Methylene Chloride	14000	—	—
54-24242	49–51	Tetrachloroethene	400000	—	—
54-24242	49–51	Trichloro-1,2,2-trifluoroethane[1,1,2-]	140000	—	—
54-24242	49–51	Trichloroethane[1,1,1-]	1400000	—	—
54-24242	49–51	Trichloroethene	320000	—	—
54-24242	49–51	Trichlorofluoromethane	13000	—	—
54-24242	99–101	Benzene	—	940	800
54-24242	99–101	Carbon Tetrachloride	—	4400	3900
54-24242	99–101	Chloroform	—	18000	17000
54-24242	99–101	Cyclohexane	—	12000(J+)	21000
54-24242	99–101	Dichlorodifluoromethane	—	2000	1800
54-24242	99–101	Dichloroethane[1,1-]	—	17000	16000
54-24242	99–101	Dichloroethane[1,2-]	—	10000	10000
54-24242	99–101	Dichloroethene[1,1-]	—	220000	28000
54-24242	99–101	Dichloropropane[1,2-]	—	8700	7100
54-24242	99–101	Tetrachloroethene	—	230000	240000
54-24242	99–101	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	100000	93000
54-24242	99–101	Trichloroethane[1,1,1-]	—	620000	820000
54-24242	99–101	Trichloroethene	—	240000	230000
54-24242	99–101	Trichlorofluoromethane	—	8500	7500
54-24242	109.5–111.5	Chloroform	28000	—	—
54-24242	109.5–111.5	Cyclohexane	24000	—	—
54-24242	109.5–111.5	Dichloroethane[1,1-]	23000	—	—
54-24242	109.5–111.5	Dichloroethane[1,2-]	23000	—	—
54-24242	109.5–111.5	Dichloroethene[1,1-]	54000	—	—
54-24242	109.5–111.5	Dichloropropane[1,2-]	14000	—	—

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-24242	109.5–111.5	Methylene Chloride	11000	—	—
54-24242	109.5–111.5	Tetrachloroethene	390000	—	—
54-24242	109.5–111.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	130000	—	—
54-24242	109.5–111.5	Trichloroethane[1,1,1-]	1300000	—	—
54-24242	109.5–111.5	Trichloroethene	340000	—	—
54-24242	109.5–111.5	Trichlorofluoromethane	12000	—	—
54-24243	24–26	Carbon Tetrachloride	5100	2900	ND
54-24243	24–26	Chloroform	19000	17000	21000
54-24243	24–26	Cyclohexane	14000	11000(J+)	—
54-24243	24–26	Dichlorodifluoromethane	ND	1100	ND
54-24243	24–26	Dichloroethane[1,1-]	19000	20000	25000
54-24243	24–26	Dichloroethane[1,2-]	4400	3700	ND
54-24243	24–26	Dichloroethene[1,1-]	29000	210000	21000
54-24243	24–26	Dichloropropane[1,2-]	38000	40000	49000
54-24243	24–26	Tetrachloroethene	30000	17000	21000
54-24243	24–26	Trichloro-1,2,2-trifluoroethane[1,1,2-]	280000	240000	310000
54-24243	24–26	Trichloroethane[1,1,1-]	1000000	590000	1200000
54-24243	24–26	Trichloroethene	230000	200000	260000
54-24243	24–26	Trichlorofluoromethane	10000	8400	ND
54-24243	49–51	Chloroform	33000	—	—
54-24243	49–51	Cyclohexane	30000	—	—
54-24243	49–51	Dichloroethane[1,1-]	32000	—	—
54-24243	49–51	Dichloroethane[1,2-]	8700	—	—
54-24243	49–51	Dichloroethene[1,1-]	67000	—	—
54-24243	49–51	Dichloropropane[1,2-]	110000	—	—
54-24243	49–51	Tetrachloroethene	31000	—	—
54-24243	49–51	Trichloro-1,2,2-trifluoroethane[1,1,2-]	440000	—	—
54-24243	49–51	Trichloroethane[1,1,1-]	1700000	—	—
54-24243	49–51	Trichloroethene	400000	—	—
54-24243	49–51	Trichlorofluoromethane	20000	—	—
54-24243	74–76	Acetone	22000	—	—
54-24243	74–76	Carbon Disulfide	21000	—	—
54-24243	74–76	Chloroform	32000	—	—
54-24243	74–76	Cyclohexane	32000	—	—
54-24243	74–76	Dichloroethane[1,1-]	28000	—	—
54-24243	74–76	Dichloroethane[1,2-]	18000	—	—
54-24243	74–76	Dichloroethene[1,1-]	55000	—	—

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-24243	74–76	Dichloropropane[1,2-]	120000	—	—
54-24243	74–76	Hexane	12000	—	—
54-24243	74–76	Methylene Chloride	29000	—	—
54-24243	74–76	Propanol[2-]	19000	—	—
54-24243	74–76	Tetrachloroethene	28000	—	—
54-24243	74–76	Trichloro-1,2,2-trifluoroethane[1,1,2-]	360000	—	—
54-24243	74–76	Trichloroethane[1,1,1-]	1700000	—	—
54-24243	74–76	Trichloroethene	360000	—	—
54-24243	74–76	Trichlorofluoromethane	22000	—	—
54-24243	99–101	Benzene	—	2000	ND
54-24243	99–101	Carbon Tetrachloride	—	5200	ND
54-24243	99–101	Chloroform	—	30000	30000
54-24243	99–101	Cyclohexane	—	21000(J+)	—
54-24243	99–101	Dichlorodifluoromethane	—	2000	ND
54-24243	99–101	Dichloroethane[1,1-]	—	27000	26000
54-24243	99–101	Dichloroethane[1,2-]	—	24000	21000
54-24243	99–101	Dichloroethene[1,1-]	—	310000	60000
54-24243	99–101	Dichloropropane[1,2-]	—	110000	100000
54-24243	99–101	Methylene Chloride	—	52000	54000
54-24243	99–101	Tetrachloroethene	—	34000	23000
54-24243	99–101	Trichloro-1,2,2-trifluoroethane[1,1,2-]	—	330000	410000
54-24243	99–101	Trichloroethane[1,1,1-]	—	1100000	1600000
54-24243	99–101	Trichloroethene	—	380000	340000
54-24243	99–101	Trichlorofluoromethane	—	22000	21000
54-24243	124–126	Acetone	14000	ND	ND
54-24243	124–126	Benzene	3400	2500	ND
54-24243	124–126	Carbon Tetrachloride	ND	5900	ND
54-24243	124–126	Chloroform	34000	29000	26000
54-24243	124–126	Cyclohexane	26000	19000(J+)	—
54-24243	124–126	Dichlorodifluoromethane	ND	2200	ND
54-24243	124–126	Dichloroethane[1,1-]	20000	22000	19000
54-24243	124–126	Dichloroethane[1,2-]	34000	26000	23000
54-24243	124–126	Dichloroethene[1,1-]	70000	320000	47000
54-24243	124–126	Dichloropropane[1,2-]	60000	71000	59000
54-24243	124–126	Methylene Chloride	66000	53000	44000
54-24243	124–126	Propanol[2-]	68000	ND	—
54-24243	124–126	Tetrachloroethene	32000	35000	ND

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-24243	124–126	Toluene	4800	ND	ND
54-24243	124–126	Trichloro-1,2,2-trifluoroethane[1,1,2-]	270000	310000	300000
54-24243	124–126	Trichloroethane[1,1,1-]	1500000	980000	1400000
54-24243	124–126	Trichloroethene	330000	350000	270000
54-24243	124–126	Trichlorofluoromethane	32000	25000	ND
54-24244	24–26	Carbon Tetrachloride	3800	—	—
54-24244	24–26	Chloroform	15000	—	—
54-24244	24–26	Cyclohexane	8500	—	—
54-24244	24–26	Dichloroethane[1,1-]	7100	—	—
54-24244	24–26	Dichloroethane[1,2-]	9000	—	—
54-24244	24–26	Dichloroethene[1,1-]	20000	—	—
54-24244	24–26	Dichloropropane[1,2-]	29000	—	—
54-24244	24–26	Methylene Chloride	9000	—	—
54-24244	24–26	Tetrachloroethene	28000	—	—
54-24244	24–26	Tetrahydrofuran	8200	—	—
54-24244	24–26	Toluene	2900	—	—
54-24244	24–26	Trichloro-1,2,2-trifluoroethane[1,1,2-]	98000	—	—
54-24244	24–26	Trichloroethane[1,1,1-]	620000	—	—
54-24244	24–26	Trichloroethene	110000	—	—
54-24244	24–26	Trichlorofluoromethane	14000	—	—
54-24244	74–76	Carbon Disulfide	2300	—	—
54-24244	74–76	Chloroform	21000	—	—
54-24244	74–76	Cyclohexane	13000	—	—
54-24244	74–76	Dichloroethane[1,1-]	10000	—	—
54-24244	74–76	Dichloroethane[1,2-]	14000	—	—
54-24244	74–76	Dichloroethene[1,1-]	26000	—	—
54-24244	74–76	Dichloropropane[1,2-]	37000	—	—
54-24244	74–76	Methylene Chloride	24000	—	—
54-24244	74–76	Tetrachloroethene	18000	—	—
54-24244	74–76	Tetrahydrofuran	33000	—	—
54-24244	74–76	Toluene	3900	—	—
54-24244	74–76	Trichloro-1,2,2-trifluoroethane[1,1,2-]	120000	—	—
54-24244	74–76	Trichloroethane[1,1,1-]	760000	—	—
54-24244	74–76	Trichloroethene	120000	—	—
54-24244	74–76	Trichlorofluoromethane	22000	—	—
54-24244	99–101	Acetone	7400	—	—
54-24244	99–101	Carbon Disulfide	2200	—	—

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-24244	99–101	Chloroform	19000	—	—
54-24244	99–101	Cyclohexane	13000	—	—
54-24244	99–101	Dichloroethane[1,1-]	10000	—	—
54-24244	99–101	Dichloroethane[1,2-]	14000	—	—
54-24244	99–101	Dichloroethene[1,1-]	28000	—	—
54-24244	99–101	Dichloropropane[1,2-]	31000	—	—
54-24244	99–101	Methylene Chloride	22000	—	—
54-24244	99–101	Tetrachloroethene	16000	—	—
54-24244	99–101	Tetrahydrofuran	18000	—	—
54-24244	99–101	Toluene	4500	—	—
54-24244	99–101	Trichloro-1,2,2-trifluoroethane[1,1,2-]	130000	—	—
54-24244	99–101	Trichloroethane[1,1,1-]	730000	—	—
54-24244	99–101	Trichloroethene	120000	—	—
54-24244	99–101	Trichlorofluoromethane	26000	—	—
54-24244	117.5–119.5	Chloroform	9500	—	—
54-24244	117.5–119.5	Cyclohexane	5300	—	—
54-24244	117.5–119.5	Dichloroethane[1,1-]	4500	—	—
54-24244	117.5–119.5	Dichloroethane[1,2-]	5900	—	—
54-24244	117.5–119.5	Dichloroethene[1,1-]	13000	—	—
54-24244	117.5–119.5	Dichloropropane[1,2-]	19000	—	—
54-24244	117.5–119.5	Methylene Chloride	6000	—	—
54-24244	117.5–119.5	Tetrachloroethene	18000	—	—
54-24244	117.5–119.5	Tetrahydrofuran	6800	—	—
54-24244	117.5–119.5	Toluene	2200	—	—
54-24244	117.5–119.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	62000	—	—
54-24244	117.5–119.5	Trichloroethane[1,1,1-]	390000	—	—
54-24244	117.5–119.5	Trichloroethene	71000	—	—
54-24244	117.5–119.5	Trichlorofluoromethane	8800	—	—
54-24399	550–608	Carbon Tetrachloride	32	—	ND
54-24399	550–608	Chloroform	86	—	ND
54-24399	550–608	Cyclohexane	93	—	—
54-24399	550–608	Dichlorodifluoromethane	30	—	ND
54-24399	550–608	Dichloroethane[1,1-]	110	—	140
54-24399	550–608	Dichloroethane[1,2-]	37	—	ND
54-24399	550–608	Dichloroethene[1,1-]	290	—	230
54-24399	550–608	Dichloropropane[1,2-]	44	—	ND
54-24399	550–608	Methylene Chloride	43	—	ND

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-24399	550–608	Tetrachloroethene	500	—	490
54-24399	550–608	Trichloro-1,2,2-trifluoroethane[1,1,2-]	730	—	840
54-24399	550–608	Trichloroethane[1,1,1-]	4400	—	5200
54-24399	550–608	Trichloroethene	1100	—	1000
54-24399	550–608	Trichlorofluoromethane	62	—	ND
54-27641	30–34	Acetone	47000	ND	ND
54-27641	30–34	Benzene	ND	840	ND
54-27641	30–34	Butanone[2-]	7900	ND	ND
54-27641	30–34	Carbon Disulfide	14000	ND	ND
54-27641	30–34	Carbon Tetrachloride	ND	2700	ND
54-27641	30–34	Chloroform	ND	5500	ND
54-27641	30–34	Cyclohexane	38000	26000(J+)	—
54-27641	30–34	Dichlorodifluoromethane	9600	12000	ND
54-27641	30–34	Dichloroethane[1,1-]	81000	81000	71000
54-27641	30–34	Dichloroethane[1,2-]	84000	100000	120000
54-27641	30–34	Dichloroethene[1,1-]	34000	400000	ND
54-27641	30–34	Dichloropropane[1,2-]	ND	3300	ND
54-27641	30–34	Ethanol	15000	ND	—
54-27641	30–34	Hexane	6300	930	—
54-27641	30–34	Methylene Chloride	120000	50000	40000
54-27641	30–34	Propanol[2-]	190000	ND	—
54-27641	30–34	Tetrachloroethene	66000	160000	180000
54-27641	30–34	Toluene	11000	950	ND
54-27641	30–34	Trichloro-1,2,2-trifluoroethane[1,1,2-]	35000	51000	62000
54-27641	30–34	Trichloroethane[1,1,1-]	2100000	1200000	1600000
54-27641	30–34	Trichloroethene	290000	560000	510000
54-27641	30–34	Trichlorofluoromethane	ND	12000	ND
54-27641	80–84	Benzene	ND	810	ND
54-27641	80–84	Carbon Disulfide	8500	ND	ND
54-27641	80–84	Carbon Tetrachloride	ND	1900	ND
54-27641	80–84	Chloroform	ND	5700	ND
54-27641	80–84	Cyclohexane	27000	21000(J+)	—
54-27641	80–84	Dichlorodifluoromethane	ND	7700	ND
54-27641	80–84	Dichloroethane[1,1-]	32000	40000	49000
54-27641	80–84	Dichloroethane[1,2-]	65000	68000	83000
54-27641	80–84	Dichloroethene[1,1-]	36000	330000	ND
54-27641	80–84	Dichloropropane[1,2-]	ND	4100	ND

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-27641	80–84	Hexane	ND	1500	—
54-27641	80–84	Methylene Chloride	94000	66000	82000
54-27641	80–84	Tetrachloroethene	67000	140000	210000
54-27641	80–84	Tetrahydrofuran	ND	900	—
54-27641	80–84	Toluene	5300	2700	ND
54-27641	80–84	Trichloro-1,2,2-trifluoroethane[1,1,2-]	24000	34000	46000
54-27641	80–84	Trichloroethane[1,1,1-]	1300000	920000	1500000
54-27641	80–84	Trichloroethene	170000	240000	260000
54-27641	80–84	Trichlorofluoromethane	ND	7900	ND
54-27641	110–114	Carbon Disulfide	7300	ND	ND
54-27641	110–114	Chloroform	7000	6700	ND
54-27641	110–114	Cyclohexane	30000	19000(J+)	—
54-27641	110–114	Dichlorodifluoromethane	ND	7900	ND
54-27641	110–114	Dichloroethane[1,1-]	34000	34000	39000
54-27641	110–114	Dichloroethane[1,2-]	65000	73000	58000
54-27641	110–114	Dichloroethene[1,1-]	46000	260000	24000
54-27641	110–114	Dichloropropane[1,2-]	ND	4600	ND
54-27641	110–114	Hexane	4600	ND	—
54-27641	110–114	Methylene Chloride	81000	37000	45000
54-27641	110–114	Tetrachloroethene	42000	98000	110000
54-27641	110–114	Trichloro-1,2,2-trifluoroethane[1,1,2-]	30000	24000	39000
54-27641	110–114	Trichloroethane[1,1,1-]	1600000	1200000	1400000
54-27641	110–114	Trichloroethene	220000	260000	230000
54-27641	110–114	Trichlorofluoromethane	ND	7000	ND
54-27641	180–185	Acetone	17000	ND	—
54-27641	180–185	Carbon Disulfide	9100	ND	—
54-27641	180–185	Carbon Tetrachloride	ND	1600	—
54-27641	180–185	Chloroform	ND	3400	—
54-27641	180–185	Cyclohexane	19000	12000(J+)	—
54-27641	180–185	Dichlorodifluoromethane	5800	3700	—
54-27641	180–185	Dichloroethane[1,1-]	17000	16000	—
54-27641	180–185	Dichloroethane[1,2-]	11000	9600	—
54-27641	180–185	Dichloroethene[1,1-]	40000	210000	—
54-27641	180–185	Dichloropropane[1,2-]	ND	1600	—
54-27641	180–185	Ethanol	8000	ND	—
54-27641	180–185	Hexane	4300	ND	—
54-27641	180–185	Methylene Chloride	43000	22000	—

