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Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T, Consolidated Unit 21-016(a)-99, at Technical Area 21, July to September 2010

Los Alamos
NATIONAL LABORATORY
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EXECUTIVE SUMMARY

This periodic monitoring report summarizes vapor-monitoring activities conducted from July to September 2010 at Material Disposal Area (MDA) T, Consolidated Unit 21-016(a)-99, in Technical Area 21, at Los Alamos National Laboratory. The objectives of vapor-monitoring at MDA T are (1) to collect additional samples from vapor-monitoring wells at MDA T and (2) to compare the results with previously detected volatile organic compound (VOC) concentrations and tritium activities in pore gas beneath MDA T.

Vapor monitoring included field screening and collecting vapor samples from 34 sampling ports within 5 monitoring wells. Vapor samples were submitted for laboratory analysis of VOCs and tritium. A total of nine VOCs were detected in MDA T pore gas during the July to September 2010 sampling event, and the results are consistent with previous sampling results. The VOC screening evaluation identified two VOCs, methylene chloride and 1,1,2-trichloroethane, in MDA T pore gas at concentrations greater than screening values based on applicable regulatory criteria. No regulatory criteria exist for pore gas; therefore, this screening evaluation is a conservative comparison with groundwater screening levels to help evaluate any potential for groundwater contamination by VOCs. All VOC concentrations in the deepest port sampled at MDA T were low or nondetect and did not exceed screening values. Therefore, current VOC concentrations detected at MDA T are not high enough to result in groundwater contamination above applicable regulatory criteria.

Tritium activities in all vapor-monitoring wells are consistent with activities reported in previous monitoring events.

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1.0 INTRODUCTION

This report presents the results of vapor-monitoring activities conducted from July to September 2010 at Material Disposal Area (MDA) T, Consolidated Unit 21-016(a)-99, in Technical Area 21 (TA-21), at Los Alamos National Laboratory (LANL or the Laboratory). These activities are being conducted per the requirements outlined in the MDA T vapor-monitoring plan and the associated New Mexico Environment Department (NMED) approval with modifications (LANL 2007, 098944; NMED 2007, 098946) and the approved MDA T Phase III investigation work plan and associated NMED correspondence (LANL 2009, 105645; NMED 2009, 105691; NMED 2009, 106455).

The objectives of the MDA T vapor-monitoring activities are (1) to collect additional vapor samples from vapor-monitoring wells at MDA T and (2) to compare the results with previously detected volatile organic compound (VOC) concentrations and tritium activities beneath MDA T. No regulatory criteria exist for vapor-phase contaminants; therefore, this report presents the results of a screening evaluation of the pore-gas VOC data. This screening evaluation compares maximum concentrations of VOCs in pore gas with pore-gas screening levels (SLs) derived from groundwater SLs. This conservative screening process evaluates the potential for the observed VOC concentrations to result in contamination of groundwater above applicable regulatory criteria.

Vapor monitoring included field screening and collecting vapor samples from 34 stainless-steel sampling ports in five vapor-monitoring wells. All pore-gas samples were submitted for off-site analysis of VOCs and tritium.

This report presents and discusses the results obtained during the latest quarter of monitoring activities; vapor data presented in the previous three quarterly periodic monitoring reports for MDA T (October to December 2009, January to March 2010, and April to June 2010) are also included in the data evaluation section of this report for comparison.

Table 1.0-1 summarizes the history of vapor-sampling events completed at MDA T. Table 1.0-2 outlines NMED-approved vapor-monitoring locations, port depths, and corresponding port intervals for the latest monitoring quarter.

Information on radioactive materials and radionuclides, including the results of sampling and analysis of radioactive constituents, is voluntarily provided to NMED in accordance with U.S. Department of Energy policy.

1.1 Site Location and Description

MDA T is located within TA-21 on DP Mesa (Figure 1.1-1) and contains the following waste storage and disposal sites (Figure 1.1-2):

- four absorption beds (subsurface),
- multiple buried shafts (subsurface), and
- a former retrievable waste storage area (subsurface).

Current vegetation at MDA T includes grasses, chamisa bushes, and two young ponderosa pines. The top of the regional aquifer occurs approximately 1300 ft below MDA T, based on water-level information from regional monitoring well R-6 (Kleinfelder 2005, 091693). The MDA T investigation report (LANL

2006, 094151) presents further details regarding MDA T waste storage and disposal sites, operations, and historical investigation activities.

2.0 SCOPE OF ACTIVITIES

During the most recent sampling event, a total of 43 pore-gas samples (34 characterization and 9 quality assurance/quality control [QA/QC]) were collected for VOC analysis, and 43 tritium samples (34 characterization and 9 QA/QC) were collected for analysis from 9 out of 9 ports in well 21-25262; 5 out of 5 ports in well 21-25264; 4 out of 5 ports in well 21-603058; 5 out of 6 ports in 21-603059; and 11 out of 11 ports in well 21-607955. Field duplicate (FD) samples were collected at a minimum frequency of 1 for every 10 samples.

All samples were field screened and collected in accordance with the current version of Standard Operating Procedure (SOP) 5074, Sampling Subsurface Vapor, and submitted to off-site analytical laboratories in SUMMA canisters for VOC analysis using U.S. Environmental Protection Agency (EPA) Method TO-15 and gel columns for tritium analysis using EPA Method 906.0. Further discussion of the field methods used for pore-gas field-screening and sample collection are presented in Appendix B. Field chain-of-custody forms and sample collection logs are provided in Attachment D-1 of Appendix D (on CD included with this report).

All analytical data were subject to QA/QC and data validation reviews in accordance with Laboratory guidance and procedures. The QA/QC and data validation review for MDA T pore-gas data are presented in Appendix C. All validated analytical results from the July to September 2010 pore-gas sampling are presented in Attachment D-1. Similar detail regarding vapor data collected during sampling previous three monitoring periods is presented in the October to December 2009, January to March 2010, and April to June 2010 periodic monitoring reports (LANL 2010, 109254; LANL 2010, 110059; LANL 2010, 111121).

No investigation-derived waste was generated at the time vapor-monitoring activities were conducted at MDA T.

The pore-gas field-screening results are discussed in section 4.0, and the pore-gas analytical results are discussed in section 5.0. Any deviations from the scope of activities presented in the approved MDA T vapor-monitoring plan (LANL 2007, 098944; NMED 2007, 098946) and/or the approved MDA T Phase III investigation work plan (LANL 2009, 105645; NMED 2009, 105691; NMED 2009, 106455) are presented in the following section.

2.1 Deviations

Pore-gas samples were not collected from port 2 in either vapor-monitoring well 21-603058 or 21-603059 during the July to September 2010 sampling activities at MDA T. As previously reported, sampling port 2 (160.5–165.5 ft below ground surface [bgs]) in vapor-monitoring well 21-603058 stopped producing pore gas after February 2008 either because of a mechanical failure or because it was installed within unit 2 of the Bandelier Tuff, a densely welded unit, which may inhibit vapor flow (LANL 2009, 105187). Sampling port 2 (112.5–117.5 ft bgs) in vapor-monitoring well 21-603059 has never produced pore gas since it was installed, possibly because of its location within the same densely welded unit (unit 2 of the Bandelier Tuff) (LANL 2009, 105187). During every sampling period, the inoperability of these ports is verified during field screening.

3.0 REGULATORY CRITERIA

The Compliance Order on Consent does not identify any cleanup standards, risk-based SLs, risk-based cleanup goals, or other regulatory criteria for pore gas at MDA T. Because the primary pathway of concern for subsurface VOC vapors is migration to groundwater, an analysis was conducted to evaluate the potential for contamination of groundwater by VOCs in pore gas using SLs based on groundwater cleanup levels. The analysis evaluated the groundwater concentration that would be in equilibrium with the maximum pore-gas concentrations of VOCs detected at MDA T.