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-27641	180–185	Tetrachloroethene	87000	21000	—
54-27641	180–185	Toluene	3700	ND	—
54-27641	180–185	Trichloro-1,2,2-trifluoroethane[1,1,2-]	28000	27000	—
54-27641	180–185	Trichloroethane[1,1,1-]	990000	550000	—
54-27641	180–185	Trichloroethene	160000	160000	—
54-27641	180–185	Trichlorofluoromethane	6200	4600	—
54-27641	230–235	Carbon Disulfide	990	ND	ND
54-27641	230–235	Carbon Tetrachloride	ND	1100	ND
54-27641	230–235	Chloroform	1900	1500	ND
54-27641	230–235	Cyclohexane	8100	7000(J+)	—
54-27641	230–235	Dichlorodifluoromethane	4000	2900	ND
54-27641	230–235	Dichloroethane[1,1-]	6400	6200	6900
54-27641	230–235	Dichloroethane[1,2-]	1100	940	ND
54-27641	230–235	Dichloroethene[1,1-]	26000	68000	22000
54-27641	230–235	Methylene Chloride	10000	7000	8900
54-27641	230–235	Propanol[2-]	3500	ND	—
54-27641	230–235	Tetrachloroethene	7100	11000	15000
54-27641	230–235	Trichloro-1,2,2-trifluoroethane[1,1,2-]	23000	23000	25000
54-27641	230–235	Trichloroethane[1,1,1-]	420000	320000	390000
54-27641	230–235	Trichloroethene	79000	87000	82000
54-27641	230–235	Trichlorofluoromethane	4500	3500	ND
54-27641	269–273	Carbon Tetrachloride	620	820	ND
54-27641	269–273	Chloroform	560	570	ND
54-27641	269–273	Cyclohexane	2500	3200(J+)	—
54-27641	269–273	Dichlorodifluoromethane	1900	2000	ND
54-27641	269–273	Dichloroethane[1,1-]	1600	1800	ND
54-27641	269–273	Dichloroethene[1,1-]	13000	21000	15000
54-27641	269–273	Hexane	ND	130	—
54-27641	269–273	Methylene Chloride	1700	1600	2400
54-27641	269–273	Tetrachloroethene	5000	5400	6100
54-27641	269–273	Trichloro-1,2,2-trifluoroethane[1,1,2-]	14000	18000	19000
54-27641	269–273	Trichloroethane[1,1,1-]	120000	140000	140000
54-27641	269–273	Trichloroethene	31000	37000	36000
54-27641	269–273	Trichlorofluoromethane	2400	2700	ND
54-27641	330–335	Carbon Tetrachloride	170	170	ND
54-27641	330–335	Chloroform	59	44	ND
54-27641	330–335	Cyclohexane	330	210(J+)	—

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-27641	330–335	Dichlorodifluoromethane	460	460	560
54-27641	330–335	Dichloroethane[1,1-]	120	120	ND
54-27641	330–335	Dichloroethane[1,2-]	34	36	ND
54-27641	330–335	Dichloroethene[1,1-]	3000	3700	3700
54-27641	330–335	Hexane	56	ND	—
54-27641	330–335	Methylene Chloride	110	54	ND
54-27641	330–335	Tetrachloroethene	800	990	930
54-27641	330–335	Trichloro-1,2,2-trifluoroethane[1,1,2-]	5000	3400	6900
54-27641	330–335	Trichloroethane[1,1,1-]	14000	9600	16000
54-27641	330–335	Trichloroethene	4500	4400	5300
54-27641	330–335	Trichlorofluoromethane	940	760	1100
54-27642	27.5–32.5	Chloroform	31000	ND	ND
54-27642	27.5–32.5	Dichloroethane[1,1-]	33000	ND	44000
54-27642	27.5–32.5	Dichloroethane[1,2-]	12000(J+)	ND	ND
54-27642	27.5–32.5	Dichloroethene[1,1-]	81000	43000	51000
54-27642	27.5–32.5	Dichloropropane[1,2-]	89000	76000	ND
54-27642	27.5–32.5	Tetrachloroethene	46000	ND	ND
54-27642	27.5–32.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	270000	380000	400000
54-27642	27.5–32.5	Trichloroethane[1,1,1-]	2300000	3400000	3500000
54-27642	27.5–32.5	Trichloroethene	280000	250000	220000
54-27642	27.5–32.5	Trichlorofluoromethane	18000	ND	ND
54-27642	72.5–77.5	Acetone	17000	ND	ND
54-27642	72.5–77.5	Carbon Disulfide	11000	ND	ND
54-27642	72.5–77.5	Chloroform	43000	38000	31000
54-27642	72.5–77.5	Dichloroethane[1,1-]	26000	26000	23000
54-27642	72.5–77.5	Dichloroethane[1,2-]	39000(J+)	28000	21000
54-27642	72.5–77.5	Dichloroethene[1,1-]	96000	69000	57000
54-27642	72.5–77.5	Dichloropropane[1,2-]	78000	91000	80000
54-27642	72.5–77.5	Methylene Chloride	140000	24000	17000
54-27642	72.5–77.5	Tetrachloroethene	36000	52000	36000
54-27642	72.5–77.5	Tetrahydrofuran	15000	—	—
54-27642	72.5–77.5	Toluene	21000	ND	ND
54-27642	72.5–77.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	340000	390000	340000
54-27642	72.5–77.5	Trichloroethane[1,1,1-]	2000000	2100000	1600000
54-27642	72.5–77.5	Trichloroethene	350000	430000	300000
54-27642	72.5–77.5	Trichlorofluoromethane	52000	32000	27000
54-27642	113.5–118.5	Carbon Disulfide	16000	ND	ND

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-27642	113.5–118.5	Chloroform	44000	ND	ND
54-27642	113.5–118.5	Dichloroethane[1,1-]	36000	ND	39000
54-27642	113.5–118.5	Dichloroethane[1,2-]	37000(J+)	ND	ND
54-27642	113.5–118.5	Dichloroethene[1,1-]	96000	59000	62000
54-27642	113.5–118.5	Dichloropropane[1,2-]	130000	150000	130000
54-27642	113.5–118.5	Methylene Chloride	140000	ND	ND
54-27642	113.5–118.5	Tetrachloroethene	39000	ND	ND
54-27642	113.5–118.5	Tetrahydrofuran	24000	—	—
54-27642	113.5–118.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	440000	500000	510000
54-27642	113.5–118.5	Trichloroethane[1,1,1-]	2600000	2700000	2800000
54-27642	113.5–118.5	Trichloroethene	370000	430000	340000
54-27642	113.5–118.5	Trichlorofluoromethane	40000	ND	ND
54-27642	172.5–177.5	Acetone	18000	—	—
54-27642	172.5–177.5	Benzene	4900	—	—
54-27642	172.5–177.5	Butanone[2-]	3800	—	—
54-27642	172.5–177.5	Carbon Disulfide	12000	—	—
54-27642	172.5–177.5	Carbon Tetrachloride	7900	—	—
54-27642	172.5–177.5	Chloroform	35000	—	—
54-27642	172.5–177.5	Dichloroethane[1,1-]	12000	—	—
54-27642	172.5–177.5	Dichloroethane[1,2-]	19000(J+)	—	—
54-27642	172.5–177.5	Dichloroethene[1,1-]	88000	—	—
54-27642	172.5–177.5	Dichloropropane[1,2-]	33000	—	—
54-27642	172.5–177.5	Hexane	5500	—	—
54-27642	172.5–177.5	Methylene Chloride	120000	—	—
54-27642	172.5–177.5	Tetrachloroethene	25000	—	—
54-27642	172.5–177.5	Toluene	30000	—	—
54-27642	172.5–177.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	270000	—	—
54-27642	172.5–177.5	Trichloroethane[1,1,1-]	1200000	—	—
54-27642	172.5–177.5	Trichloroethene	280000	—	—
54-27642	172.5–177.5	Trichlorofluoromethane	49000	—	—
54-27642	172.5–177.5	Xylene[1,3-]+Xylene[1,4-]	5600	—	—
54-27642	232–237.5	Benzene	2700	ND	ND
54-27642	232–237.5	Carbon Tetrachloride	4700	ND	ND
54-27642	232–237.5	Chloroform	17000	19000	18000
54-27642	232–237.5	Dichlorodifluoromethane	3600	ND	ND
54-27642	232–237.5	Dichloroethane[1,1-]	5000	ND	ND
54-27642	232–237.5	Dichloroethane[1,2-]	2200	ND	ND

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-27642	232–237.5	Dichloroethene[1,1-]	71000	72000	72000
54-27642	232–237.5	Dichloropropane[1,2-]	6800	ND	ND
54-27642	232–237.5	Hexane	3400	—	—
54-27642	232–237.5	Methylene Chloride	53000	63000	59000
54-27642	232–237.5	Tetrachloroethene	10000	19000	17000
54-27642	232–237.5	Toluene	16000	18000	11000
54-27642	232–237.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	230000	250000	260000
54-27642	232–237.5	Trichloroethane[1,1,1-]	580000	690000	720000
54-27642	232–237.5	Trichloroethene	140000	210000	190000
54-27642	232–237.5	Trichlorofluoromethane	31000	29000	30000
54-27642	272–277.5	Benzene	1800	ND	ND
54-27642	272–277.5	Carbon Tetrachloride	3400	ND	ND
54-27642	272–277.5	Chloroform	7700	8700	8900
54-27642	272–277.5	Dichlorodifluoromethane	2500	ND	ND
54-27642	272–277.5	Dichloroethane[1,1-]	2000	ND	ND
54-27642	272–277.5	Dichloroethene[1,1-]	48000	48000	53000
54-27642	272–277.5	Dichloropropane[1,2-]	2100	ND	ND
54-27642	272–277.5	Hexane	2400	—	—
54-27642	272–277.5	Methylene Chloride	22000	25000	26000
54-27642	272–277.5	Tetrachloroethene	7900	9900	8500
54-27642	272–277.5	Toluene	11000	6500	4100
54-27642	272–277.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	97000	150000	170000
54-27642	272–277.5	Trichloroethane[1,1,1-]	260000	330000	360000
54-27642	272–277.5	Trichloroethene	95000	110000	110000
54-27642	272–277.5	Trichlorofluoromethane	14000	15000	19000
54-27642	335–341	Benzene	540	ND	ND
54-27642	335–341	Carbon Tetrachloride	1600	ND	ND
54-27642	335–341	Chloroform	1800	1600	ND
54-27642	335–341	Dichlorodifluoromethane	1500	ND	ND
54-27642	335–341	Dichloroethane[1,1-]	480	ND	ND
54-27642	335–341	Dichloroethene[1,1-]	21000	24000	21000
54-27642	335–341	Hexane	1400	—	—
54-27642	335–341	Methylene Chloride	4000	3400	2700
54-27642	335–341	Tetrachloroethene	2400	2600	ND
54-27642	335–341	Toluene	2400	ND	ND
54-27642	335–341	Trichloro-1,2,2-trifluoroethane[1,1,2-]	43000	ND	47000
54-27642	335–341	Trichloroethane[1,1,1-]	82000	89000	69000

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-27642	335–341	Trichloroethene	31000	35000	24000
54-27642	335–341	Trichlorofluoromethane	5600	5000	4500
54-27643	27.5–32.5	Carbon Disulfide	2000	ND	ND
54-27643	27.5–32.5	Carbon Tetrachloride	1700	3100	ND
54-27643	27.5–32.5	Chloroform	8600	13000	8600
54-27643	27.5–32.5	Cyclohexane	5800	5100(J+)	—
54-27643	27.5–32.5	Dichlorodifluoromethane	ND	800	ND
54-27643	27.5–32.5	Dichloroethane[1,1-]	4200	6000	4400
54-27643	27.5–32.5	Dichloroethane[1,2-]	2900	5200	ND
54-27643	27.5–32.5	Dichloroethene[1,1-]	9900	100000	ND
54-27643	27.5–32.5	Dichloropropane[1,2-]	15000	25000	20000
54-27643	27.5–32.5	Methylene Chloride	1900	410	ND
54-27643	27.5–32.5	Propanol[2-]	2800	ND	—
54-27643	27.5–32.5	Tetrachloroethene	11000	28000	15000
54-27643	27.5–32.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	53000	54000	ND
54-27643	27.5–32.5	Trichloroethane[1,1,1-]	320000	340000	370000
54-27643	27.5–32.5	Trichloroethene	55000	93000	ND
54-27643	27.5–32.5	Trichlorofluoromethane	8500	10000	ND
54-27643	71.5–76.5	Benzene	ND	1100	ND
54-27643	71.5–76.5	Carbon Disulfide	1700	ND	ND
54-27643	71.5–76.5	Carbon Tetrachloride	ND	4300	ND
54-27643	71.5–76.5	Chlorobenzene	ND	980	ND
54-27643	71.5–76.5	Chloroform	14000	19000	14000
54-27643	71.5–76.5	Cyclohexane	ND	7000(J+)	—
54-27643	71.5–76.5	Dichlorodifluoromethane	ND	1200	ND
54-27643	71.5–76.5	Dichloroethane[1,1-]	6800	7900	ND
54-27643	71.5–76.5	Dichloroethane[1,2-]	7800	13000	9000
54-27643	71.5–76.5	Dichloroethene[1,1-]	21000	130000	ND
54-27643	71.5–76.5	Dichloropropane[1,2-]	23000	32000	29000
54-27643	71.5–76.5	Methylene Chloride	16000	10000	ND
54-27643	71.5–76.5	Tetrachloroethene	14000	30000	20000
54-27643	71.5–76.5	Tetrahydrofuran	12000	20000	—
54-27643	71.5–76.5	Toluene	2000	1900	ND
54-27643	71.5–76.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	93000	78000	ND
54-27643	71.5–76.5	Trichloroethane[1,1,1-]	500000	470000	530000
54-27643	71.5–76.5	Trichloroethene	87000	130000	98000
54-27643	71.5–76.5	Trichlorofluoromethane	15000	18000	ND

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-27643	71.5–76.5	Xylene[1,2-]	ND	1800	ND
54-27643	114.5–119.5	Benzene	1500	1800	ND
54-27643	114.5–119.5	Carbon Disulfide	1200	ND	ND
54-27643	114.5–119.5	Carbon Tetrachloride	2700	4400	ND
54-27643	114.5–119.5	Chlorobenzene	ND	1100	ND
54-27643	114.5–119.5	Chloroform	17000	22000	17000
54-27643	114.5–119.5	Cyclohexane	ND	7200(J+)	—
54-27643	114.5–119.5	Dichlorodifluoromethane	ND	1700	ND
54-27643	114.5–119.5	Dichloroethane[1,1-]	6900	7900	ND
54-27643	114.5–119.5	Dichloroethane[1,2-]	11000	16000	11000
54-27643	114.5–119.5	Dichloroethene[1,1-]	26000	140000	ND
54-27643	114.5–119.5	Dichloropropane[1,2-]	22000	30000	25000
54-27643	114.5–119.5	Hexane	ND	520	—
54-27643	114.5–119.5	Methylene Chloride	34000	26000	22000
54-27643	114.5–119.5	Tetrachloroethene	13000	28000	18000
54-27643	114.5–119.5	Tetrahydrofuran	2800	2100	—
54-27643	114.5–119.5	Toluene	6100	6000	ND
54-27643	114.5–119.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	120000	98000	ND
54-27643	114.5–119.5	Trichloroethane[1,1,1-]	570000	500000	580000
54-27643	114.5–119.5	Trichloroethene	100000	150000	120000
54-27643	114.5–119.5	Trichlorofluoromethane	21000	23000	ND
54-27643	114.5–119.5	Xylene[1,2-]	ND	2500	ND
54-27643	164–170	Benzene	1900	—	—
54-27643	164–170	Carbon Disulfide	1300	—	—
54-27643	164–170	Carbon Tetrachloride	2400	—	—
54-27643	164–170	Chloroform	16000	—	—
54-27643	164–170	Dichlorodifluoromethane	2000	—	—
54-27643	164–170	Dichloroethane[1,1-]	5000	—	—
54-27643	164–170	Dichloroethane[1,2-]	6800	—	—
54-27643	164–170	Dichloroethene[1,1-]	35000	—	—
54-27643	164–170	Dichloropropane[1,2-]	13000	—	—
54-27643	164–170	Hexane	1200	—	—
54-27643	164–170	Methylene Chloride	46000	—	—
54-27643	164–170	Tetrachloroethene	8200	—	—
54-27643	164–170	Toluene	9700	—	—
54-27643	164–170	Trichloro-1,2,2-trifluoroethane[1,1,2-]	140000	—	—
54-27643	164–170	Trichloroethane[1,1,1-]	450000	—	—

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m³)	1QFY08 Result (µg/m³)	2QFY08 Result (µg/m³)
54-27643	164–170	Trichloroethene	91000	—	—
54-27643	164–170	Trichlorofluoromethane	22000	—	—
54-27643	232.5–237.5	Benzene	1900	2700	ND
54-27643	232.5–237.5	Carbon Disulfide	1300	ND	ND
54-27643	232.5–237.5	Carbon Tetrachloride	3200	4700	ND
54-27643	232.5–237.5	Chloroform	13000	16000	12000
54-27643	232.5–237.5	Cyclohexane	ND	5300(J+)	—
54-27643	232.5–237.5	Dichlorodifluoromethane	2200	3000	ND
54-27643	232.5–237.5	Dichloroethane[1,1-]	3200	3600	ND
54-27643	232.5–237.5	Dichloroethane[1,2-]	1700	2700	ND
54-27643	232.5–237.5	Dichloroethene[1,1-]	41000	91000	ND
54-27643	232.5–237.5	Dichloropropane[1,2-]	5000	7400	ND
54-27643	232.5–237.5	Hexane	1900	2200	—
54-27643	232.5–237.5	Methylene Chloride	39000	37000	31000
54-27643	232.5–237.5	Tetrachloroethene	6200	16000	9500
54-27643	232.5–237.5	Toluene	10000	9100	4700
54-27643	232.5–237.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	150000	120000	ND
54-27643	232.5–237.5	Trichloroethane[1,1,1-]	340000	360000	350000
54-27643	232.5–237.5	Trichloroethene	84000	140000	99000
54-27643	232.5–237.5	Trichlorofluoromethane	19000	22000	16000
54-27643	272.5–278.5	Benzene	1800	1800	1300
54-27643	272.5–278.5	Carbon Tetrachloride	2700	3800	3000
54-27643	272.5–278.5	Chloroform	8000	9900	9700
54-27643	272.5–278.5	Cyclohexane	4200	3100(J+)	—
54-27643	272.5–278.5	Dichlorodifluoromethane	1800	2700	ND
54-27643	272.5–278.5	Dichloroethane[1,1-]	1800	2100	2300
54-27643	272.5–278.5	Dichloroethane[1,2-]	ND	490	340
54-27643	272.5–278.5	Dichloroethene[1,1-]	34000	88000	ND
54-27643	272.5–278.5	Dichloropropane[1,2-]	2100	2400	2300
54-27643	272.5–278.5	Hexane	1600	2200	—
54-27643	272.5–278.5	Methylene Chloride	19000	22000	17000
54-27643	272.5–278.5	Tetrachloroethene	9400	11000	8200
54-27643	272.5–278.5	Toluene	13000	4600	2800
54-27643	272.5–278.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	100000	96000	ND
54-27643	272.5–278.5	Trichloroethane[1,1,1-]	230000	190000	ND
54-27643	272.5–278.5	Trichloroethene	81000	99000	ND
54-27643	272.5–278.5	Trichlorofluoromethane	12000	17000	ND

Table 5.0-1 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (µg/m^3)	1QFY08 Result (µg/m^3)	2QFY08 Result (µg/m^3)
54-27643	272.5–278.5	Xylene[1,3-]+Xylene[1,4-]	1100	ND	—
54-27643	351–356.5	Benzene	390	480	ND
54-27643	351–356.5	Carbon Tetrachloride	1100	1800	ND
54-27643	351–356.5	Chloroform	820	1400	ND
54-27643	351–356.5	Cyclohexane	ND	1100(J+)	—
54-27643	351–356.5	Dichlorodifluoromethane	1000	1500	ND
54-27643	351–356.5	Dichloroethane[1,1-]	200	320	ND
54-27643	351–356.5	Dichloroethene[1,1-]	14000	21000	ND
54-27643	351–356.5	Dichloropropane[1,2-]	ND	87	ND
54-27643	351–356.5	Hexane	1000	1200	—
54-27643	351–356.5	Methylene Chloride	1400	2200	ND
54-27643	351–356.5	n-Heptane	150	ND	—
54-27643	351–356.5	Tetrachloroethene	1400	2700	ND
54-27643	351–356.5	Toluene	1200	530	ND
54-27643	351–356.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	35000	34000	ND
54-27643	351–356.5	Trichloroethane[1,1,1-]	45000	62000	ND
54-27643	351–356.5	Trichloroethene	16000	25000	ND
54-27643	351–356.5	Trichlorofluoromethane	3700	5400	ND

Note: Units are µg/m^3.

[a] — = The analysis was not requested.

[b] ND = The analyte was not detected.

Table 5.0-2
Detected Tritium Sampling Results at MDA L

Location ID	Depth (ft)	Analyte	FY07 Result (pCi/L)	1QFY08 Result (pCi/L)	2QFY08 Result (pCi/L)
54-02001	40–40	Tritium	—[a]	—	4132.55
54-02001	100–100	Tritium	—	—	1302.22
54-02001	140–140	Tritium	—	—	603.045
54-02001	200–200	Tritium	—	—	900.084
54-02002	40–40	Tritium	—	—	227.681
54-02002	100–100	Tritium	—	—	246.634
54-02002	120–120	Tritium	—	—	144.783
54-02002	200–200	Tritium	—	—	66.974
54-02016	82–82	Tritium	—	—	621.945
54-02021	198–198	Tritium	—	—	627.557
54-02022	40–40	Tritium	—	—	871.445
54-02022	100–100	Tritium	—	—	10020.6
54-02022	120–120	Tritium	—	—	6492.63
54-02022	200–200	Tritium	—	—	8614.2
54-02024	40–40	Tritium	—	—	1067.43
54-02024	100–100	Tritium	—	—	736.998
54-02024	120–120	Tritium	—	—	2421.45
54-02024	200–200	Tritium	—	—	828.911
54-02025	100–100	Tritium	—	—	302.871
54-02025	190–190	Tritium	—	—	297.279
54-02026	20–20	Tritium	—	—	227.429
54-02027	20–20	Tritium	—	—	1185.83
54-02028	20–20	Tritium	—	—	216.755
54-02031	100–100	Tritium	—	—	576.48
54-02089	28.5–33.5	Tritium	—	—	5045.93
54-02089	83.5–88.5	Tritium	—	—	12550.9
54-24238	83–85	Tritium	—	—	30560
54-24239	109.5–111.5	Tritium	—	—	545.82
54-24240	27–29	Tritium	—	—	2479.97
54-24240	102–104	Tritium	—	—	828.975
54-24240	152–154	Tritium	—	—	1734.37
54-24241	92–94	Tritium	—	—	1333.29
54-24241	112–114	Tritium	—	—	713.786
54-24241	192–194	Tritium	—	—	1416.14
54-24242	24–26	Tritium	—	—	523.42
54-24243	24–26	Tritium	—	—	678.684
54-24243	99–101	Tritium	—	—	64727.5

Table 5.0-2 (continued)

Location ID	Depth (ft)	Analyte	FY07 Result (pCi/L)	1QFY08 Result (pCi/L)	2QFY08 Result (pCi/L)
54-24243	124–126	Tritium	—	—	5560.36
54-27641	30–34	Tritium	18200	3773.28	1033.9
54-27641	80–84	Tritium	10980	906.295	6436.52
54-27641	110–114	Tritium	ND[b]	1754.44	4546.47
54-27641	230–235	Tritium	ND	6527.27	ND
54-27641	269–273	Tritium	ND	172893	ND
54-27641	330–335	Tritium	4170	11545.2	1609.49
54-27642	27.5–32.5	Tritium	1320	11415.2	506.88
54-27642	72.5–77.5	Tritium	4960	ND	2872.2
54-27642	113.5–118.5	Tritium	8420	2562.98	8314.39
54-27642	175–175	Tritium	570	—	1225.4
54-27642	232–237.5	Tritium	1340	12278.2	825.183
54-27642	272–277.5	Tritium	370	13496.6	450.597
54-27642	335–341	Tritium	ND	1382.13	ND
54-27643	27.5–32.5	Tritium	ND	1371.73	ND
54-27643	71.5–76.5	Tritium	470	2677.47	418.113
54-27643	114.5–119.5	Tritium	510	623	985.217
54-27643	164–170	Tritium	540	—	—
54-27643	232.5–237.5	Tritium	440	2776.15	750.247
54-27643	272.5–278.5	Tritium	510	1577.05	ND
54-27643	351–356.5	Tritium	630	1861.13	ND

Note: Units are pCi/L.

[a] — = The analysis was not requested.

[b] ND = The analyte was not detected.

Table 5.4-1
Comparison of Detected Pore-Gas Concentrations to Screening Concentrations at MDA L

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02001	40–40	Carbon Tetrachloride	1700	1.25	5	0.272	6250
54-02001	40–40	Chloroform	4500	0.15	1.65	18.2	247.5
54-02001	40–40	Cyclohexane	36000	8.2	13000	0.000338	1.07E+08
54-02001	40–40	Dichlorodifluoromethane	14000	4.1	390	0.00876	1599000
54-02001	40–40	Dichloroethane[1,1-]	46000	0.23	1220	0.164	280600
54-02001	40–40	Dichloroethane[1,2-]	72000	0.0401	5	359	200.5
54-02001	40–40	Dichloroethene[1,1-]	10000	1.1	5	1.82	5500
54-02001	40–40	Dichloropropane[1,2-]	2300	0.11	5	4.18	550
54-02001	40–40	Methylene Chloride	51000	0.09	5	113	450
54-02001	40–40	Tetrachloroethene	150000	0.754	5	39.8	3770
54-02001	40–40	Toluene	1100	0.272	750	0.00539	204000
54-02001	40–40	Trichloro-1,2,2-trifluoroethane[1,1,2-]	36000	21.4	59000	0.0000285	1.26E+09
54-02001	40–40	Trichloroethane[1,1,1-]	1300000	0.705	60	30.7	42300
54-02001	40–40	Trichloroethene	360000	0.422	5	171	2110
54-02001	40–40	Trichlorofluoromethane	10000	4	1300	0.00192	5200000
54-02001	100–100	Chloroform	4500	0.15	1.65	18.2	247.5
54-02001	100–100	Cyclohexane	33000	8.2	13000	0.00031	1.07E+08
54-02001	100–100	Dichlorodifluoromethane	6500	4.1	390	0.00407	1599000
54-02001	100–100	Dichloroethane[1,1-]	31000	0.23	1220	0.11	280600
54-02001	100–100	Dichloroethane[1,2-]	52000	0.0401	5	259	200.5
54-02001	100–100	Dichloroethene[1,1-]	13000	1.1	5	2.36	5500
54-02001	100–100	Dichloropropane[1,2-]	2800	0.11	5	5.09	550
54-02001	100–100	Methylene Chloride	46000	0.09	5	102	450
54-02001	100–100	Tetrachloroethene	98000	0.754	5	26	3770
54-02001	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	23000	21.4	59000	0.0000182	1.26E+09
54-02001	100–100	Trichloroethane[1,1,1-]	1200000	0.705	60	28.4	42300

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02001	100–100	Trichloroethene	200000	0.422	5	94.8	2110
54-02001	100–100	Trichlorofluoromethane	5800	4	1300	0.00112	5200000
54-02001	120–120	Chloroform	4600	0.15	1.65	18.6	247.5
54-02001	120–120	Cyclohexane	24000	8.2	13000	0.000225	1.07E+08
54-02001	120–120	Dichlorodifluoromethane	3400	4.1	390	0.00213	1599000
54-02001	120–120	Dichloroethane[1,1-]	25000	0.23	1220	0.0891	280600
54-02001	120–120	Dichloroethane[1,2-]	36000	0.0401	5	180	200.5
54-02001	120–120	Dichloroethene[1,1-]	16000	1.1	5	2.91	5500
54-02001	120–120	Dichloropropane[1,2-]	3800	0.11	5	6.91	550
54-02001	120–120	Methylene Chloride	36000	0.09	5	80	450
54-02001	120–120	Propylene	3600	na*	na	na	na
54-02001	120–120	Tetrachloroethene	50000	0.754	5	13.3	3770
54-02001	120–120	Trichloro-1,2,2-trifluoroethane[1,1,2-]	20000	21.4	59000	0.0000158	1.26E+09
54-02001	120–120	Trichloroethane[1,1,1-]	810000	0.705	60	19.1	42300
54-02001	120–120	Trichloroethene	200000	0.422	5	94.8	2110
54-02001	200–200	Carbon Tetrachloride	780	1.25	5	0.125	6250
54-02001	200–200	Chloroform	1500	0.15	1.65	6.06	247.5
54-02001	200–200	Cyclohexane	12000	8.2	13000	0.000113	1.07E+08
54-02001	200–200	Dichlorodifluoromethane	2200	4.1	390	0.00138	1599000
54-02001	200–200	Dichloroethane[1,1-]	7500	0.23	1220	0.0267	280600
54-02001	200–200	Dichloroethane[1,2-]	3300	0.0401	5	16.5	200.5
54-02001	200–200	Dichloroethene[1,1-]	13000	1.1	5	2.36	5500
54-02001	200–200	Dichloropropane[1,2-]	460	0.11	5	0.836	550
54-02001	200–200	Methylene Chloride	8300	0.09	5	18.4	450
54-02001	200–200	Tetrachloroethene	11000	0.754	5	2.92	3770
54-02001	200–200	Trichloro-1,2,2-trifluoroethane[1,1,2-]	13000	21.4	59000	0.0000103	1.26E+09

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02001	200–200	Trichloroethane[1,1,1-]	440000	0.705	60	10.4	42300
54-02001	200–200	Trichloroethene	90000	0.422	5	42.7	2110
54-02001	200–200	Trichlorofluoromethane	2400	4	1300	0.000462	5200000
54-02002	60–60	Dichloroethane[1,1-]	22000	0.23	1220	0.0784	280600
54-02002	60–60	Dichloroethene[1,1-]	29000	1.1	5	5.27	5500
54-02002	60–60	Dichloropropane[1,2-]	47000	0.11	5	85.5	550
54-02002	60–60	Trichloro-1,2,2-trifluoroethane[1,1,2-]	290000	21.4	59000	0.00023	1.26E+09
54-02002	60–60	Trichloroethane[1,1,1-]	1600000	0.705	60	37.8	42300
54-02002	60–60	Trichloroethene	230000	0.422	5	109	2110
54-02002	100–100	Chloroform	27000	0.15	1.65	109	247.5
54-02002	100–100	Dichloroethene[1,1-]	39000	1.1	5	7.09	5500
54-02002	100–100	Dichloropropane[1,2-]	55000	0.11	5	100	550
54-02002	100–100	Methylene Chloride	59000	0.09	5	131	450
54-02002	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	310000	21.4	59000	0.000246	1.26E+09
54-02002	100–100	Trichloroethane[1,1,1-]	1500000	0.705	60	35.5	42300
54-02002	100–100	Trichloroethene	260000	0.422	5	123	2110
54-02002	120–120	Chloroform	25000	0.15	1.65	101	247.5
54-02002	120–120	Dichloroethane[1,2-]	18000	0.0401	5	89.8	200.5
54-02002	120–120	Dichloroethene[1,1-]	40000	1.1	5	7.27	5500
54-02002	120–120	Dichloropropane[1,2-]	42000	0.11	5	76.4	550
54-02002	120–120	Methylene Chloride	60000	0.09	5	133	450
54-02002	120–120	Trichloro-1,2,2-trifluoroethane[1,1,2-]	270000	21.4	59000	0.000214	1.26E+09
54-02002	120–120	Trichloroethane[1,1,1-]	1200000	0.705	60	28.4	42300
54-02002	120–120	Trichloroethene	240000	0.422	5	114	2110
54-02002	200–200	Chloroform	25000	0.15	1.65	101	247.5
54-02002	200–200	Dichloroethane[1,1-]	8300	0.23	1220	0.0296	280600

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02002	200–200	Dichloroethane[1,2-]	8600	0.0401	5	42.9	200.5
54-02002	200–200	Dichloroethene[1,1-]	61000	1.1	5	11.1	5500
54-02002	200–200	Dichloropropane[1,2-]	17000	0.11	5	30.9	550
54-02002	200–200	Methylene Chloride	66000	0.09	5	147	450
54-02002	200–200	Tetrachloroethene	20000	0.754	5	5.31	3770
54-02002	200–200	Trichloro-1,2,2-trifluoroethane[1,1,2-]	260000	21.4	59000	0.000206	1.26E+09
54-02002	200–200	Trichloroethane[1,1,1-]	910000	0.705	60	21.5	42300
54-02002	200–200	Trichloroethene	200000	0.422	5	94.8	2110
54-02002	200–200	Trichlorofluoromethane	32000	4	1300	0.00615	5200000
54-02016	31–31	Carbon Tetrachloride	3000	1.25	5	0.48	6250
54-02016	31–31	Chloroform	16000	0.15	1.65	64.6	247.5
54-02016	31–31	Cyclohexane	37000	8.2	13000	0.000347	1.07E+08
54-02016	31–31	Dichloroethane[1,1-]	25000	0.23	1220	0.0891	280600
54-02016	31–31	Dichloroethane[1,2-]	79000	0.0401	5	394	200.5
54-02016	31–31	Dichloroethene[1,1-]	29000	1.1	5	5.27	5500
54-02016	31–31	Dichloropropane[1,2-]	42000	0.11	5	76.4	550
54-02016	31–31	Methylene Chloride	3000	0.09	5	6.67	450
54-02016	31–31	Tetrachloroethene	30000	0.754	5	7.96	3770
54-02016	31–31	Trichloro-1,2,2-trifluoroethane[1,1,2-]	390000	21.4	59000	0.000309	1.26E+09
54-02016	31–31	Trichloroethane[1,1,1-]	1400000	0.705	60	33.1	42300
54-02016	31–31	Trichloroethene	290000	0.422	5	137	2110
54-02016	31–31	Trichlorofluoromethane	9900	4	1300	0.0019	5200000
54-02021	60–60	Chloroform	850	0.15	1.65	3.43	247.5
54-02021	60–60	Dichlorodifluoromethane	840	4.1	390	0.000525	1599000
54-02021	60–60	Dichloroethane[1,1-]	4600	0.23	1220	0.0164	280600
54-02021	60–60	Dichloroethane[1,2-]	4700	0.0401	5	23.4	200.5