The equilibrium relationship between air (pore gas) and water concentrations is described by the following equation:

$$C_{water} = C_{air} / H' \qquad \textbf{Equation 3.0-1}$$

where C_{water} = the volumetric concentration of contaminant in water,

C_{air} = the volumetric concentration of contaminant in air, and

H' = dimensionless form of Henry's law constant.

If the predicted concentration of a particular VOC in groundwater is less than the SL, then no potential exists for exceedances above applicable regulatory criteria at the vapor contaminant/groundwater interface.

The screening evaluation was based on groundwater standards or tap water SLs and Henry's law constants that describe the equilibrium relationship between vapor and water concentrations. The source of the Henry's law constants is the NMED technical background document (NMED 2009, 108070) or the EPA regional screening tables (http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/pdf/master_sl_table_run_NOVEMBER2010.pdf). The following dimensionless form of Henry's law constant was used:

$$H' = \frac{C_{air}}{C_{water}} \qquad \textbf{Equation 3.0-2}$$

Equation 3.0-2 can be used to calculate the screening value (SV):

$$SV = \frac{C_{air}}{1000 \times H' \times SL} \qquad \textbf{Equation 3.0-3}$$

where C_{air} = in units of µg/m^3,

SL = in units of µg/L, and

1000 = a conversion factor from L to m^3.

The SLs are the groundwater standards or tap water SLs. The groundwater standards are the EPA maximum contaminant level (MCL) or New Mexico Water Quality Control Commission (NMWQCC) groundwater standard, whichever is lower. If no MCL or NMWQCC standard is available, the NMED tap water SL should be used (NMED 2009, 108070). If no NMED tap water SL is available, the EPA regional tap water SL (http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/pdf/master_sl_table_run_NOVEMBER2010.pdf) is used. If EPA SLs for carcinogens are used, they should be adjusted to 10^{-5} risk. The numerator in Equation 3.0-3 is the actual concentration of the VOC in pore gas, and the denominator represents the pore-gas concentration needed to exceed the groundwater SL. Therefore, if the SV is less than 1, the concentration of the VOC in groundwater would not exceed the SL, even if the VOC plume were to come in contact with groundwater. Table 3.0-1 presents the calculated concentrations of contaminants in pore gas corresponding to groundwater SLs.

Results of the pore-gas screening evaluation are presented in section 5. No applicable standards for tritium in pore vapor are available, and the screening analysis described above does not apply to tritium.

4.0 FIELD-SCREENING RESULTS

Field screening was conducted using a MultiRAE IR Multi-Gas Monitor to measure percent carbon dioxide (%CO_2) and percent oxygen (%O_2). Before each port was sampled, it was purged of stagnant air to ensure formation air was being collected. Each sampling port was then monitored until CO_2 and O_2 readings stabilized at levels representative of subsurface pore-gas conditions. A tabular summary of all field-screening results obtained during the October to December 2009, January to March 2010, April to June 2010, and July to September 2010 sampling events at MDA T is provided in Appendix D by vapor-monitoring well and depth. The CO_2 and O_2 field-screening methods and results are discussed further in Appendix B. The CO_2 and O_2 results for the latest sampling event, July to September 2010, were within calibration limits.

5.0 ANALYTICAL DATA RESULTS

All vapor analytical sampling data presented in this report are available at the Risk Analysis, Communication, Evaluation, and Reduction (RACER) website (http://www.racernm.com/). The VOC pore-gas sampling results, VOC screening evaluation, and tritium sampling results are discussed below.

5.1 VOC Pore-Gas Results

VOC results from the latest and previous three vapor-monitoring quarters are summarized in tables and are provided in Appendix D. Figure 5.1-1 shows VOCs detected by borehole location during the latest sampling event. Data associated with October to December 2009, January to March 2010, and April to June 2010 are included for comparison purposes only.

A total of nine VOCs were detected in MDA T pore gas during the July to September 2010 sampling activities, and the results are consistent with previous sampling results. Five VOCs, methylene chloride, carbon tetrachloride, chloroform, trichloroethene (TCE), and tetrachloroethene (PCE), were consistently detected at the greatest concentrations relative to other detected VOCs during the latest monitoring period. Concentration with depth profiles for each of these five VOCs collected during the latest sampling event and the previous three quarters are presented for vapor-monitoring wells 21-25262 and 21-607955 in Figures 5.1-2 to 5.1-6.

Depth profiles provide a visual comparison of VOC concentration at depth. Vapor-monitoring well 21-25262 and 21-607955 are the deepest wells sampled at MDA T, with a total depth (TD) of 950 ft bgs in 21-607955 and 690 ft bgs in 21-25262. Based on a visual comparison of the data at depth, concentrations of the five VOCs detected at greatest concentrations are consistent each quarter. Furthermore, the concentrations decrease significantly with depth to low and nondetect concentrations at TD.

5.2 VOC Screening Evaluation

The screening evaluation included the nine detected VOCs in MDA T samples for which MCLs, NMWQCC standards, NMED tap water SLs, or EPA regional tap water SLs are available (Table 3.0-1).

The results of the VOC screening evaluation are presented in Table 5.2-1. The SVs were less than 1.0 for all detected VOCs, except for methylene chloride and 1,1,2-trichloroethane. The concentrations of methylene chloride in 15 out of 34 samples collected resulted in SVs greater than 1.0, with a maximum SV of 4.62. This maximum concentration was detected in vapor-monitoring well 21-607955 at a depth of 355 ft bgs. The concentration of 1,1,2-trichloroethane in 1 out of 34 samples collected resulted in SVs greater than 1.0, with a maximum SV of 1.24. This maximum concentration was detected in vapor-monitoring well 21-25262 at 475 ft bgs.

Methylene chloride and 1,1,2-trichloroethane decreased from maximum concentrations with depth to TD in vapor-monitoring wells 21-607955 and 21-25262. Neither methylene chloride nor 1,1,2-trichloroethane was detected in the deepest sample collected during this sampling event (949 ft bgs in vapor-monitoring well 21-607955).

5.3 Pore-Vapor Tritium Results

Tritium results from the latest and previous three vapor-monitoring quarters are summarized in tables and provided in Appendix D. Figure 5.3-1 shows tritium detected by borehole location during the latest sampling event. Figure 5.3-2 shows tritium activity with depth during the latest and previous three sampling events for the two deep vapor-monitoring wells 21-25262 and 21-607955. Tritium activities detected during the latest sampling quarter are consistent with activities reported during previous sampling events (October to December 2009, January to March 2010, and April to June 2010). Tritium activities decrease significantly below 400 ft bgs.

6.0 SUMMARY

The objectives of the MDA T vapor-monitoring activities are (1) to collect additional vapor samples from boreholes at MDA T and (2) to compare the results with previously detected VOC concentrations and tritium activities beneath MDA T. The results of the most recent monitoring activities compare well with those reported during previous monitoring activities.

A total of nine VOCs and tritium were detected in the pore gas beneath MDA T. Concentrations for most VOCs detected in MDA T pore gas decreased with depth, were consistently detected at low concentrations, or were infrequently detected. These results are consistent with data obtained during previous three sampling events (October to December 2009, January to March 2010, and April to June 2010).

Methylene chloride and 1,1,2-trichloroethane were the only two detected VOCs with SVs greater than 1. Both VOC concentrations compare well with previous sampling events and decrease with depth to TD in the deepest vapor-monitoring wells at MDA T. No regulatory criteria exit for pore gas; therefore, this screening evaluation is a conservative comparison with groundwater SLs to help evaluate any potential for groundwater contamination by VOCs. Based on the SVs at TD, the VOC concentrations detected at MDA T during the latest sampling event are not high enough to result in groundwater contamination above applicable regulatory criteria.

Tritium activities also are consistent with activities obtained during previous three sampling events. Activities decrease with depth and are not detected at TD in the deepest vapor-monitoring wells.