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02021	60–60	Dichloroethene[1,1-]	5900	1.1	5	1.07	5500
54-02021	60–60	Methylene Chloride	780	0.09	5	1.73	450
54-02021	60–60	Tetrachloroethene	4300	0.754	5	1.14	3770
54-02021	60–60	Trichloro-1,2,2-trifluoroethane[1,1,2-]	4700	21.4	59000	0.00000372	1.26E+09
54-02021	60–60	Trichloroethane[1,1,1-]	220000	0.705	60	5.2	42300
54-02021	60–60	Trichloroethene	37000	0.422	5	17.5	2110
54-02021	100–100	Chloroform	1200	0.15	1.65	4.85	247.5
54-02021	100–100	Dichlorodifluoromethane	1100	4.1	390	0.000688	1599000
54-02021	100–100	Dichloroethane[1,1-]	5500	0.23	1220	0.0196	280600
54-02021	100–100	Dichloroethane[1,2-]	7600	0.0401	5	37.9	200.5
54-02021	100–100	Dichloroethene[1,1-]	8100	1.1	5	1.47	5500
54-02021	100–100	Dichloropropane[1,2-]	980	0.11	5	1.78	550
54-02021	100–100	Methylene Chloride	3200	0.09	5	7.11	450
54-02021	100–100	Tetrachloroethene	6500	0.754	5	1.72	3770
54-02021	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	6400	21.4	59000	0.00000507	1.26E+09
54-02021	100–100	Trichloroethane[1,1,1-]	330000	0.705	60	7.8	42300
54-02021	100–100	Trichloroethene	54000	0.422	5	25.6	2110
54-02021	100–100	Trichlorofluoromethane	1200	4	1300	0.000231	5200000
54-02021	140–140	Chloroform	1300	0.15	1.65	5.25	247.5
54-02021	140–140	Dichlorodifluoromethane	1500	4.1	390	0.000938	1599000
54-02021	140–140	Dichloroethane[1,1-]	5500	0.23	1220	0.0196	280600
54-02021	140–140	Dichloroethane[1,2-]	6000	0.0401	5	29.9	200.5
54-02021	140–140	Dichloroethene[1,1-]	9400	1.1	5	1.71	5500
54-02021	140–140	Methylene Chloride	4000	0.09	5	8.89	450
54-02021	140–140	Tetrachloroethene	6100	0.754	5	1.62	3770
54-02021	140–140	Trichloro-1,2,2-trifluoroethane[1,1,2-]	8100	21.4	59000	0.00000642	1.26E+09

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02021	140–140	Trichloroethane[1,1,1-]	350000	0.705	60	8.27	42300
54-02021	140–140	Trichloroethene	58000	0.422	5	27.5	2110
54-02021	140–140	Trichlorofluoromethane	1700	4	1300	0.000327	5200000
54-02021	198–198	Chloroform	930	0.15	1.65	3.76	247.5
54-02021	198–198	Dichlorodifluoromethane	1600	4.1	390	0.001	1599000
54-02021	198–198	Dichloroethane[1,1-]	3700	0.23	1220	0.0132	280600
54-02021	198–198	Dichloroethane[1,2-]	1700	0.0401	5	8.48	200.5
54-02021	198–198	Dichloroethene[1,1-]	9100	1.1	5	1.65	5500
54-02021	198–198	Methylene Chloride	3700	0.09	5	8.22	450
54-02021	198–198	Tetrachloroethene	4700	0.754	5	1.25	3770
54-02021	198–198	Trichloro-1,2,2-trifluoroethane[1,1,2-]	8800	21.4	59000	0.00000697	1.26E+09
54-02021	198–198	Trichloroethane[1,1,1-]	230000	0.705	60	5.44	42300
54-02021	198–198	Trichloroethene	46000	0.422	5	21.8	2110
54-02021	198–198	Trichlorofluoromethane	1700	4	1300	0.000327	5200000
54-02022	40–40	Chloroform	590	0.15	1.65	2.38	247.5
54-02022	40–40	Cyclohexane	4400	8.2	13000	0.0000413	1.07E+08
54-02022	40–40	Dichlorodifluoromethane	540	4.1	390	0.000338	1599000
54-02022	40–40	Dichloroethane[1,1-]	3700	0.23	1220	0.0132	280600
54-02022	40–40	Dichloroethane[1,2-]	3900	0.0401	5	19.5	200.5
54-02022	40–40	Dichloroethene[1,1-]	2300	1.1	5	0.418	5500
54-02022	40–40	Dichloropropane[1,2-]	520	0.11	5	0.945	550
54-02022	40–40	Methylene Chloride	220	0.09	5	0.489	450
54-02022	40–40	Tetrachloroethene	5700	0.754	5	1.51	3770
54-02022	40–40	Trichloro-1,2,2-trifluoroethane[1,1,2-]	2600	21.4	59000	0.00000206	1.26E+09
54-02022	40–40	Trichloroethane[1,1,1-]	180000	0.705	60	4.26	42300
54-02022	40–40	Trichloroethene	29000	0.422	5	13.7	2110

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02022	120–120	Chloroform	1700	0.15	1.65	6.87	247.5
54-02022	120–120	Cyclohexane	14000	8.2	13000	0.000131	1.07E+08
54-02022	120–120	Dichlorodifluoromethane	1700	4.1	390	0.00106	1599000
54-02022	120–120	Dichloroethane[1,1-]	8800	0.23	1220	0.0314	280600
54-02022	120–120	Dichloroethane[1,2-]	9400	0.0401	5	46.9	200.5
54-02022	120–120	Dichloroethene[1,1-]	8900	1.1	5	1.62	5500
54-02022	120–120	Dichloropropane[1,2-]	1200	0.11	5	2.18	550
54-02022	120–120	Methylene Chloride	4100	0.09	5	9.11	450
54-02022	120–120	Tetrachloroethene	9800	0.754	5	2.6	3770
54-02022	120–120	Trichloro-1,2,2-trifluoroethane[1,1,2-]	7200	21.4	59000	0.0000057	1.26E+09
54-02022	120–120	Trichloroethane[1,1,1-]	560000	0.705	60	13.2	42300
54-02022	120–120	Trichloroethene	85000	0.422	5	40.3	2110
54-02022	200–200	Carbon Tetrachloride	420	1.25	5	0.0672	6250
54-02022	200–200	Chloroform	740	0.15	1.65	2.99	247.5
54-02022	200–200	Cyclohexane	6800	8.2	13000	0.0000638	1.07E+08
54-02022	200–200	Dichlorodifluoromethane	1600	4.1	390	0.001	1599000
54-02022	200–200	Dichloroethane[1,1-]	3300	0.23	1220	0.0118	280600
54-02022	200–200	Dichloroethane[1,2-]	600	0.0401	5	2.99	200.5
54-02022	200–200	Dichloroethene[1,1-]	10000	1.1	5	1.82	5500
54-02022	200–200	Methylene Chloride	3600	0.09	5	8	450
54-02022	200–200	Tetrachloroethene	4100	0.754	5	1.09	3770
54-02022	200–200	Trichloro-1,2,2-trifluoroethane[1,1,2-]	7600	21.4	59000	0.00000602	1.26E+09
54-02022	200–200	Trichloroethane[1,1,1-]	250000	0.705	60	5.91	42300
54-02022	200–200	Trichloroethene	46000	0.422	5	21.8	2110
54-02022	200–200	Trichlorofluoromethane	1900	4	1300	0.000365	5200000
54-02023	40–40	Chloroform	1600	0.15	1.65	6.46	247.5

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02023	40–40	Dichloroethane[1,1-]	510	0.23	1220	0.00182	280600
54-02023	40–40	Dichloroethene[1,1-]	3000	1.1	5	0.545	5500
54-02023	40–40	Tetrachloroethene	1400	0.754	5	0.371	3770
54-02023	40–40	Trichloro-1,2,2-trifluoroethane[1,1,2-]	16000	21.4	59000	0.0000127	1.26E+09
54-02023	40–40	Trichloroethane[1,1,1-]	58000	0.705	60	1.37	42300
54-02023	40–40	Trichloroethene	14000	0.422	5	6.64	2110
54-02023	40–40	Trichlorofluoromethane	2000	4	1300	0.000385	5200000
54-02023	100–100	Chloroform	2200	0.15	1.65	8.89	247.5
54-02023	100–100	Dichloroethene[1,1-]	5000	1.1	5	0.909	5500
54-02023	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	25000	21.4	59000	0.0000198	1.26E+09
54-02023	100–100	Trichloroethane[1,1,1-]	87000	0.705	60	2.06	42300
54-02023	100–100	Trichloroethene	20000	0.422	5	9.48	2110
54-02023	100–100	Trichlorofluoromethane	2800	4	1300	0.000538	5200000
54-02023	120–120	Benzene	170	0.228	5	0.149	1140
54-02023	120–120	Carbon Tetrachloride	640	1.25	5	0.102	6250
54-02023	120–120	Chloroform	2400	0.15	1.65	9.7	247.5
54-02023	120–120	Dichlorodifluoromethane	620	4.1	390	0.000388	1599000
54-02023	120–120	Dichloroethane[1,1-]	1200	0.23	1220	0.00428	280600
54-02023	120–120	Dichloroethane[1,2-]	200	0.0401	5	0.998	200.5
54-02023	120–120	Dichloroethene[1,1-]	5600	1.1	5	1.02	5500
54-02023	120–120	Dichloropropane[1,2-]	720	0.11	5	1.31	550
54-02023	120–120	Methylene Chloride	600	0.09	5	1.33	450
54-02023	120–120	Tetrachloroethene	2700	0.754	5	0.716	3770
54-02023	120–120	Toluene	110	0.272	750	0.000539	204000
54-02023	120–120	Trichloro-1,2,2-trifluoroethane[1,1,2-]	27000	21.4	59000	0.0000214	1.26E+09
54-02023	120–120	Trichloroethane[1,1,1-]	91000	0.705	60	2.15	42300

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02023	120–120	Trichloroethene	23000	0.422	5	10.9	2110
54-02023	120–120	Trichlorofluoromethane	3400	4	1300	0.000654	5200000
54-02023	200–200	Chloroform	2100	0.15	1.65	8.48	247.5
54-02023	200–200	Dichloroethene[1,1-]	8600	1.1	5	1.56	5500
54-02023	200–200	Methylene Chloride	1200	0.09	5	2.67	450
54-02023	200–200	Trichloro-1,2,2-trifluoroethane[1,1,2-]	39000	21.4	59000	0.0000309	1.26E+09
54-02023	200–200	Trichloroethane[1,1,1-]	94000	0.705	60	2.22	42300
54-02023	200–200	Trichloroethene	25000	0.422	5	11.8	2110
54-02023	200–200	Trichlorofluoromethane	4000	4	1300	0.000769	5200000
54-02024	40–40	Chloroform	1800	0.15	1.65	7.27	247.5
54-02024	40–40	Dichloroethene[1,1-]	2700	1.1	5	0.491	5500
54-02024	40–40	Tetrachloroethene	1700	0.754	5	0.451	3770
54-02024	40–40	Trichloro-1,2,2-trifluoroethane[1,1,2-]	17000	21.4	59000	0.0000135	1.26E+09
54-02024	40–40	Trichloroethane[1,1,1-]	63000	0.705	60	1.49	42300
54-02024	40–40	Trichloroethene	13000	0.422	5	6.16	2110
54-02024	40–40	Trichlorofluoromethane	2200	4	1300	0.000423	5200000
54-02024	100–100	Chloroform	3600	0.15	1.65	14.5	247.5
54-02024	100–100	Dichloroethene[1,1-]	5700	1.1	5	1.04	5500
54-02024	100–100	Methylene Chloride	2100	0.09	5	4.67	450
54-02024	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	33000	21.4	59000	0.0000261	1.26E+09
54-02024	100–100	Trichloroethane[1,1,1-]	120000	0.705	60	2.84	42300
54-02024	100–100	Trichloroethene	24000	0.422	5	11.4	2110
54-02024	100–100	Trichlorofluoromethane	4200	4	1300	0.000808	5200000
54-02024	160–160	Chloroform	4700	0.15	1.65	19	247.5
54-02024	160–160	Dichloroethene[1,1-]	8600	1.1	5	1.56	5500
54-02024	160–160	Methylene Chloride	5800	0.09	5	12.9	450

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02024	160–160	Tetrachloroethene	3700	0.754	5	0.981	3770
54-02024	160–160	Trichloro-1,2,2-trifluoroethane[1,1,2-]	45000	21.4	59000	0.0000356	1.26E+09
54-02024	160–160	Trichloroethane[1,1,1-]	140000	0.705	60	3.31	42300
54-02024	160–160	Trichloroethene	34000	0.422	5	16.1	2110
54-02024	160–160	Trichlorofluoromethane	5700	4	1300	0.0011	5200000
54-02024	200–200	Chloroform	4400	0.15	1.65	17.8	247.5
54-02024	200–200	Dichloroethene[1,1-]	10000	1.1	5	1.82	5500
54-02024	200–200	Methylene Chloride	7300	0.09	5	16.2	450
54-02024	200–200	Tetrachloroethene	2900	0.754	5	0.769	3770
54-02024	200–200	Trichloro-1,2,2-trifluoroethane[1,1,2-]	51000	21.4	59000	0.0000404	1.26E+09
54-02024	200–200	Trichloroethane[1,1,1-]	130000	0.705	60	3.07	42300
54-02024	200–200	Trichloroethene	32000	0.422	5	15.2	2110
54-02024	200–200	Trichlorofluoromethane	5800	4	1300	0.00112	5200000
54-02025	20–20	Chloroform	5000	0.15	1.65	20.2	247.5
54-02025	20–20	Dichloroethane[1,1-]	2300	0.23	1220	0.0082	280600
54-02025	20–20	Dichloroethene[1,1-]	5000	1.1	5	0.909	5500
54-02025	20–20	Dichloropropane[1,2-]	6500	0.11	5	11.8	550
54-02025	20–20	Tetrachloroethene	7000	0.754	5	1.86	3770
54-02025	20–20	Trichloro-1,2,2-trifluoroethane[1,1,2-]	40000	21.4	59000	0.0000317	1.26E+09
54-02025	20–20	Trichloroethane[1,1,1-]	220000	0.705	60	5.2	42300
54-02025	20–20	Trichloroethene	33000	0.422	5	15.6	2110
54-02025	20–20	Trichlorofluoromethane	4500	4	1300	0.000865	5200000
54-02025	100–100	Chloroform	9500	0.15	1.65	38.4	247.5
54-02025	100–100	Dichloroethene[1,1-]	12000	1.1	5	2.18	5500
54-02025	100–100	Dichloropropane[1,2-]	12000	0.11	5	21.8	550
54-02025	100–100	Methylene Chloride	8600	0.09	5	19.1	450

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02025	100–100	Tetrachloroethene	9800	0.754	5	2.6	3770
54-02025	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	76000	21.4	59000	0.0000602	1.26E+09
54-02025	100–100	Trichloroethane[1,1,1-]	330000	0.705	60	7.8	42300
54-02025	100–100	Trichloroethene	60000	0.422	5	28.4	2110
54-02025	100–100	Trichlorofluoromethane	9800	4	1300	0.00188	5200000
54-02025	190–190	Chloroform	10000	0.15	1.65	40.4	247.5
54-02025	190–190	Dichloroethene[1,1-]	22000	1.1	5	4	5500
54-02025	190–190	Methylene Chloride	21000	0.09	5	46.7	450
54-02025	190–190	Tetrachloroethene	7700	0.754	5	2.04	3770
54-02025	190–190	Trichloro-1,2,2-trifluoroethane[1,1,2-]	100000	21.4	59000	0.0000792	1.26E+09
54-02025	190–190	Trichloroethane[1,1,1-]	300000	0.705	60	7.09	42300
54-02025	190–190	Trichloroethene	70000	0.422	5	33.2	2110
54-02025	190–190	Trichlorofluoromethane	13000	4	1300	0.0025	5200000
54-02026	20–20	Chloroform	240	0.15	1.65	0.97	247.5
54-02026	20–20	Dichloroethene[1,1-]	350	1.1	5	0.0636	5500
54-02026	20–20	Tetrachloroethene	270	0.754	5	0.0716	3770
54-02026	20–20	Trichloro-1,2,2-trifluoroethane[1,1,2-]	2300	21.4	59000	0.00000182	1.26E+09
54-02026	20–20	Trichloroethane[1,1,1-]	7900	0.705	60	0.187	42300
54-02026	20–20	Trichloroethene	1800	0.422	5	0.853	2110
54-02026	20–20	Trichlorofluoromethane	250	4	1300	0.0000481	5200000
54-02026	100–100	Chloroform	450	0.15	1.65	1.82	247.5
54-02026	100–100	Dichloroethene[1,1-]	780	1.1	5	0.142	5500
54-02026	100–100	Tetrachloroethene	410	0.754	5	0.109	3770
54-02026	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	4800	21.4	59000	0.0000038	1.26E+09
54-02026	100–100	Trichloroethane[1,1,1-]	14000	0.705	60	0.331	42300
54-02026	100–100	Trichloroethene	3100	0.422	5	1.47	2110