Vapor-monitoring activities are scheduled to continue at MDA T per the requirements outlined in the approved MDA T Phase III investigation work plan (LANL 2009, 105645; NMED 2009, 106455; NMED 2009, 105691) and the NMED approval with modifications letter (NMED 2010, 109021) and will be presented in subsequent monitoring and investigation reports.

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. This information is also included in text citations. ER IDs 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 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.

Kleinfelder, April 2005. "Final Completion Report, Characterization Wells R-6/R-6i," report prepared for Los Alamos National Laboratory, Project No. 37151, Albuquerque, New Mexico. (Kleinfelder 2005, 091693)

LANL (Los Alamos National Laboratory), September 2006. "Investigation Report for Material Disposal Area T, Consolidated Unit 21-016(a)-99, at Technical Area 21," Los Alamos National Laboratory document LA-UR-06-6506, Los Alamos, New Mexico. (LANL 2006, 094151)

LANL (Los Alamos National Laboratory), October 2007. "Subsurface Vapor-Monitoring Plan for Material Disposal Area T at Technical Area 21," Los Alamos National Laboratory document LA-UR-07-7037, Los Alamos, New Mexico. (LANL 2007, 098944)

LANL (Los Alamos National Laboratory), February 2009. "Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T, Consolidated Unit 21-016(a)-99, Technical Area 21, Fiscal Year 2008," Los Alamos National Laboratory document LA-UR-09-0791, Los Alamos, New Mexico. (LANL 2009, 105187)

LANL (Los Alamos National Laboratory), April 2009. "Phase III Investigation Work Plan for Material Disposal Area T, Consolidated Unit 21-016(a)-99," Los Alamos National Laboratory document LA-UR-09-2140, Los Alamos, New Mexico. (LANL 2009, 105645)

LANL (Los Alamos National Laboratory), July 2009. "Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T, Consolidated Unit 21-016(a)-99, at Technical Area 21, February and April 2009," Los Alamos National Laboratory document LA-UR-09-4674, Los Alamos, New Mexico. (LANL 2009, 106665)

LANL (Los Alamos National Laboratory), October 2009. "Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T, Consolidated Unit 21-016(a)-99, at Technical Area 21, June to August 2009," Los Alamos National Laboratory document LA-UR-09-6878, Los Alamos, New Mexico. (LANL 2009, 107448)

LANL (Los Alamos National Laboratory), January 2010. "Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T, Consolidated Unit 21-016(a)-99, at Technical Area 21, September to November 2009," Los Alamos National Laboratory document LA-UR-10-0409, Los Alamos, New Mexico. (LANL 2010, 108529)

LANL (Los Alamos National Laboratory), April 2010. "Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T, Consolidated Unit 21-016(a)-99, at Technical Area 21, October to December 2009," Los Alamos National Laboratory document LA-UR-10-2421, Los Alamos, New Mexico. (LANL 2010, 109254)

LANL (Los Alamos National Laboratory), July 2010. "Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T, Consolidated Unit 21-016(a)-99, at Technical Area 21, January to March 2010," Los Alamos National Laboratory document LA-UR-10-3952, Los Alamos, New Mexico. (LANL 2010, 110059)

LANL (Los Alamos National Laboratory), October 2010. "Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T, Consolidated Unit 21-016(a)-99, at Technical Area 21, April to June 2010," Los Alamos National Laboratory document LA-UR-10-6803, Los Alamos, New Mexico. (LANL 2010, 111121)

NMED (New Mexico Environment Department), October 31, 2007. "Approval with Modifications, Subsurface Vapor-Monitoring Plan for MDA T," 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, 098946)

NMED (New Mexico Environment Department), May 4, 2009. "Approval with Modifications, Phase III Work Plan for Material Disposal Area T, Consolidated Unit 21-016(a)-99," 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 2009, 105691)

NMED (New Mexico Environment Department), May 26, 2009. "Correction, Approval with Modifications, Phase III Work Plan for Material Disposal Area T, Consolidated Unit 21-016(a)-99," 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 2009, 106455)

NMED (New Mexico Environment Department), December 2009. "Technical Background Document for Development of Soil Screening Levels, Revision 5.0," with revised Table A-1, New Mexico Environment Department, Hazardous Waste Bureau and Ground Water Quality Bureau Voluntary Remediation Program, Santa Fe, New Mexico. (NMED 2009, 108070)

NMED (New Mexico Environment Department), February 17, 2010. "Approval with Modifications, Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T, Consolidated Unit 21-016(a)-99, at Technical Area 21, June to August 2009," New Mexico Environment Department letter to M.J. Graham (LANL) and G.J. Rael (DOE-LASO) from J.P. Bearzi (NMED-HWB), Santa Fe, New Mexico. (NMED 2010, 109021)

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/Type	Data Source
LANL boundary	LANL Areas Used and Occupied; Los Alamos National Laboratory, Site Planning & Project Initiation Group, Infrastructure Planning Office; 19 September 2007; as published 13 August 2010.
TA boundary	Technical Area Boundaries; Los Alamos National Laboratory, Site Planning & Project Initiation Group, Infrastructure Planning Office; September 2007; as published 13 August 2010.
ER Projects	ER Project Locations; Los Alamos National Laboratory, ESH&Q Waste and Environmental Services Division, 2010-2E; 1:2,500 Scale Data; 04 October 2010.
MDAs	Materials Disposal Areas; Los Alamos National Laboratory, ENV Environmental Remediation and Surveillance Program; ER2004-0221; 1:2,500 Scale Data; 23 April 2004.
Paved Parking	Paved Parking; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 29 November 2010.
Paved road	Paved Road Arcs; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 29 November 2010.
Dirt road	Dirt Road Arcs; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 29 November 2010.
Road Centerlines	Road Centerlines; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 15 December 2005; as published 29 November 2010.
Structure	Structures; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 29 November 2010.
Contours	Hypsography, 10 and 100 Foot Contour Interval; 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 29 November 2010.
Drainage	Modeled Surface Drainage, 1991; Los Alamos National Laboratory, ENV Environmental Remediation and Surveillance Program, ER2002-0591; 1:24,000 Scale Data; Unknown publication date.

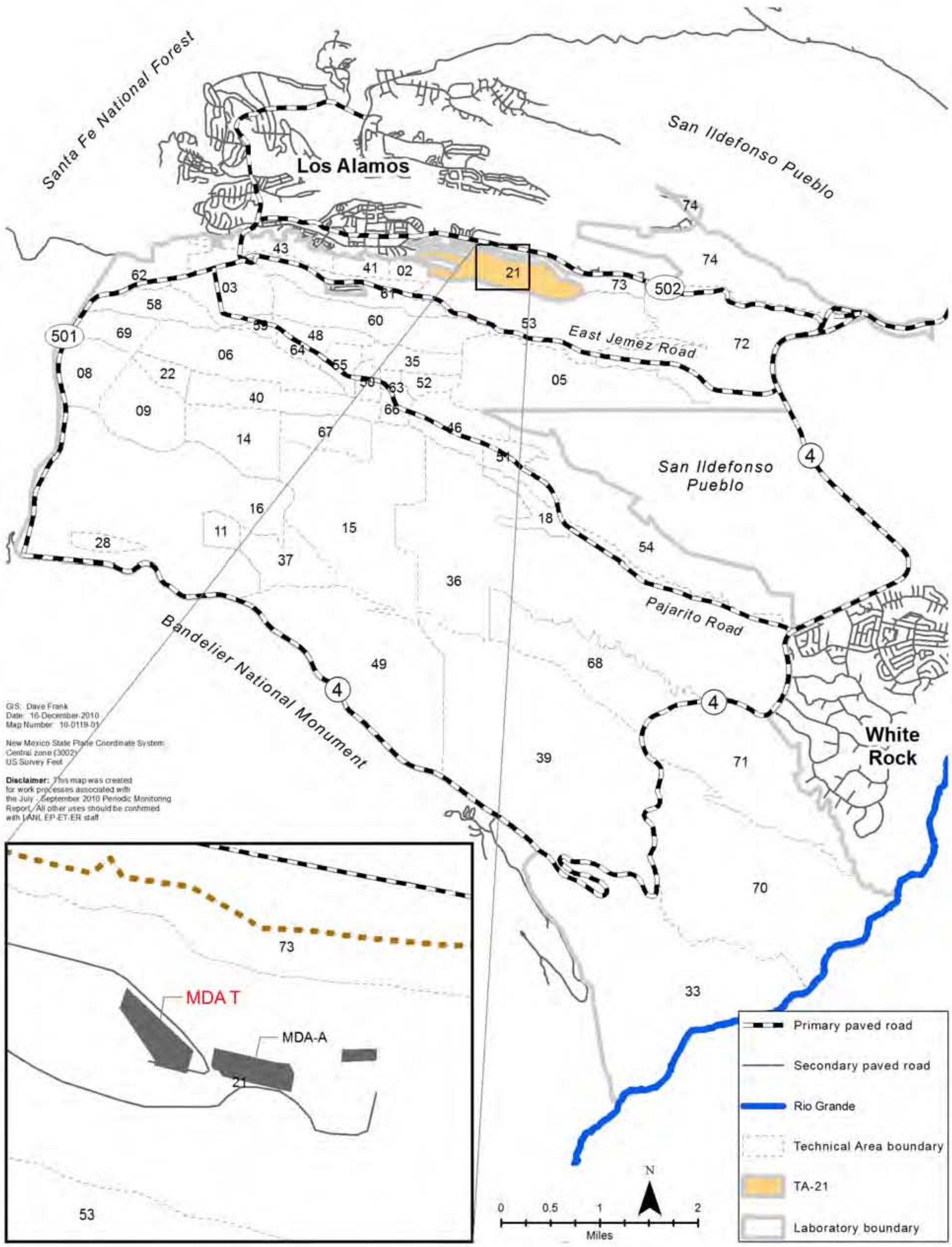

Figure 1.1-1 Location of MDA T in TA-21 with respect to Laboratory TAs and surrounding land holdings

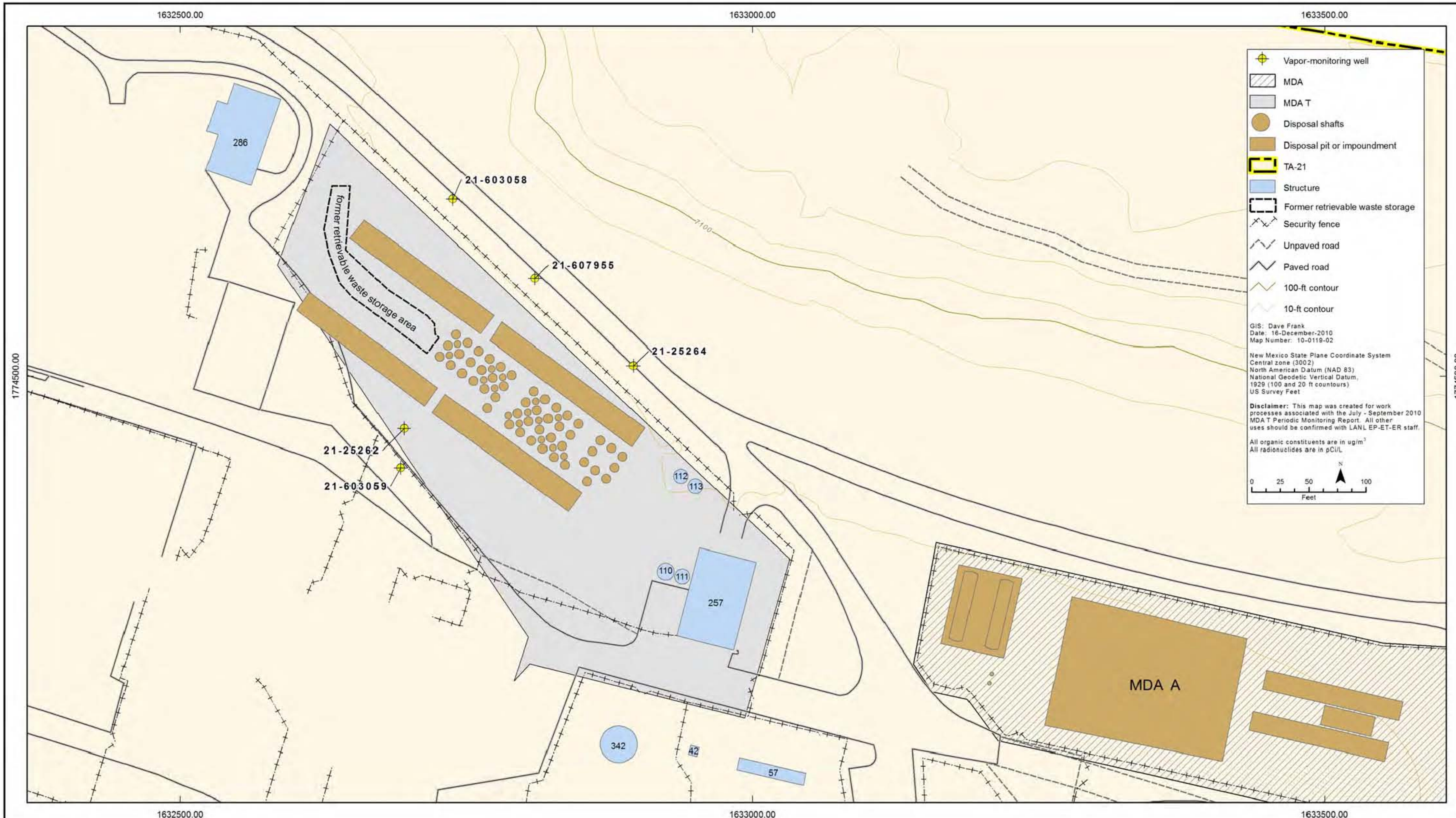

Figure 1.1-2 Locations of MDA T vapor-monitoring wells and associated structures and features