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02026	100–100	Trichlorofluoromethane	510	4	1300	0.0000981	5200000
54-02026	215–215	Chloroform	200	0.15	1.65	0.808	247.5
54-02026	215–215	Dichlorodifluoromethane	120	4.1	390	0.000075	1599000
54-02026	215–215	Dichloroethene[1,1-]	810	1.1	5	0.147	5500
54-02026	215–215	Methylene Chloride	130	0.09	5	0.289	450
54-02026	215–215	Tetrachloroethene	240	0.754	5	0.0637	3770
54-02026	215–215	Trichloro-1,2,2-trifluoroethane[1,1,2-]	4200	21.4	59000	0.00000333	1.26E+09
54-02026	215–215	Trichloroethane[1,1,1-]	8400	0.705	60	0.199	42300
54-02026	215–215	Trichloroethene	2100	0.422	5	0.995	2110
54-02026	215–215	Trichlorofluoromethane	450	4	1300	0.0000865	5200000
54-02027	20–20	Chloroform	970	0.15	1.65	3.92	247.5
54-02027	20–20	Dichloroethene[1,1-]	1300	1.1	5	0.236	5500
54-02027	20–20	Tetrachloroethene	790	0.754	5	0.21	3770
54-02027	20–20	Trichloro-1,2,2-trifluoroethane[1,1,2-]	8500	21.4	59000	0.00000673	1.26E+09
54-02027	20–20	Trichloroethane[1,1,1-]	28000	0.705	60	0.662	42300
54-02027	20–20	Trichloroethene	5800	0.422	5	2.75	2110
54-02027	20–20	Trichlorofluoromethane	1100	4	1300	0.000212	5200000
54-02027	100–100	Chloroform	2700	0.15	1.65	10.9	247.5
54-02027	100–100	Dichloroethene[1,1-]	3600	1.1	5	0.655	5500
54-02027	100–100	Methylene Chloride	950	0.09	5	2.11	450
54-02027	100–100	Tetrachloroethene	2000	0.754	5	0.531	3770
54-02027	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	23000	21.4	59000	0.0000182	1.26E+09
54-02027	100–100	Trichloroethane[1,1,1-]	74000	0.705	60	1.75	42300
54-02027	100–100	Trichloroethene	16000	0.422	5	7.58	2110
54-02027	100–100	Trichlorofluoromethane	2600	4	1300	0.0005	5200000
54-02027	250–250	Chloroform	1400	0.15	1.65	5.66	247.5

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02027	250–250	Dichloroethene[1,1-]	6100	1.1	5	1.11	5500
54-02027	250–250	Methylene Chloride	1500	0.09	5	3.33	450
54-02027	250–250	Tetrachloroethene	1500	0.754	5	0.398	3770
54-02027	250–250	Trichloro-1,2,2-trifluoroethane[1,1,2-]	25000	21.4	59000	0.0000198	1.26E+09
54-02027	250–250	Trichloroethane[1,1,1-]	46000	0.705	60	1.09	42300
54-02027	250–250	Trichloroethene	12000	0.422	5	5.69	2110
54-02027	250–250	Trichlorofluoromethane	2500	4	1300	0.000481	5200000
54-02028	20–20	Chloroform	330	0.15	1.65	1.33	247.5
54-02028	20–20	Dichloroethene[1,1-]	450	1.1	5	0.0818	5500
54-02028	20–20	Tetrachloroethene	320	0.754	5	0.0849	3770
54-02028	20–20	Trichloro-1,2,2-trifluoroethane[1,1,2-]	3100	21.4	59000	0.00000246	1.26E+09
54-02028	20–20	Trichloroethane[1,1,1-]	12000	0.705	60	0.284	42300
54-02028	20–20	Trichloroethene	2800	0.422	5	1.33	2110
54-02028	20–20	Trichlorofluoromethane	390	4	1300	0.000075	5200000
54-02028	100–100	Chloroform	500	0.15	1.65	2.02	247.5
54-02028	100–100	Dichloroethene[1,1-]	870	1.1	5	0.158	5500
54-02028	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	5300	21.4	59000	0.0000042	1.26E+09
54-02028	100–100	Trichloroethane[1,1,1-]	16000	0.705	60	0.378	42300
54-02028	100–100	Trichloroethene	4200	0.422	5	1.99	2110
54-02028	100–100	Trichlorofluoromethane	610	4	1300	0.000117	5200000
54-02028	250–250	Chloroform	230	0.15	1.65	0.929	247.5
54-02028	250–250	Dichloroethene[1,1-]	1500	1.1	5	0.273	5500
54-02028	250–250	Methylene Chloride	170	0.09	5	0.378	450
54-02028	250–250	Tetrachloroethene	320	0.754	5	0.0849	3770
54-02028	250–250	Trichloro-1,2,2-trifluoroethane[1,1,2-]	7000	21.4	59000	0.00000554	1.26E+09
54-02028	250–250	Trichloroethane[1,1,1-]	12000	0.705	60	0.284	42300

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02028	250–250	Trichloroethene	3300	0.422	5	1.56	2110
54-02028	250–250	Trichlorofluoromethane	730	4	1300	0.00014	5200000
54-02031	20–20	Dichloroethane[1,1-]	1300	0.23	1220	0.00463	280600
54-02031	20–20	Dichloroethene[1,1-]	3000	1.1	5	0.545	5500
54-02031	20–20	Tetrachloroethene	3300	0.754	5	0.875	3770
54-02031	20–20	Trichloro-1,2,2-trifluoroethane[1,1,2-]	5500	21.4	59000	0.00000436	1.26E+09
54-02031	20–20	Trichloroethane[1,1,1-]	69000	0.705	60	1.63	42300
54-02031	20–20	Trichloroethene	14000	0.422	5	6.64	2110
54-02031	100–100	Dichloroethane[1,1-]	3000	0.23	1220	0.0107	280600
54-02031	100–100	Dichloroethene[1,1-]	7200	1.1	5	1.31	5500
54-02031	100–100	Tetrachloroethene	8400	0.754	5	2.23	3770
54-02031	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	16000	21.4	59000	0.0000127	1.26E+09
54-02031	100–100	Trichloroethane[1,1,1-]	160000	0.705	60	3.78	42300
54-02031	100–100	Trichloroethene	36000	0.422	5	17.1	2110
54-02031	260–260	Dichloroethene[1,1-]	8000	1.1	5	1.45	5500
54-02031	260–260	Methylene Chloride	1300	0.09	5	2.89	450
54-02031	260–260	Tetrachloroethene	5600	0.754	5	1.49	3770
54-02031	260–260	Trichloro-1,2,2-trifluoroethane[1,1,2-]	20000	21.4	59000	0.0000158	1.26E+09
54-02031	260–260	Trichloroethane[1,1,1-]	93000	0.705	60	2.2	42300
54-02031	260–260	Trichloroethene	24000	0.422	5	11.4	2110
54-02031	260–260	Trichlorofluoromethane	2200	4	1300	0.000423	5200000
54-02034	20–20	Chloroform	99	0.15	1.65	0.4	247.5
54-02034	20–20	Cyclohexane	800	8.2	13000	0.0000075	1.07E+08
54-02034	20–20	Dichlorodifluoromethane	150	4.1	390	0.0000938	1599000
54-02034	20–20	Dichloroethane[1,1-]	300	0.23	1220	0.00107	280600
54-02034	20–20	Dichloroethene[1,1-]	580	1.1	5	0.105	5500

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02034	20–20	Tetrachloroethene	480	0.754	5	0.127	3770
54-02034	20–20	Trichloro-1,2,2-trifluoroethane[1,1,2-]	510	21.4	59000	0.000000404	1.26E+09
54-02034	20–20	Trichloroethane[1,1,1-]	33000	0.705	60	0.78	42300
54-02034	20–20	Trichloroethene	4600	0.422	5	2.18	2110
54-02034	100–100	Chloroform	170	0.15	1.65	0.687	247.5
54-02034	100–100	Cyclohexane	1400	8.2	13000	0.0000131	1.07E+08
54-02034	100–100	Dichlorodifluoromethane	270	4.1	390	0.000169	1599000
54-02034	100–100	Dichloroethane[1,1-]	700	0.23	1220	0.00249	280600
54-02034	100–100	Dichloroethane[1,2-]	230	0.0401	5	1.15	200.5
54-02034	100–100	Dichloroethene[1,1-]	1300	1.1	5	0.236	5500
54-02034	100–100	Ethanol	180	na	na	na	na
54-02034	100–100	Methylene Chloride	140	0.09	5	0.311	450
54-02034	100–100	Tetrachloroethene	770	0.754	5	0.204	3770
54-02034	100–100	Trichloro-1,2,2-trifluoroethane[1,1,2-]	960	21.4	59000	0.00000076	1.26E+09
54-02034	100–100	Trichloroethane[1,1,1-]	56000	0.705	60	1.32	42300
54-02034	100–100	Trichloroethene	9800	0.422	5	4.64	2110
54-02034	100–100	Trichlorofluoromethane	290	4	1300	0.0000558	5200000
54-02034	220–220	Acetone	130	0.0016	5500	0.0148	8800
54-02034	220–220	Carbon Tetrachloride	55(J)	1.25	5	0.0088	6250
54-02034	220–220	Cyclohexane	450	8.2	13000	0.00000422	1.07E+08
54-02034	220–220	Dichlorodifluoromethane	300	4.1	390	0.000188	1599000
54-02034	220–220	Dichloroethane[1,1-]	120	0.23	1220	0.000428	280600
54-02034	220–220	Dichloroethene[1,1-]	1200	1.1	5	0.218	5500
54-02034	220–220	Methylene Chloride	72	0.09	5	0.16	450
54-02034	220–220	Tetrachloroethene	200	0.754	5	0.0531	3770
54-02034	220–220	Trichloro-1,2,2-trifluoroethane[1,1,2-]	960	21.4	59000	0.00000076	1.26E+09

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02034	220–220	Trichloroethane[1,1,1-]	16000	0.705	60	0.378	42300
54-02034	220–220	Trichloroethene	2400	0.422	5	1.14	2110
54-02034	220–220	Trichlorofluoromethane	400	4	1300	0.0000769	5200000
54-02034	260–260	Carbon Tetrachloride	32	1.25	5	0.00512	6250
54-02034	260–260	Dichlorodifluoromethane	150	4.1	390	0.0000938	1599000
54-02034	260–260	Dichloroethane[1,1-]	11	0.23	1220	0.0000392	280600
54-02034	260–260	Dichloroethene[1,1-]	430	1.1	5	0.0782	5500
54-02034	260–260	Tetrachloroethene	52	0.754	5	0.0138	3770
54-02034	260–260	Trichloro-1,2,2-trifluoroethane[1,1,2-]	380	21.4	59000	0.000000301	1.26E+09
54-02034	260–260	Trichloroethane[1,1,1-]	3800	0.705	60	0.0898	42300
54-02034	260–260	Trichloroethene	240	0.422	5	0.114	2110
54-02034	260–260	Trichlorofluoromethane	280	4	1300	0.0000538	5200000
54-02034	300–300	Acetone	9.8	0.0016	5500	0.00111	8800
54-02034	300–300	Carbon Tetrachloride	7.2	1.25	5	0.00115	6250
54-02034	300–300	Dichlorodifluoromethane	38	4.1	390	0.0000238	1599000
54-02034	300–300	Dichloroethene[1,1-]	79	1.1	5	0.0144	5500
54-02034	300–300	Tetrachloroethene	17	0.754	5	0.00451	3770
54-02034	300–300	Trichloro-1,2,2-trifluoroethane[1,1,2-]	100	21.4	59000	0.0000000792	1.26E+09
54-02034	300–300	Trichloroethane[1,1,1-]	370	0.705	60	0.00875	42300
54-02034	300–300	Trichloroethene	38	0.422	5	0.018	2110
54-02034	300–300	Trichlorofluoromethane	84	4	1300	0.0000162	5200000
54-02089	28.5–33.5	Carbon Tetrachloride	5400	1.25	5	0.864	6250
54-02089	28.5–33.5	Chloroform	25000	0.15	1.65	101	247.5
54-02089	28.5–33.5	Cyclohexane	55000	8.2	13000	0.000516	1.07E+08
54-02089	28.5–33.5	Dichloroethane[1,1-]	50000	0.23	1220	0.178	280600
54-02089	28.5–33.5	Dichloroethane[1,2-]	56000	0.0401	5	279	200.5

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-02089	28.5–33.5	Dichloroethene[1,1-]	27000	1.1	5	4.91	5500
54-02089	28.5–33.5	Dichloropropane[1,2-]	130000	0.11	5	236	550
54-02089	28.5–33.5	Tetrachloroethene	33000	0.754	5	8.75	3770
54-02089	28.5–33.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	430000	21.4	59000	0.000341	1.26E+09
54-02089	28.5–33.5	Trichloroethane[1,1,1-]	1600000	0.705	60	37.8	42300
54-02089	28.5–33.5	Trichloroethene	560000	0.422	5	265	2110
54-02089	28.5–33.5	Trichlorofluoromethane	15000	4	1300	0.00288	5200000
54-02089	83.5–88.5	Carbon Tetrachloride	7700	1.25	5	1.23	6250
54-02089	83.5–88.5	Chloroform	41000	0.15	1.65	166	247.5
54-02089	83.5–88.5	Cyclohexane	73000	8.2	13000	0.000685	1.07E+08
54-02089	83.5–88.5	Dichlorodifluoromethane	3100	4.1	390	0.00194	1599000
54-02089	83.5–88.5	Dichloroethane[1,1-]	54000	0.23	1220	0.192	280600
54-02089	83.5–88.5	Dichloroethane[1,2-]	25000	0.0401	5	125	200.5
54-02089	83.5–88.5	Dichloroethene[1,1-]	50000	1.1	5	9.09	5500
54-02089	83.5–88.5	Dichloropropane[1,2-]	290000	0.11	5	527	550
54-02089	83.5–88.5	Methylene Chloride	3300	0.09	5	7.33	450
54-02089	83.5–88.5	Tetrachloroethene	54000	0.754	5	14.3	3770
54-02089	83.5–88.5	Tetrahydrofuran	1800	0.002895	8.8	70.7	25.476
54-02089	83.5–88.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	600000	21.4	59000	0.000475	1.26E+09
54-02089	83.5–88.5	Trichloroethane[1,1,1-]	2700000	0.705	60	63.8	42300
54-02089	83.5–88.5	Trichloroethene	770000	0.422	5	365	2110
54-02089	83.5–88.5	Trichlorofluoromethane	23000	4	1300	0.00442	5200000
54-24238	83–85	Benzene	2000	0.228	5	1.75	1140
54-24238	83–85	Carbon Tetrachloride	6800	1.25	5	1.09	6250
54-24238	83–85	Chloroform	46000	0.15	1.65	186	247.5
54-24238	83–85	Cyclohexane	70000	8.2	13000	0.000657	1.07E+08

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-24238	83–85	Dichlorodifluoromethane	3900	4.1	390	0.00244	1599000
54-24238	83–85	Dichloroethane[1,1-]	49000	0.23	1220	0.175	280600
54-24238	83–85	Dichloroethane[1,2-]	61000	0.0401	5	304	200.5
54-24238	83–85	Dichloroethene[1,1-]	57000	1.1	5	10.4	5500
54-24238	83–85	Dichloropropane[1,2-]	320000	0.11	5	582	550
54-24238	83–85	Methylene Chloride	200000	0.09	5	444	450
54-24238	83–85	Tetrachloroethene	67000	0.754	5	17.8	3770
54-24238	83–85	Tetrahydrofuran	8000	0.002895	8.8	314	25.476
54-24238	83–85	Trichloro-1,2,2-trifluoroethane[1,1,2-]	630000	21.4	59000	0.000499	1.26E+09
54-24238	83–85	Trichloroethane[1,1,1-]	2500000	0.705	60	59.1	42300
54-24238	83–85	Trichloroethene	660000	0.422	5	313	2110
54-24238	83–85	Trichlorofluoromethane	25000	4	1300	0.00481	5200000
54-24239	24–26	Chloroform	8300	0.15	1.65	33.5	247.5
54-24239	24–26	Dichloroethane[1,1-]	9000	0.23	1220	0.0321	280600
54-24239	24–26	Dichloroethane[1,2-]	2200	0.0401	5	11	200.5
54-24239	24–26	Dichloroethene[1,1-]	12000	1.1	5	2.18	5500
54-24239	24–26	Tetrachloroethene	270000	0.754	5	71.6	3770
54-24239	24–26	Trichloro-1,2,2-trifluoroethane[1,1,2-]	40000	21.4	59000	0.0000317	1.26E+09
54-24239	24–26	Trichloroethane[1,1,1-]	360000	0.705	60	8.51	42300
54-24239	24–26	Trichloroethene	110000	0.422	5	52.1	2110
54-24239	109.5–111.5	Chloroform	23000	0.15	1.65	92.9	247.5
54-24239	109.5–111.5	Dichloroethane[1,1-]	19000	0.23	1220	0.0677	280600
54-24239	109.5–111.5	Dichloroethane[1,2-]	16000	0.0401	5	79.8	200.5
54-24239	109.5–111.5	Dichloroethene[1,1-]	40000	1.1	5	7.27	5500
54-24239	109.5–111.5	Tetrachloroethene	310000	0.754	5	82.2	3770
54-24239	109.5–111.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	150000	21.4	59000	0.000119	1.26E+09