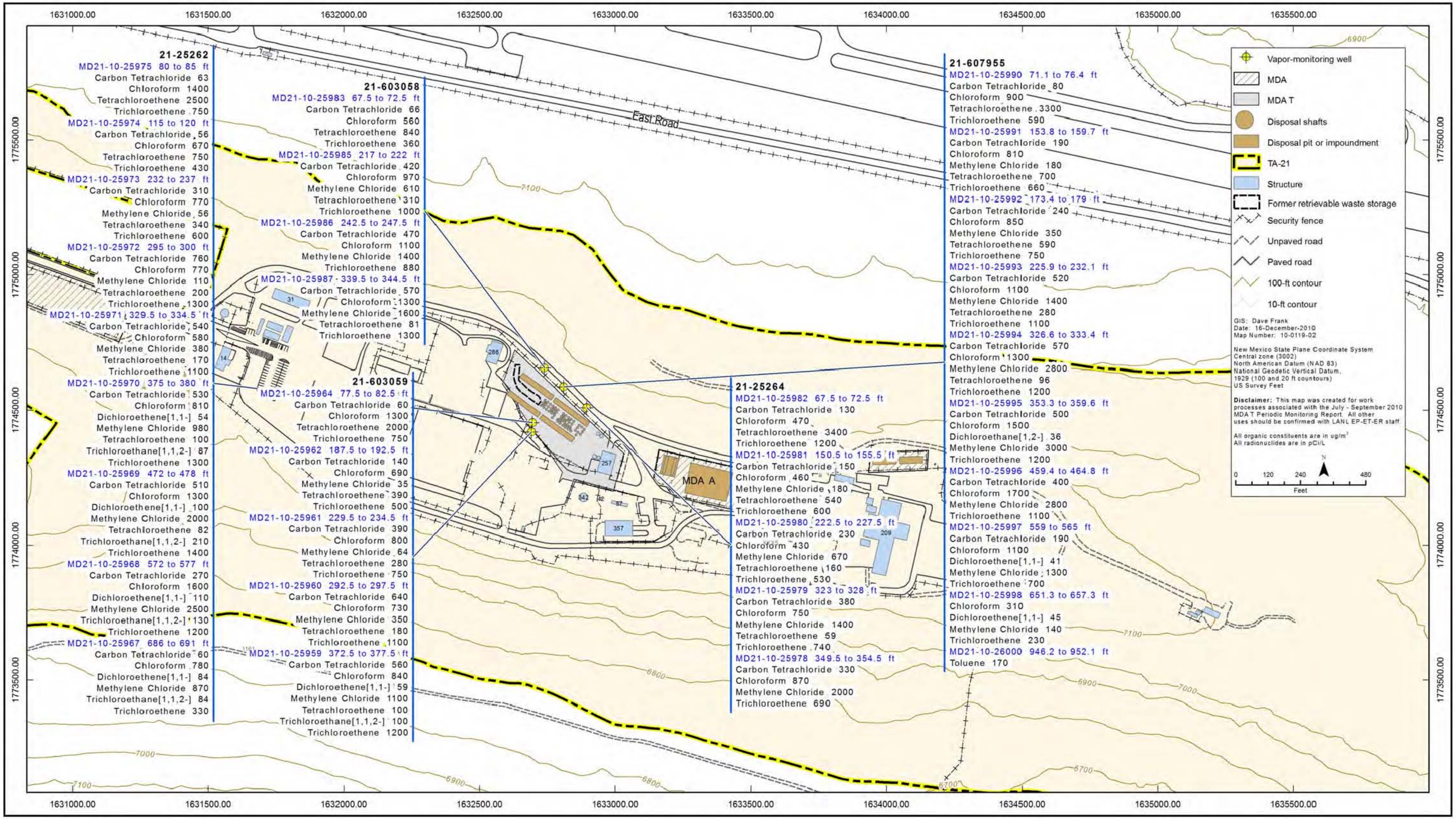

Figure 5.1-1 VOCs detected in vapor samples at MDA T

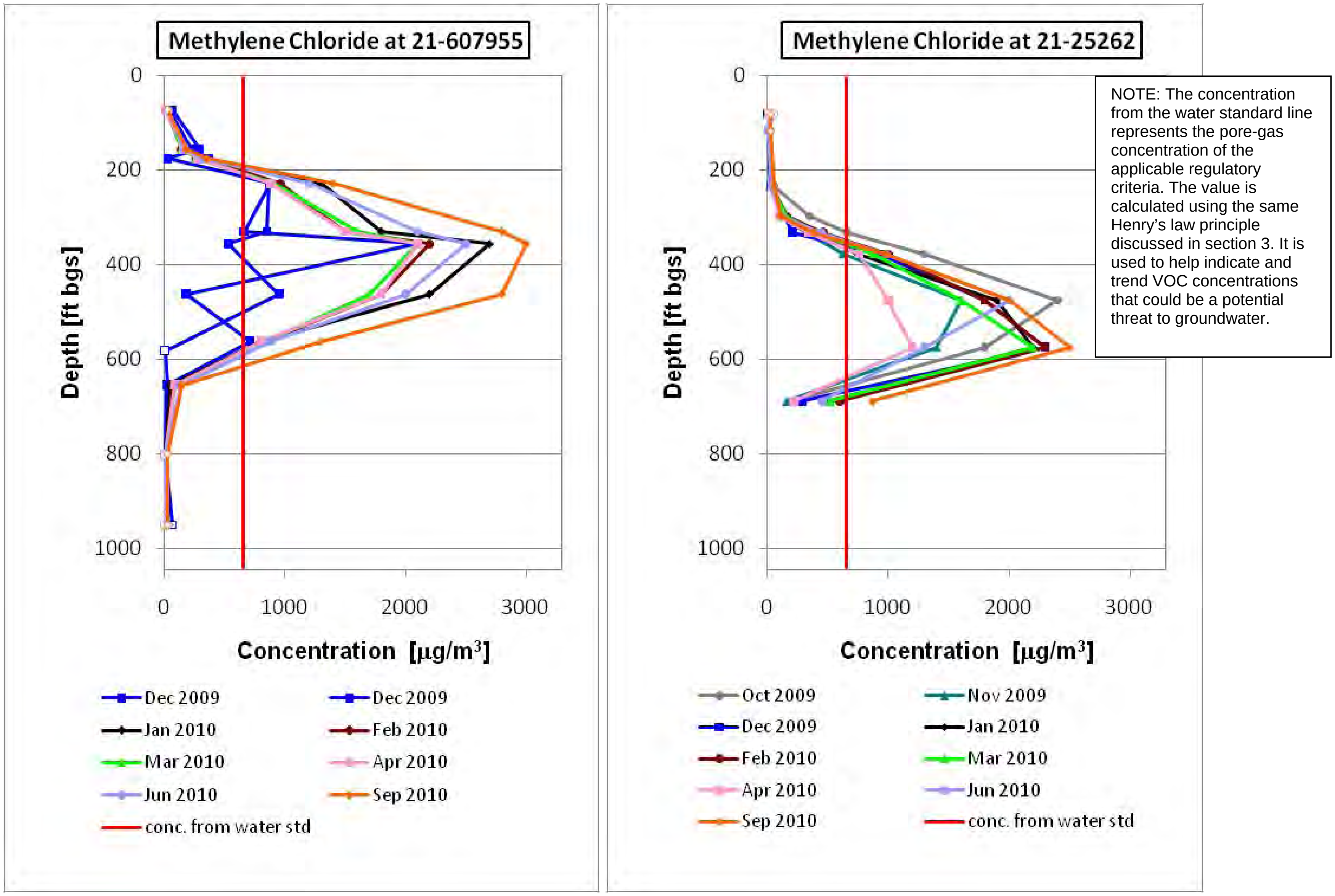

Figure 5.1-2 **Vertical profiles of methylene chloride in vapor-monitoring wells 21-607955 and 21-25262**

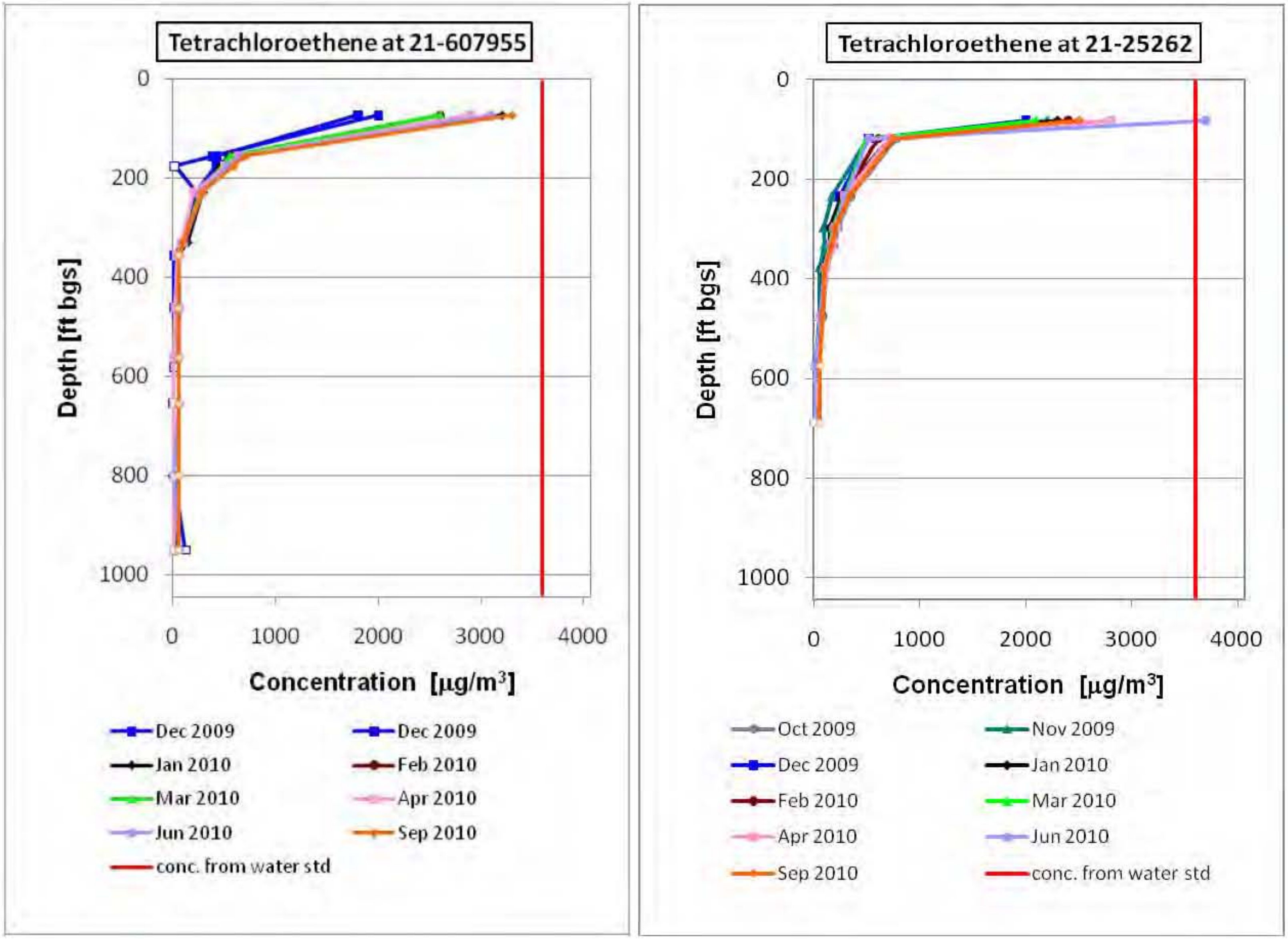

Figure 5.1-3 Vertical profiles of PCE in vapor-monitoring wells 21-607955 and 21-25262

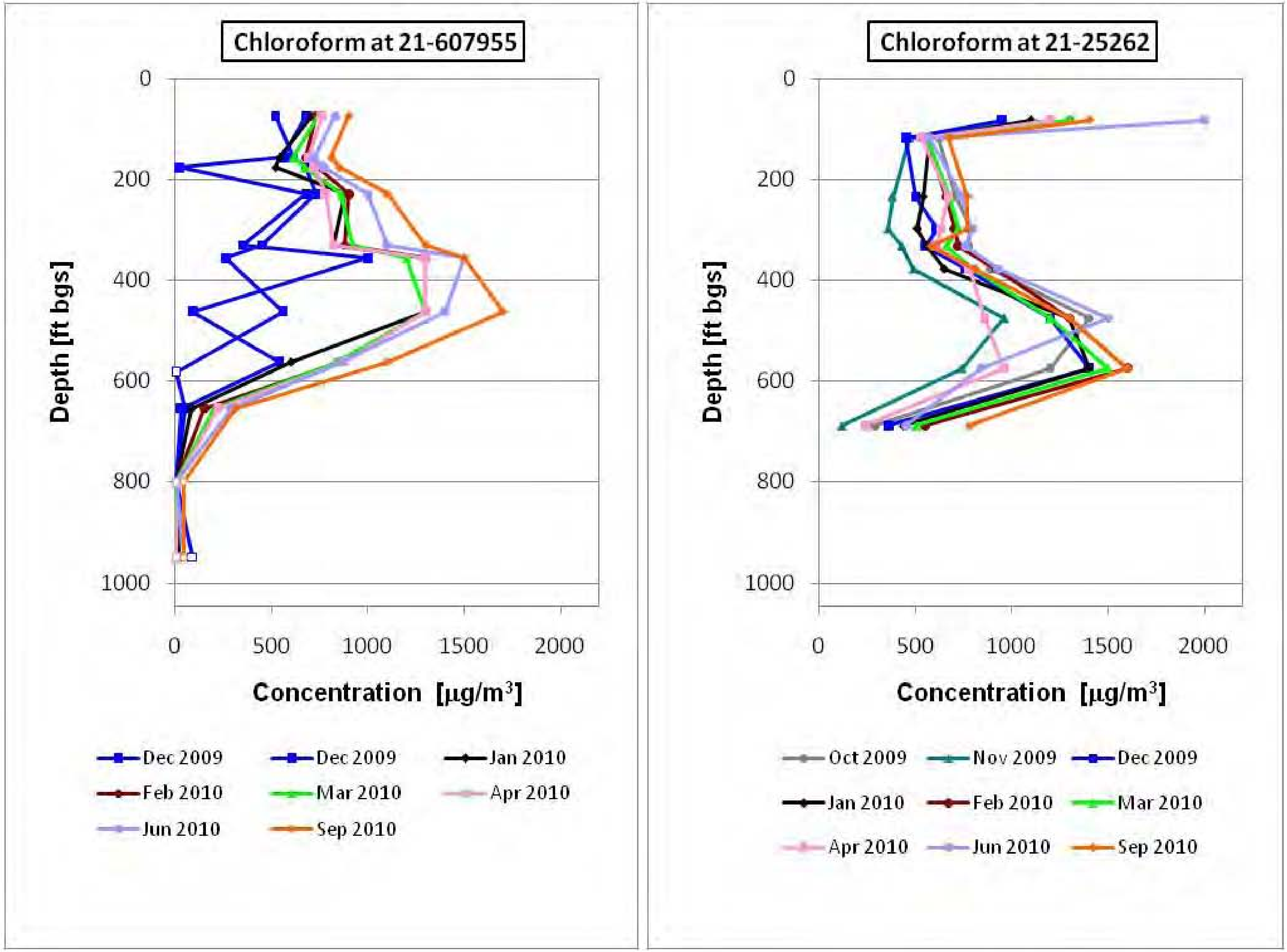

Figure 5.1-4 Vertical profiles of chloroform in vapor-monitoring wells 21-607955 and 21-25262