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-24239	109.5–111.5	Trichloroethane[1,1,1-]	1200000	0.705	60	28.4	42300
54-24239	109.5–111.5	Trichloroethene	290000	0.422	5	137	2110
54-24240	27–29	Dichlorodifluoromethane	75000	4.1	390	0.0469	1599000
54-24240	27–29	Dichloroethane[1,1-]	92000	0.23	1220	0.328	280600
54-24240	27–29	Dichloroethane[1,2-]	420000	0.0401	5	2090	200.5
54-24240	27–29	Methylene Chloride	41000	0.09	5	91.1	450
54-24240	27–29	Tetrachloroethene	300000	0.754	5	79.6	3770
54-24240	27–29	Trichloro-1,2,2-trifluoroethane[1,1,2-]	99000	21.4	59000	0.0000784	1.26E+09
54-24240	27–29	Trichloroethane[1,1,1-]	2000000	0.705	60	47.3	42300
54-24240	27–29	Trichloroethene	720000	0.422	5	341	2110
54-24240	27–29	Trichlorofluoromethane	48000	4	1300	0.00923	5200000
54-24240	102–104	Dichloroethane[1,1-]	48000	0.23	1220	0.171	280600
54-24240	102–104	Dichloroethane[1,2-]	82000	0.0401	5	409	200.5
54-24240	102–104	Dichloroethene[1,1-]	28000	1.1	5	5.09	5500
54-24240	102–104	Methylene Chloride	37000	0.09	5	82.2	450
54-24240	102–104	Tetrachloroethene	140000	0.754	5	37.1	3770
54-24240	102–104	Trichloro-1,2,2-trifluoroethane[1,1,2-]	62000	21.4	59000	0.0000491	1.26E+09
54-24240	102–104	Trichloroethane[1,1,1-]	1600000	0.705	60	37.8	42300
54-24240	102–104	Trichloroethene	320000	0.422	5	152	2110
54-24240	127–129	Dichloroethane[1,1-]	37000	0.23	1220	0.132	280600
54-24240	127–129	Dichloroethane[1,2-]	49000	0.0401	5	244	200.5
54-24240	127–129	Dichloroethene[1,1-]	32000	1.1	5	5.82	5500
54-24240	127–129	Methylene Chloride	15000	0.09	5	33.3	450
54-24240	127–129	Tetrachloroethene	83000	0.754	5	22	3770
54-24240	127–129	Trichloro-1,2,2-trifluoroethane[1,1,2-]	53000	21.4	59000	0.000042	1.26E+09
54-24240	127–129	Trichloroethane[1,1,1-]	1300000	0.705	60	30.7	42300

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-24240	127–129	Trichloroethene	300000	0.422	5	142	2110
54-24240	152–154	Dichloroethane[1,1-]	29000	0.23	1220	0.103	280600
54-24240	152–154	Dichloroethane[1,2-]	25000	0.0401	5	125	200.5
54-24240	152–154	Dichloroethene[1,1-]	33000	1.1	5	6	5500
54-24240	152–154	Tetrachloroethene	71000	0.754	5	18.8	3770
54-24240	152–154	Trichloro-1,2,2-trifluoroethane[1,1,2-]	48000	21.4	59000	0.000038	1.26E+09
54-24240	152–154	Trichloroethane[1,1,1-]	1100000	0.705	60	26	42300
54-24240	152–154	Trichloroethene	250000	0.422	5	118	2110
54-24241	92–94	Chloroform	31000	0.15	1.65	125	247.5
54-24241	92–94	Dichloroethane[1,1-]	36000	0.23	1220	0.128	280600
54-24241	92–94	Dichloroethane[1,2-]	22000	0.0401	5	110	200.5
54-24241	92–94	Dichloroethene[1,1-]	35000	1.1	5	6.36	5500
54-24241	92–94	Tetrachloroethene	130000	0.754	5	34.5	3770
54-24241	92–94	Trichloro-1,2,2-trifluoroethane[1,1,2-]	210000	21.4	59000	0.000166	1.26E+09
54-24241	92–94	Trichloroethane[1,1,1-]	1300000	0.705	60	30.7	42300
54-24241	92–94	Trichloroethene	290000	0.422	5	137	2110
54-24241	112–114	Chloroform	25000	0.15	1.65	101	247.5
54-24241	112–114	Dichloroethane[1,1-]	27000	0.23	1220	0.0962	280600
54-24241	112–114	Dichloroethane[1,2-]	19000	0.0401	5	94.8	200.5
54-24241	112–114	Dichloroethene[1,1-]	35000	1.1	5	6.36	5500
54-24241	112–114	Tetrachloroethene	110000	0.754	5	29.2	3770
54-24241	112–114	Trichloro-1,2,2-trifluoroethane[1,1,2-]	170000	21.4	59000	0.000135	1.26E+09
54-24241	112–114	Trichloroethane[1,1,1-]	1000000	0.705	60	23.6	42300
54-24241	112–114	Trichloroethene	250000	0.422	5	118	2110
54-24241	192–194	Chloroform	15000	0.15	1.65	60.6	247.5
54-24241	192–194	Dichloroethane[1,1-]	12000	0.23	1220	0.0428	280600

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-24241	192–194	Dichloroethane[1,2-]	8800	0.0401	5	43.9	200.5
54-24241	192–194	Dichloroethene[1,1-]	40000	1.1	5	7.27	5500
54-24241	192–194	Methylene Chloride	6700	0.09	5	14.9	450
54-24241	192–194	Tetrachloroethene	70000	0.754	5	18.6	3770
54-24241	192–194	Trichloro-1,2,2-trifluoroethane[1,1,2-]	130000	21.4	59000	0.000103	1.26E+09
54-24241	192–194	Trichloroethane[1,1,1-]	620000	0.705	60	14.7	42300
54-24241	192–194	Trichloroethene	170000	0.422	5	80.6	2110
54-24241	192–194	Trichlorofluoromethane	13000	4	1300	0.0025	5200000
54-24242	24–26	Carbon Tetrachloride	3300	1.25	5	0.528	6250
54-24242	24–26	Chloroform	14000	0.15	1.65	56.6	247.5
54-24242	24–26	Cyclohexane	14000	8.2	13000	0.000131	1.07E+08
54-24242	24–26	Dichlorodifluoromethane	980	4.1	390	0.000613	1599000
54-24242	24–26	Dichloroethane[1,1-]	13000	0.23	1220	0.0463	280600
54-24242	24–26	Dichloroethane[1,2-]	5200	0.0401	5	25.9	200.5
54-24242	24–26	Dichloroethene[1,1-]	18000	1.1	5	3.27	5500
54-24242	24–26	Dichloropropane[1,2-]	7000	0.11	5	12.7	550
54-24242	24–26	Tetrachloroethene	240000	0.754	5	63.7	3770
54-24242	24–26	Trichloro-1,2,2-trifluoroethane[1,1,2-]	61000	21.4	59000	0.0000483	1.26E+09
54-24242	24–26	Trichloroethane[1,1,1-]	580000	0.705	60	13.7	42300
54-24242	24–26	Trichloroethene	170000	0.422	5	80.6	2110
54-24242	24–26	Trichlorofluoromethane	4400	4	1300	0.000846	5200000
54-24242	98.5–100.5	Benzene	800	0.228	5	0.702	1140
54-24242	98.5–100.5	Carbon Tetrachloride	3900	1.25	5	0.624	6250
54-24242	98.5–100.5	Chloroform	17000	0.15	1.65	68.7	247.5
54-24242	98.5–100.5	Cyclohexane	21000	8.2	13000	0.000197	1.07E+08
54-24242	98.5–100.5	Dichlorodifluoromethane	1800	4.1	390	0.00113	1599000

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-24242	98.5–100.5	Dichloroethane[1,1-]	16000	0.23	1220	0.057	280600
54-24242	98.5–100.5	Dichloroethane[1,2-]	10000	0.0401	5	49.9	200.5
54-24242	98.5–100.5	Dichloroethene[1,1-]	28000	1.1	5	5.09	5500
54-24242	98.5–100.5	Dichloropropane[1,2-]	7100	0.11	5	12.9	550
54-24242	98.5–100.5	Tetrachloroethene	240000	0.754	5	63.7	3770
54-24242	98.5–100.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	93000	21.4	59000	0.0000737	1.26E+09
54-24242	98.5–100.5	Trichloroethane[1,1,1-]	820000	0.705	60	19.4	42300
54-24242	98.5–100.5	Trichloroethene	230000	0.422	5	109	2110
54-24242	98.5–100.5	Trichlorofluoromethane	7500	4	1300	0.00144	5200000
54-24243	24–26	Chloroform	21000	0.15	1.65	84.8	247.5
54-24243	24–26	Dichloroethane[1,1-]	25000	0.23	1220	0.0891	280600
54-24243	24–26	Dichloroethene[1,1-]	21000	1.1	5	3.82	5500
54-24243	24–26	Dichloropropane[1,2-]	49000	0.11	5	89.1	550
54-24243	24–26	Tetrachloroethene	21000	0.754	5	5.57	3770
54-24243	24–26	Trichloro-1,2,2-trifluoroethane[1,1,2-]	310000	21.4	59000	0.000246	1.26E+09
54-24243	24–26	Trichloroethane[1,1,1-]	1200000	0.705	60	28.4	42300
54-24243	24–26	Trichloroethene	260000	0.422	5	123	2110
54-24243	99–101	Chloroform	30000	0.15	1.65	121	247.5
54-24243	99–101	Dichloroethane[1,1-]	26000	0.23	1220	0.0927	280600
54-24243	99–101	Dichloroethane[1,2-]	21000	0.0401	5	105	200.5
54-24243	99–101	Dichloroethene[1,1-]	60000	1.1	5	10.9	5500
54-24243	99–101	Dichloropropane[1,2-]	100000	0.11	5	182	550
54-24243	99–101	Methylene Chloride	54000	0.09	5	120	450
54-24243	99–101	Tetrachloroethene	23000	0.754	5	6.1	3770
54-24243	99–101	Trichloro-1,2,2-trifluoroethane[1,1,2-]	410000	21.4	59000	0.000325	1.26E+09
54-24243	99–101	Trichloroethane[1,1,1-]	1600000	0.705	60	37.8	42300

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-24243	99–101	Trichloroethene	340000	0.422	5	161	2110
54-24243	99–101	Trichlorofluoromethane	21000	4	1300	0.00404	5200000
54-24243	124–126	Chloroform	26000	0.15	1.65	105	247.5
54-24243	124–126	Dichloroethane[1,1-]	19000	0.23	1220	0.0677	280600
54-24243	124–126	Dichloroethane[1,2-]	23000	0.0401	5	115	200.5
54-24243	124–126	Dichloroethene[1,1-]	47000	1.1	5	8.55	5500
54-24243	124–126	Dichloropropane[1,2-]	59000	0.11	5	107	550
54-24243	124–126	Methylene Chloride	44000	0.09	5	97.8	450
54-24243	124–126	Trichloro-1,2,2-trifluoroethane[1,1,2-]	300000	21.4	59000	0.000238	1.26E+09
54-24243	124–126	Trichloroethane[1,1,1-]	1400000	0.705	60	33.1	42300
54-24243	124–126	Trichloroethene	270000	0.422	5	128	2110
54-24399	550–608	Dichloroethane[1,1-]	140	0.23	1220	0.000499	280600
54-24399	550–608	Dichloroethene[1,1-]	230	1.1	5	0.0418	5500
54-24399	550–608	Tetrachloroethene	490	0.754	5	0.13	3770
54-24399	550–608	Trichloro-1,2,2-trifluoroethane[1,1,2-]	840	21.4	59000	0.000000665	1.26E+09
54-24399	550–608	Trichloroethane[1,1,1-]	5200	0.705	60	0.123	42300
54-24399	550–608	Trichloroethene	1000	0.422	5	0.474	2110
54-27641	30–34	Dichloroethane[1,1-]	71000	0.23	1220	0.253	280600
54-27641	30–34	Dichloroethane[1,2-]	120000	0.0401	5	599	200.5
54-27641	30–34	Methylene Chloride	40000	0.09	5	88.9	450
54-27641	30–34	Tetrachloroethene	180000	0.754	5	47.7	3770
54-27641	30–34	Trichloro-1,2,2-trifluoroethane[1,1,2-]	62000	21.4	59000	0.0000491	1.26E+09
54-27641	30–34	Trichloroethane[1,1,1-]	1600000	0.705	60	37.8	42300
54-27641	30–34	Trichloroethene	510000	0.422	5	242	2110
54-27641	80–84	Dichloroethane[1,1-]	49000	0.23	1220	0.175	280600
54-27641	80–84	Dichloroethane[1,2-]	83000	0.0401	5	414	200.5

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-27641	80–84	Methylene Chloride	82000	0.09	5	182	450
54-27641	80–84	Tetrachloroethene	210000	0.754	5	55.7	3770
54-27641	80–84	Trichloro-1,2,2-trifluoroethane[1,1,2-]	46000	21.4	59000	0.0000364	1.26E+09
54-27641	80–84	Trichloroethane[1,1,1-]	1500000	0.705	60	35.5	42300
54-27641	80–84	Trichloroethene	260000	0.422	5	123	2110
54-27641	110–114	Dichloroethane[1,1-]	39000	0.23	1220	0.139	280600
54-27641	110–114	Dichloroethane[1,2-]	58000	0.0401	5	289	200.5
54-27641	110–114	Dichloroethene[1,1-]	24000	1.1	5	4.36	5500
54-27641	110–114	Methylene Chloride	45000	0.09	5	100	450
54-27641	110–114	Tetrachloroethene	110000	0.754	5	29.2	3770
54-27641	110–114	Trichloro-1,2,2-trifluoroethane[1,1,2-]	39000	21.4	59000	0.0000309	1.26E+09
54-27641	110–114	Trichloroethane[1,1,1-]	1400000	0.705	60	33.1	42300
54-27641	110–114	Trichloroethene	230000	0.422	5	109	2110
54-27641	230–235	Dichloroethane[1,1-]	6900	0.23	1220	0.0246	280600
54-27641	230–235	Dichloroethene[1,1-]	22000	1.1	5	4	5500
54-27641	230–235	Methylene Chloride	8900	0.09	5	19.8	450
54-27641	230–235	Tetrachloroethene	15000	0.754	5	3.98	3770
54-27641	230–235	Trichloro-1,2,2-trifluoroethane[1,1,2-]	25000	21.4	59000	0.0000198	1.26E+09
54-27641	230–235	Trichloroethane[1,1,1-]	390000	0.705	60	9.22	42300
54-27641	230–235	Trichloroethene	82000	0.422	5	38.9	2110
54-27641	269–273	Dichloroethene[1,1-]	15000	1.1	5	2.73	5500
54-27641	269–273	Methylene Chloride	2400	0.09	5	5.33	450
54-27641	269–273	Tetrachloroethene	6100	0.754	5	1.62	3770
54-27641	269–273	Trichloro-1,2,2-trifluoroethane[1,1,2-]	19000	21.4	59000	0.000015	1.26E+09
54-27641	269–273	Trichloroethane[1,1,1-]	140000	0.705	60	3.31	42300
54-27641	269–273	Trichloroethene	36000	0.422	5	17.1	2110

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-27641	330–335	Dichlorodifluoromethane	560	4.1	390	0.00035	1599000
54-27641	330–335	Dichloroethene[1,1-]	3700	1.1	5	0.673	5500
54-27641	330–335	Tetrachloroethene	930	0.754	5	0.247	3770
54-27641	330–335	Trichloro-1,2,2-trifluoroethane[1,1,2-]	6900	21.4	59000	0.00000546	1.26E+09
54-27641	330–335	Trichloroethane[1,1,1-]	16000	0.705	60	0.378	42300
54-27641	330–335	Trichloroethene	5300	0.422	5	2.51	2110
54-27641	330–335	Trichlorofluoromethane	1100	4	1300	0.000212	5200000
54-27642	27.5–32.5	Dichloroethane[1,1-]	44000	0.23	1220	0.157	280600
54-27642	27.5–32.5	Dichloroethene[1,1-]	51000	1.1	5	9.27	5500
54-27642	27.5–32.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	400000	21.4	59000	0.000317	1.26E+09
54-27642	27.5–32.5	Trichloroethane[1,1,1-]	3500000	0.705	60	82.7	42300
54-27642	27.5–32.5	Trichloroethene	220000	0.422	5	104	2110
54-27642	72.5–77.5	Chloroform	31000	0.15	1.65	125	247.5
54-27642	72.5–77.5	Dichloroethane[1,1-]	23000	0.23	1220	0.082	280600
54-27642	72.5–77.5	Dichloroethane[1,2-]	21000	0.0401	5	105	200.5
54-27642	72.5–77.5	Dichloroethene[1,1-]	57000	1.1	5	10.4	5500
54-27642	72.5–77.5	Dichloropropane[1,2-]	80000	0.11	5	145	550
54-27642	72.5–77.5	Methylene Chloride	17000	0.09	5	37.8	450
54-27642	72.5–77.5	Tetrachloroethene	36000	0.754	5	9.55	3770
54-27642	72.5–77.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	340000	21.4	59000	0.000269	1.26E+09
54-27642	72.5–77.5	Trichloroethane[1,1,1-]	1600000	0.705	60	37.8	42300
54-27642	72.5–77.5	Trichloroethene	300000	0.422	5	142	2110
54-27642	72.5–77.5	Trichlorofluoromethane	27000	4	1300	0.00519	5200000
54-27642	113.5–118.5	Dichloroethane[1,1-]	39000	0.23	1220	0.139	280600
54-27642	113.5–118.5	Dichloroethene[1,1-]	62000	1.1	5	11.3	5500
54-27642	113.5–118.5	Dichloropropane[1,2-]	130000	0.11	5	236	550