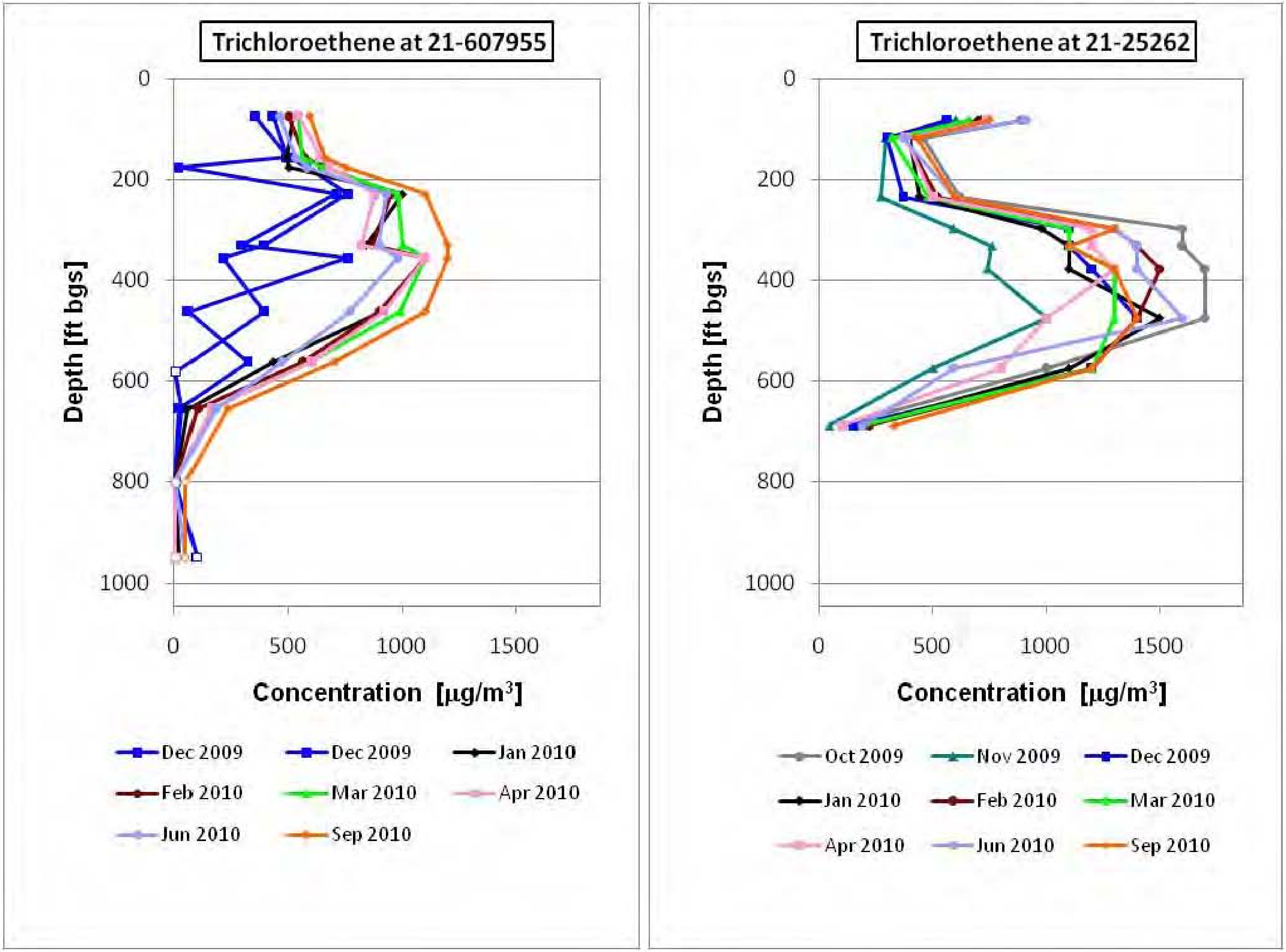

Figure 5.1-5 Vertical profiles of TCE in vapor-monitoring wells 21-607955 and 21-25262

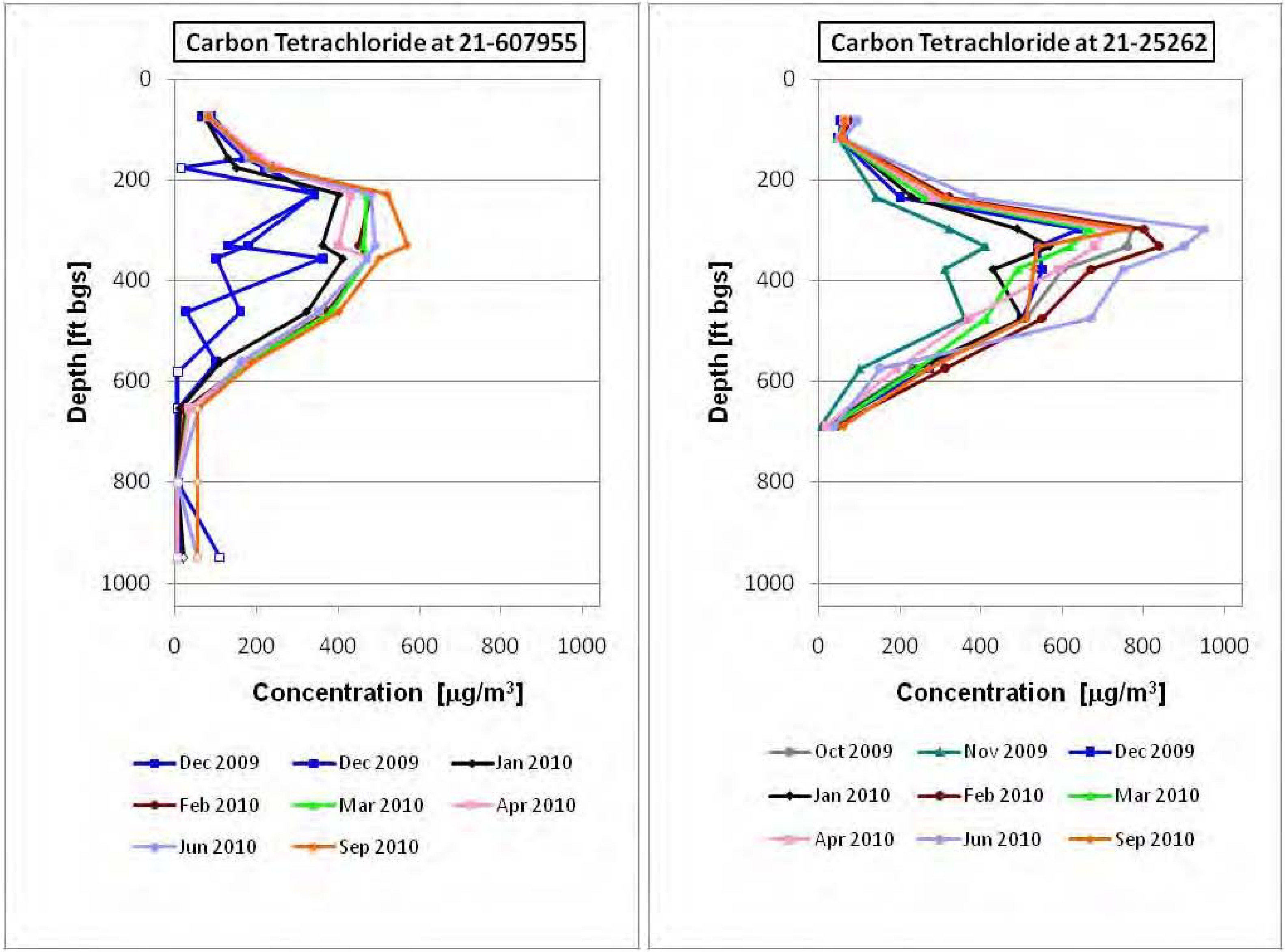

Figure 5.1-6 Vertical profiles of carbon tetrachloride in vapor-monitoring wells 21-607955 and 21-25262