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-27642	113.5–118.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	510000	21.4	59000	0.000404	1.26E+09
54-27642	113.5–118.5	Trichloroethane[1,1,1-]	2800000	0.705	60	66.2	42300
54-27642	113.5–118.5	Trichloroethene	340000	0.422	5	161	2110
54-27642	232–237.5	Chloroform	18000	0.15	1.65	72.7	247.5
54-27642	232–237.5	Dichloroethene[1,1-]	72000	1.1	5	13.1	5500
54-27642	232–237.5	Methylene Chloride	59000	0.09	5	131	450
54-27642	232–237.5	Tetrachloroethene	17000	0.754	5	4.51	3770
54-27642	232–237.5	Toluene	11000	0.272	750	0.0539	204000
54-27642	232–237.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	260000	21.4	59000	0.000206	1.26E+09
54-27642	232–237.5	Trichloroethane[1,1,1-]	720000	0.705	60	17	42300
54-27642	232–237.5	Trichloroethene	190000	0.422	5	90	2110
54-27642	232–237.5	Trichlorofluoromethane	30000	4	1300	0.00577	5200000
54-27642	272–277.5	Chloroform	8900	0.15	1.65	36	247.5
54-27642	272–277.5	Dichloroethene[1,1-]	53000	1.1	5	9.64	5500
54-27642	272–277.5	Methylene Chloride	26000	0.09	5	57.8	450
54-27642	272–277.5	Tetrachloroethene	8500	0.754	5	2.25	3770
54-27642	272–277.5	Toluene	4100	0.272	750	0.0201	204000
54-27642	272–277.5	Trichloro-1,2,2-trifluoroethane[1,1,2-]	170000	21.4	59000	0.000135	1.26E+09
54-27642	272–277.5	Trichloroethane[1,1,1-]	360000	0.705	60	8.51	42300
54-27642	272–277.5	Trichloroethene	110000	0.422	5	52.1	2110
54-27642	272–277.5	Trichlorofluoromethane	19000	4	1300	0.00365	5200000
54-27642	335–341	Dichloroethene[1,1-]	21000	1.1	5	3.82	5500
54-27642	335–341	Methylene Chloride	2700	0.09	5	6	450
54-27642	335–341	Trichloro-1,2,2-trifluoroethane[1,1,2-]	47000	21.4	59000	0.0000372	1.26E+09
54-27642	335–341	Trichloroethane[1,1,1-]	69000	0.705	60	1.63	42300
54-27642	335–341	Trichloroethene	24000	0.422	5	11.4	2110

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-27642	335–341	Trichlorofluoromethane	4500	4	1300	0.000865	5200000
54-27643	27.5–32.5	Chloroform	8600	0.15	1.65	34.7	247.5
54-27643	27.5–32.5	Dichloroethane[1,1-]	4400	0.23	1220	0.0157	280600
54-27643	27.5–32.5	Dichloropropane[1,2-]	20000	0.11	5	36.4	550
54-27643	27.5–32.5	Tetrachloroethene	15000	0.754	5	3.98	3770
54-27643	27.5–32.5	Trichloroethane[1,1,1-]	370000	0.705	60	8.75	42300
54-27643	71.5–76.5	Chloroform	14000	0.15	1.65	56.6	247.5
54-27643	71.5–76.5	Dichloroethane[1,2-]	9000	0.0401	5	44.9	200.5
54-27643	71.5–76.5	Dichloropropane[1,2-]	29000	0.11	5	52.7	550
54-27643	71.5–76.5	Tetrachloroethene	20000	0.754	5	5.31	3770
54-27643	71.5–76.5	Trichloroethane[1,1,1-]	530000	0.705	60	12.5	42300
54-27643	71.5–76.5	Trichloroethene	98000	0.422	5	46.4	2110
54-27643	114.5–119.5	Chloroform	17000	0.15	1.65	68.7	247.5
54-27643	114.5–119.5	Dichloroethane[1,2-]	11000	0.0401	5	54.9	200.5
54-27643	114.5–119.5	Dichloropropane[1,2-]	25000	0.11	5	45.5	550
54-27643	114.5–119.5	Methylene Chloride	22000	0.09	5	48.9	450
54-27643	114.5–119.5	Tetrachloroethene	18000	0.754	5	4.77	3770
54-27643	114.5–119.5	Trichloroethane[1,1,1-]	580000	0.705	60	13.7	42300
54-27643	114.5–119.5	Trichloroethene	120000	0.422	5	56.9	2110
54-27643	232.5–237.5	Chloroform	12000	0.15	1.65	48.5	247.5
54-27643	232.5–237.5	Methylene Chloride	31000	0.09	5	68.9	450
54-27643	232.5–237.5	Tetrachloroethene	9500	0.754	5	2.52	3770
54-27643	232.5–237.5	Toluene	4700	0.272	750	0.023	204000
54-27643	232.5–237.5	Trichloroethane[1,1,1-]	350000	0.705	60	8.27	42300
54-27643	232.5–237.5	Trichloroethene	99000	0.422	5	46.9	2110
54-27643	232.5–237.5	Trichlorofluoromethane	16000	4	1300	0.00308	5200000

Table 5.4-1 (continued)

Location ID	Depth (ft)	VOC	Std Result (µg/m³)	H'	SL (µg/L)	SV	Screen Concentration (µg/m³)
54-27643	272.5–278.5	Benzene	1300	0.228	5	1.14	1140
54-27643	272.5–278.5	Carbon Tetrachloride	3000	1.25	5	0.48	6250
54-27643	272.5–278.5	Chloroform	9700	0.15	1.65	39.2	247.5
54-27643	272.5–278.5	Dichloroethane[1,1-]	2300	0.23	1220	0.0082	280600
54-27643	272.5–278.5	Dichloroethane[1,2-]	340	0.0401	5	1.7	200.5
54-27643	272.5–278.5	Dichloropropane[1,2-]	2300	0.11	5	4.18	550
54-27643	272.5–278.5	Methylene Chloride	17000	0.09	5	37.8	450
54-27643	272.5–278.5	Tetrachloroethene	8200	0.754	5	2.18	3770
54-27643	272.5–278.5	Toluene	2800	0.272	750	0.0137	204000

* na = Not available.

Table 5.4-2
Summary of VOCs with SVs Greater Than 1

VOC	Number of Detections with SV > 1	Maximum SV	Location with Largest SV (depth in ft)
Benzene	2	1.75	54-24238 (83–85)
Carbon Tetrachloride	2	1.23	54-02089 (83.5–88.5)
Chloroform	53	186	54-24238 (83–85)
Dichloroethane[1,2-]	38	2090	54-24240 (27–29)
Dichloroethene[1,1-]	50	13.1	54-27642 (232–237.5)
Dichloropropane[1,2-]	27	582	54-24238 (83–85)
Methylene Chloride	44	444	54-24238 (83–85)
Tetrachloroethene	47	82.2	54-24239 (109.5–111.5)
Tetrahydrofuran	2	314	54-24238 (83–85)
Trichloroethane[1,1,1-]	65	82.7	54-27642 (27.5–32.5)
Trichloroethene	72	365	54-02089 (83.5–88.5)

Appendix A

Quality Assurance/Quality Control Program

A-1.0 INTRODUCTION

In accordance with Section XI.D.13.b of the Compliance Order on Consent, this appendix discusses analytical methods, data quality objectives, and data quality review. Additionally, this appendix summarizes the effects of data quality exceptions on the acceptability of the field and laboratory analytical data as they impact the investigation and site status.

Quality assurance (QA), quality control (QC), and data validation procedures were implemented in accordance with the Los Alamos National Laboratory (LANL or the Laboratory) "Quality Assurance Project Plan Requirements for Sampling and Analysis" (LANL 1996, 054609) and the Laboratory's statement of work for analytical services (LANL 2000, 071233). The results of the QA/QC activities were used to estimate the accuracy, bias, and precision of the analytical measurements. QC samples, including method blanks, blank spikes, matrix spikes, laboratory control samples (LCSs), internal standards, initial and continuing calibrations, surrogates, and tracers, were used to assess laboratory accuracy and bias.

The type and frequency of QC analyses are described in the analytical services contract. Other QC factors, such as sample preservation and holding times, were also assessed. The requirements for sample preservation and holding times are given in the Environmental Programs Directorate Standard Operating Procedure (SOP) 01.02, "Sample Containers and Preservation." Evaluating these QC indicators allows estimates to be made of the accuracy, bias, and precision of the analytical suites. A focused data validation was also performed for all the data packages (identified by request number). The procedures used for data validation are given in Table A-1.0-1. The focused validation followed the same procedure discussed above and included a more detailed review of the raw data results generated by the analytical laboratory. Copies of the raw analytical data, laboratory logbooks, and instrument printouts used during focused validation are provided in data packages as part of Appendix B (on CD included with this document).

Analytical data were reviewed and evaluated based on U.S. Environmental Protection Agency (EPA) National Functional Guidelines for inorganic and organic chemical data review where applicable (EPA 1994, 048639; EPA 1999, 066649). Data have also been assessed using guidelines established in Method SW-846 (EPA 1997, 057589). As a result of the data validation and assessment efforts, qualifiers have been assigned to each analytical record. Definitions for the data qualifiers used in data validation are given in Table A-1.0-2. Data validators and reviewers made judgments about the following industry-accepted QA/QC analytical quality functions.

Maintenance of Chain of Custody

To maintain chain of custody (COC) is to document or demonstrate the possession of an item by only authorized individuals. The COC process provides confidence in, and documentation of, analytical data integrity by establishing the traceability of the sample from the time of collection through processing to final maintenance as a record.

Sample Documentation

Establishing sample documentation acceptability is the first step toward verifying that an analytical system has produced data of known quality. Documentation is dependent upon the accessibility of review items that accurately and completely describe the work performed. In the absence of adequate sample documentation, data quality cannot be independently verified.

Sample Preservation

Sample preservation is the use of specific types of sample containers and preservation techniques. Sample preservation is mandatory for hazardous site investigations because the integrity of any sample decreases over time. Physical factors (light, pressure, temperature, etc.), chemical factors (changes in pH, volatilization, etc.), and biological factors may alter the original quality of a sample. Because the various target parameters are uniquely altered at varying rates, distinct sample containers, preservation techniques, and holding times have been established to maintain sample integrity for a reasonable and acceptable period of time.

Holding Time

Holding time is the maximum amount of time a sample can be stored without unacceptable changes in analyte concentrations. Holding times apply under prescribed conditions; deviations from these conditions may affect the holding time. Extraction holding time refers to the time that lapses between sample collection and sample preparation; analytical holding time refers to the time that lapses between sample preparation and analysis.

Initial and Continuing Calibration Verification (including interference-check standards)

Calibration verification is the establishment of a quantitative relationship between the response of the analytical procedure and the concentration of the target analyte. The two aspects of calibration verification are initial and continuing. The initial calibration verifies the accuracy of the calibration curve as well as the individual calibration standards being used to perform the calibration. The continuing calibration ensures that the initial calibration is still holding and correct as the instrument is used to process samples. Interference-check samples are used to determine if a high concentration of a single analyte in a sample interferes with the accurate quantitation of other analytes.

Analyte Identification (including spectra review and thermal ionization cavity review)

Analyte identification is the process of associating an instrument signal with a compound or analyte of interest. Evaluation of signal retention times, spectral overlap, multipeak pattern matching, and mass spectral library searches are tools for making analyte identification determinations.

Analyte Quantitation

Analyte quantitation is the association of an instrument signal with a concentration, and the determination that a recorded signal is detected or not detected. Detection limits, instrument calibration linear ranges, internal standards, and carrier recoveries are tools for making analyte quantitation evaluations.

Organic and inorganic chemical results are considered to be not detected if reported results are less than or equal to the method detection limit adjusted by sample-specific dilution or concentration factors.

Radiochemical results reported with values less than the minimum detectable activity are considered to be not detected (U). Each radiochemical result is also compared with the corresponding 1-sigma total propagated uncertainty (TPU). If the result is not greater than 3 times the TPU, it is also qualified as not detected.

Method Blank

A method blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as those used in the environmental sample processing and which is extracted and analyzed in the same manner as the corresponding environmental samples. Method blanks are used to assess the potential for sample contamination during extraction and analysis. All target analytes should be below the contract-required detection limit in the method blank (LANL 2000, 071233).

Matrix Spike Recoveries

A matrix spike is an aliquot of sample spiked with a known concentration of the target analyte(s). Matrix spike samples are used to measure the ability to recover prescribed analytes from a native sample matrix. Spiking typically occurs before sample preparation and analysis. Acceptable percentage recoveries for matrix spikes vary by method but should generally be greater than 10% for an analytical result to be usable (LANL 2000, 071233).

Surrogate and Tracer Recoveries

A surrogate (an organic chemical compound) and a tracer (a radiochemical isotope) are similar in composition and behavior to target analytes but are not typically found in environmental samples. Surrogates and tracers are added to every blank, sample, and spike to evaluate the efficiency with which target analytes are recovered during extraction and analysis. The recovery percentages of the surrogates and tracers vary by method but should generally be greater than 10% for an analytical result to be usable (LANL 2000, 071233).

Internal Standard Responses and Carrier Recoveries

Internal standards and carriers are chemical compounds that are added to blank, sample, and standard extracts at known concentrations. They are used to compensate for (1) analyte concentration changes that might occur during storage of the extract and (2) quantitation variations that can occur during analysis. Internal standard responses and carrier recoveries are used to adjust the reported concentrations for the quantitation of target analytes. The response factors for internal standards vary by method but should generally range from $\geq$50% to $\leq$200%. The recoveries for carriers vary by method but should generally be greater than 10% for an analytical result to be usable (LANL 2000, 071233).

LCS Recoveries

An LCS is a known matrix that has been spiked with compound(s) that are representative of the target analytes. The LCS is used to document laboratory performance. The acceptance criteria for LCSs are method-specific but should generally be greater than 10% for an analytical result to be usable (LANL 2000, 071233).

Laboratory and Field Duplicates (including serial dilutions)

Laboratory duplicates are two portions of a sample taken from the same sample container (prepared for analysis and analyzed independently but under identical conditions) that are used to assess or demonstrate acceptable laboratory-method precision at the time of analysis. Each duplicate sample is equally representative of the original material. Duplicate analyses are also performed to generate data and to determine the long-term precision of an analytical method on various matrices. All relative percent differences (%RPDs) between samples and field duplicates should be $\pm$35% (LANL 2000, 071233). RPD

is defined by the equation RPD = [|D1 – D2| / (D1 + D2)] × 100%, where D1 and D2 represent analytical measurements on duplicate samples.

For radionuclides, the duplicate error ratio (DER) may also be used to quantify precision. DER is defined by the equation DER = |S–D| / sqrt($2\sigma S^2 + 2\sigma D^2$), where S represents the original sample value, D represents the duplicate value, and *2*σS and *2*σD represent the 2-sigma uncertainties surrounding the original and duplicate samples, respectively. A DER below 3 indicates sample-to-field-duplicate precision that is in control.

Field duplicates are independent samples that are collected as closely as possible to the same point in space and time. They are two separate samples taken from the same source, stored in separate containers, and analyzed independently.

Serial dilution checks are performed for certain inorganic analyses to determine if dilutions have been prepared correctly and to identify any effects that may arise from characteristics of the sample matrix.

Trip Blanks, Field Blanks, and Rinsate Blanks

Trip blanks, field blanks, and rinsate blanks are collected and analyzed to establish whether concentration values assigned to an analyte or compound are attributable to contamination of the analytical system or to the presence of the analyte in the samples collected.

Trip blank—A sample of analyte-free medium that is taken to the sampling site and returned unopened to an analytical laboratory. Trip blanks are used to identify contamination attributable to shipping or field handling procedures. Trip blanks are required for all field events that include the collection of volatile samples.

Field blank—A sample of analyte-free medium that is taken to the sampling site and exposed to the atmosphere during sample-collection activities. Field blanks are used to measure contamination introduced during sample collection.

Equipment rinsate blank—A sample of analyte-free medium that has been used to rinse the sampling equipment. It is collected after completion of decontamination and before sampling. Equipment rinsate blanks are used to assess the cleanliness of sampling equipment.

A-2.0 LABORATORY ANALYSIS SUMMARY

During the second quarter of fiscal year 2008, 80 pore-gas samples, 5 field duplicate samples, 3 field blank samples, 1 equipment rinsate blank, and 3 performance evaluation samples were collected for volatile organic compounds (VOCs), and 83 pore-gas samples and five field duplicate samples were collected for tritium at Solid Waste Management Unit (SWMU) 54-006. Analysis of pore gas was conducted for VOCs using EPA Method TO-15 and for tritium using EPA Method 906.0. All QC procedures were followed as required by the analytical services contract. Table A-2.0-1 lists the analytical methods used for radiochemical and organic chemical analyses.

The data, including the qualified data, are usable for evaluation and interpretive purposes. The entire data set meets the standards set for use in this report.

The analytical methods used for radionuclides, inorganic chemicals, and organic chemicals are summarized in the following sections. The required estimated detection limit (EDL) or estimated quantitation limit (EQL) for each analyte is defined in the analytical services contract.

A-3.0 ORGANIC CHEMICAL ANALYSES

The summaries for these analyses are presented in the sections below. All QC procedures were followed as required by the analytical services contract.

Maintenance of COC

COC was properly maintained for all samples.

Sample Documentation and Dilutions

Samples were properly documented in the field.

Sample Preservation

Preservation criteria were met for all samples.

Holding Time

Holding times were met for all samples.

Initial and Continuing Calibration Verification

Initial acceptance criteria were met for all but 54 sample analyses. One result was not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit. Fifty-three reported results were analyzed with an initial calibration curve that exceeded the %RSD criteria, and/or the associated multipoint calibration correlation coefficient is <0.995. Affected records were qualified as being an estimate of their sample-specific quantitation limit.

Continuing calibration percent differences (%D) were recovered outside the method-specific limits, affecting EPA Method TO-15 analyses of 86 nondetected organic chemical analytical records. Affected records were qualified as being an estimate of their sample-specific quantitation limit.

Analyte Identification (including internal standards, spectra review, and thermal ionization cavity review)

Analyte identification criteria were met for internal standard, spectra review, thermal ionization cavity criteria for each sample analyses.

Analyte Quantitation

Analyte quantitation criteria were met for all sample analyses.

Method Blank

Method blank results for organic chemical analyses were within acceptable limits for all but 26 sample analyses. Affected sample results are less than or equal to 5 times the concentration of the related analyte in the trip blank or equipment blank, which indicates the reported detection is considered indistinguishable from the contamination in the blank.

Matrix Spike Recoveries

All matrix spike recoveries for organic chemical analyses were within acceptable limits.

Surrogate Recoveries

All surrogate recoveries for organic chemical analyses were within acceptable limits.

Internal Standard Responses

All internal standard responses for organic chemical analyses were within acceptable limits.

LCS Recoveries

LCS recoveries were within acceptable limits for all but three EPA Method TO-15 chemical analyses. The affected sample results are associated LCS recoveries that are less than the lower acceptance limits but are above 10%.

Laboratory and Field Duplicates

Laboratory and field duplicates collected for organic chemical analyses indicate acceptable precision for all analyses.

Trip Blanks, Field Blanks, and Rinsate Blanks

Trip blank samples are not collected during VOC SUMMA sampling.

One equipment rinsate blank collected on March 28, 2008, for EPA Method TO-15 analysis contained detectable amounts of 1,2-dichloroethane; tetrachloroethene; 1,1,1-trichloroethane; and trichloroethene. Three field blanks collected on April 4, and April 8, 2008, contained detectable amounts of chloroform; 1,1-dichloroethene; 1,2-dichloropropane; ethylbenzene; methylene chloride; tetrachloroethene; toluene; 1,1,2-trichloro-1,2,2-trifluoroethane; 1,1,1-trichloroethane; trichloroethene; and total xylene. Equipment blank concentrations within 5 times the concentration of samples analyzed indicate that the analyte detected in these samples could be the result of contamination. Detected field blank results do not impact the investigation or site status.

A-4.0 RADIONUCLIDE ANALYSES

Maintenance of COC

COC was properly maintained for all samples.

Sample Documentation and Dilutions

Samples were properly documented in the field.

Sample Preservation

Preservation criteria were met for all samples.

Holding Times

Holding times were met for all radionuclide analyses.

Initial and Continuing Calibration Verification

Initial and continuing calibrations are acceptable for all radionuclide analyses.

Analyte Identification

Analyte identification criteria were met for all radionuclide analyses.

Analyte Quantitation

Analyte quantitation criteria were met for all radionuclide analyses.

Method Blanks

The method blank results for radionuclide analyses were within acceptable limits all sample results.

Matrix Spike Recoveries

The matrix spike recoveries for radionuclide analyses were within acceptable limits for all the analyses.

Carrier and Tracer Recoveries

Tracer and carrier recoveries for radionuclide analyses were within acceptable limits for all analyses.

LCS Recoveries

The LCS recoveries for radionuclide analyses were within acceptable limits for all analyses.

Laboratory and Field Duplicates

Laboratory duplicates collected for all radionuclide analyses indicate acceptable precision.

Field duplicates collected for radionuclide analyses indicate that three results were not in control. The DER was above 3 for three results. Results are not qualified based of field duplicate precision. Samples potentially affected by field blank and equipment blank contamination are presented in Table 4.0-1.

Trip, Field, and Rinsate Blanks

Field blank samples were not collected for radionuclide analyses.

A-5.0 FIELD-MONITORING SUMMARY

Field-monitoring data are less costly to generate than laboratory data and are immediately available to guide field decisions. Field-monitoring results are generated by rapid methods of analysis that provide

less precision than laboratory analyses. Field-monitoring data provide analyte (or at least chemical class) identification and quantification, although the quantification may be relatively imprecise.

Field monitoring of subsurface vapor monitoring at MDA L is conducted using guidance provided in SOP-06.31, "Sampling of Subatmospheric Air, Revision 2." This procedure covers the use of the Brüel and Kjær (B&K) Type 1302 multigas analyzer and Landtec GEM 500 photoionization detector (PID).

The B&K is calibrated annually by a certified calibration laboratory. The B&K is adjusted before each day's use to compensate for ambient pressure and temperature. Calibration is confirmed before each day's use by analyzing readings of ambient air and triplicate readings of known quantities of mixed organic analytes in nitrogen. These calibration verification check analyses confirm analytical stability, confirm that the instrument zero point for each analyte is correctly set, and confirm that the stored calibration curve remains applicable to current instrument response to the presence of organic analytes. Concentrations of calibration standards analyzed before each day's use are expected be within ±20% of their known values. Additionally, during each sample analyses, a low sample flow condition triggers an alarm on the B&K and VOC measurement is then not completed.

The presence of nontarget organic chemicals bias B&K target analyte results if they have an acoustic response to infrared light that is similar to the target analyte. Trichlorofluoromethane (Freon-11) generates a measurable acoustic signal in response to light with a wavelength of 11.6 µm that is proportional to its concentration. Other VOCs generating an accoustic signal to light at this wavelength include Freon-114 (CAS 76-14-2; 1,2-dichloro-1,1,2,2-tetrafluoroethane) and Freon-21 (CAS 75-43-4), which are not reported by EPA Method TO-15. Tetrachloroethene (PCE) generates an acoustic signal in response to light with a wavelength of 11.1 µm. Other VOCs responding to light at this wavelength include styrene (CAS 100-42-5); Freon-113 (CAS 76-13-1), which is not reported by EPA Method TO-15; Freon-12 (CAS 75-71-8, dichlorodifluoromethane); ethanol (CAS 64-17-5); and 1,1-dichloroethene (CAS 75-35-4). EPA Method TO-15 analytical results indicate that 1,1-dichloroethene and Freon-113 are present in most samples at MDA L at detectable concentrations that would be included in the signal interpreted as PCE. Table A-4.0-1 presents VOCs that interfere with each of the four B&K target analytes.

Analytical data generated using the B&K Type 1302 are supported by annual calibration records that bracket the periods of analyses. Calibration information is reported below for each of the two B&K photoacoustic analyzers used to generate results presented in this periodic monitoring report.

- The B&K with serial number 1692083 was calibrated on July 3, 2007. The zero point was set for 1,1,1-trichloroethane (TCA); trichloroethene (TCE); Freon-11; PCE; carbon dioxide (CO_2); and water (H_2O). Span concentrations of TCA at 61.4 ppm, TCE at 8.1 ppm, Freon-11 at 53 ppm; PCE at 19.24 ppm, and CO_2 at 1265 ppm were used to generate calibration response curves.
- The B&K with serial number 1732805 was calibrated on July 12, 2007. The zero point was set for TCA, TCE, Freon-11, PCE, CO_2, and H_2O. Span concentrations of TCA at 47.1 ppm, TCE at 49.7 ppm, Freon-11 at 53.0 ppm, PCE at 48.4 ppm, and CO_2 at 0.126% were used to generate calibration response curves.

The Landtec GEM 500 PID is calibrated annually by a certified calibration laboratory. During calibration, methane (CH_4), oxygen (O_2), and CO_2 zero points are set, and each analyte's calibration response curves are developed. The CH_4 reading is filtered to an infrared absorption frequency of 3.41 mm (nominal), the frequency specific to hydrocarbon bonds. Landtec instruments are calibrated using certified CH_4 mixtures and will give correct readings provided there are no other hydrocarbon gasses present within the sample (e.g., ethane, propane, butane, etc.). If there are other hydrocarbons present, the CH_4 reading will be higher (never lower) than the actual CH_4 concentration being monitored. The extent to which the CH_4 reading is affected depends upon the concentration of the CH_4 in the sample and the concentration of the

other hydrocarbons. The effect of other hydrocarbons is nonlinear and difficult to predict. The CO_2 reading is filtered to an infrared absorption frequency of 4.29 µm (nominal), the frequency specific to CO_2. Therefore, any other gases usually found on landfill sites will not affect the CO_2 reading. The O_2 sensor is a galvanic cell type and suffers no influence from CO_2, CO_2, hydrogen sulfide, nitrate, sulfide, or hydrogen.

Calibration is confirmed before each day's use by analyzing multiple readings of ambient air. Zero readings of CH_4 and CO_2 are expected. Oxygen is expected to read 20.9%. Oxygen readings within ± 25% of 20.9% are considered acceptable.

Analytical data generated using the Landtec GEM-500 PID is supported by annual calibration records that bracket the periods of analyses. Calibration is performed by Geotech's Colorado Service Center, in Denver, Colorado. Calibration information is reported below for the four Landtec PIDs used to generate results presented in this periodic monitoring report.

- Unit 1139 was calibrated on March18, 2008. The zero point was set for CH_4, CO_2, and O_2. Calibration was performed so that CH_4 and CO_2 reached ±15% of a known concentration, and O_2 was set to read ambient air at 20.9%. Pump flow was confirmed to be 500 cc per min.
- Unit 903 was calibrated on March 19, 2008. The zero point was set for CH_4, CO_2, and O_2. Calibration was performed so that CH_4 and CO_2 reached ±15% of a known concentration, and O_2 was set to read ambient air at 20.9%. Pump flow was confirmed to be 500 cc per min.

A-6.0 REFERENCES

The following list includes all documents cited in this appendix. Parenthetical information following each reference provides the author(s), publication date, and ER ID number. This information is also included in text citations. ER ID numbers are assigned by the Environmental Programs Directorate's Records Processing Facility (RPF) and are used to locate the document at the RPF and, where applicable, in the master reference set.

Copies of the master reference set are maintained at the NMED Hazardous Waste Bureau; the U.S. Department of Energy–Los Alamos Site Office; EPA, Region 6; and the Directorate. The set was developed to ensure that the administrative authority has all material needed to review this document, and it is updated with every document submitted to the administrative authority. Documents previously submitted to the administrative authority are not included.

EPA (U.S. Environmental Protection Agency), February 1994. "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," EPA-540/R-94/013, Office of Emergency and Remedial Response, Washington, D.C. (EPA 1994, 048639)

EPA (U.S. Environmental Protection Agency), 1997. "Test Methods for Evaluating Solid Waste, Laboratory Manual, Physical/Chemical Methods," SW-846, 3rd ed., Update III, Office of Solid Waste and Emergency Response, Washington, D.C. (EPA 1997, 057589)

EPA (U.S. Environmental Protection Agency), October 1999. "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," EPA540/R-99/008, Office of Emergency and Remedial Response, Washington, D.C. (EPA 1999, 066649)

LANL (Los Alamos National Laboratory), March 1996. "Quality Assurance Project Plan Requirements for Sampling and Analysis," Los Alamos National Laboratory document LA-UR-96-441, Los Alamos, New Mexico. (LANL 1996, 054609)

LANL (Los Alamos National Laboratory), December 2000. "University of California, Los Alamos National Laboratory (LANL), I8980SOW0-8S, Statement of Work for Analytical Laboratories," Rev. 1, Los Alamos National Laboratory, Los Alamos, New Mexico. (LANL 2000, 071233)

Table A-1.0-1
Data Analysis and Assessment Procedures

Procedure	Title	Effective Date
SOP-15.01, Rev. 1	Routine Validation of Volatile Organic Data	4/20/2004
SOP-15.07, Rev. 1	Routine Validation of Chemical Separation Alpha Spectrometry, Gas Proportional Counting, and Liquid Scintillation Data	4/20/2004

Table A-1.0-2
Definition of Data Qualifiers Used in Data Validation

Qualifier	Explanation
U	The analyte was analyzed for but not detected. Reported value is the sample-specific EQL or detection limit.
J	The reported value should be regarded as estimated.
J+	The reported value should be regarded as estimated and biased high.
J-	The reported value should be regarded as estimated and biased low.
UJ	The analyte was analyzed for but not detected. Reported value is an estimate of the sample-specific quantitation limit or detection limit.
R	The sample results were rejected because of serious deficiencies in the ability to analyze the sample and meet quality-control criteria; presence or absence cannot be verified.

Table A-2.0-1
Analytical Method Used for Organic Chemical Analyses

Analytical Method	Analytical Description	Target Compound List
EPA Method TO-15 Sampling and Analysis	VOCs in air	See analytical services statement of work (LANL 2000, 071233).
EPA Method 906.0	Tritium analysis	See analytical services statement of work (LANL 2000, 071233).

Table A-4.0-1
Sample Records Potentially Affected by Detected Field Duplicate Results

Location ID	Sample Depth (ft)	Sample Result (pCi/L)	Sample Precision	Sample Qualifier	Field Duplicate Result (pCi/L)	Field Duplicate Precision	Field Duplicate Qualifier	DER
54-02025	190–190	297.279	74.197	—*	-78.319	69.476	U	3.69
54-24241	192–194	1416.14	208.512	—	638.883	145.489	—	3.06
54-24399	550–608	225.096	123.984	U	9642.05	1017.24	—	9.19

*— The result was detected without qualification.

Table A-4.0-1
B&K Target Analytes
and Potential Interfering Analytes

Target	Potential Interfering Analyte
PCE	Styrene
PCE	Freon-113
PCE	Freon-12
PCE	1,1-Dichloroethene
PCE	Ethylene oxide
PCE	Ethanol
PCE	Dipropylnitrosamine
PCE	1,1-Dimethylhydrazine
PCE	1,4-Diethylene dioxide
PCE	Cyclohexene
PCE	tert-Butyl alcohol
PCE	m-Vinyltoluene
PCE	Vinyl chloride
PCE	Tetrahydrofurane
PCE	Silicium tetrafluoride
PCE	Nitromethane
PCE	Nitrogen trifluoride
PCE	α-Methylstyrene
PCE	Monomethyl hydrazine
PCE	Methyl iodide
PCE	n-Hexane
PCE	Acetic anhydride
PCE	1,3-Butadiene
Freon 11	Freon-114
Freon 11	Freon-21
Freon 11	Carbonyl sulphide
Freon 11	Methyl acetate
Freon 11	Chloropicrine
Freon 11	Cyclohexane
Freon 11	Dimethylnitrosamine
Freon 11	Epichlorohydrine
Freon 11	Ethane
Freon 11	Ethylene oxide
Freon 11	Ethyl formate
Freon 11	2-Nitropropane
Freon 11	Phosgene

Table A-4.0-1 (continued)

Target	Potential Interfering Analyte
Freon 11	Vinyl acetate
TCA	Fluorobenzene
TCA	Ethyl benzene
TCA	Dimethyl formamide
TCA	Dichloromethane
TCA	1,2-Dichloroethane
TCA	o-Dichlorobenzene
TCA	Dibutyl phthalate
TCA	Chloromethane
TCA	m-Xylene
TCA	1,1,2-Trichloroethane
TCA	o-Toluidine
TCA	Toluene
TCA	Phenol
TCA	Chlorobenzene
TCA	Carbon dioxide
TCA	Boron trifluoride
TCA	Aniline
TCA	Acetophenone
TCA	Hydrogen cyanide
TCA	n-Heptane
TCE	Arsine
TCE	Butanone
TCE	Freon-152
TCE	Diethyl ketone
TCE	Dinitrogendifluoride
TCE	2-Pentanone
TCE	2-Propanol
TCE	Sulfur hexafluoride
TCE	Vinyl chloride

Appendix B

Data Packages and Chain-of-Custody Forms
(on CD included with this document)