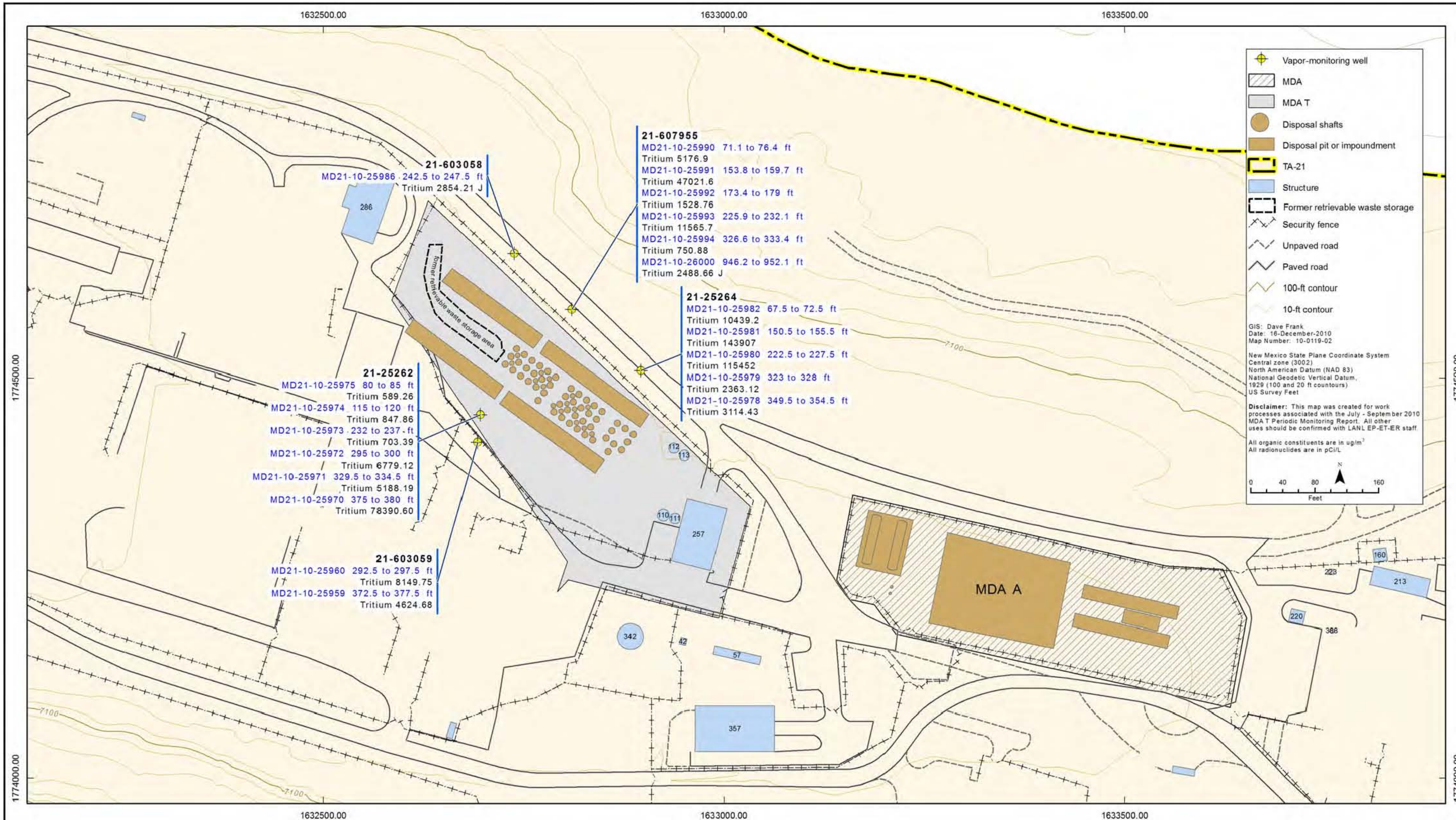

Figure 5.3-1 Tritium detected in vapor samples at MDA T

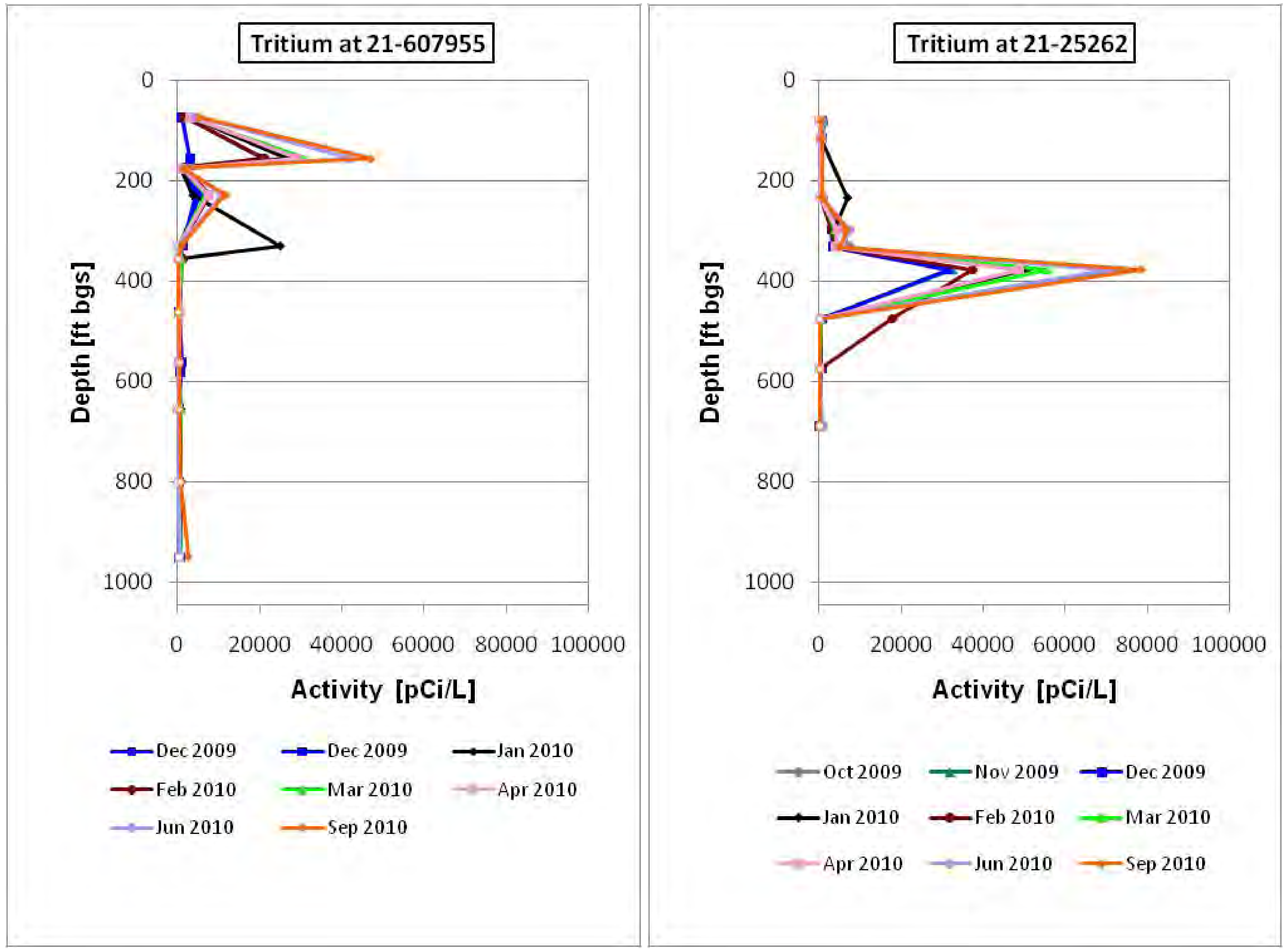

Figure 5.3-2 Vertical profiles of tritium in vapor-monitoring wells 21-607955 and 21-25262

Table 1.0-1
History of MDA T Periodic Monitoring Events

Quarter	Sampling Event Date	Number of Vapor-Monitoring Wells[a]	Associated Report Title
11th Quarter	September 2010	5	Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T Consolidated Unit 21-016(a)-99, at Technical Area 21, July to September 2010 (current report)
10th Quarter[b]	June 2010	5	Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T Consolidated Unit 21-016(a)-99, at Technical Area 21, April to June 2010 (LANL 2010, 111121)
	April 2010		
9th Quarter	March 2010	5	Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T Consolidated Unit 21-016(a)-99, at Technical Area 21, January to March 2010 (LANL 2010, 110059)
	February 2010		
	January 2010		
8th Quarter	December 2009	5	Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T Consolidated Unit 21-016(a)-99, at Technical Area 21, October to December 2009 (LANL 2010, 109254)
	November 2009		
	October 2009		
	November 2009	5	Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T Consolidated Unit 21-016(a)-99, at Technical Area 21, September to November 2009 (LANL 2010, 108529)
	October 2009		
7th Quarter	September 2009		
	August 2009	4	Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T Consolidated Unit 21-016(a)-99, at Technical Area 21, June to August 2009 (LANL 2009, 107448)
	July 2009		
6th Quarter[c]	June 2009		
	April 2009	3	Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T Consolidated Unit 21-016(a)-99, at Technical Area 21, February and April 2009 (LANL 2009, 106665)
5th Quarter	February 2009		
4th Quarter	September 2008	3	Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area T Consolidated Unit 21-016(a)-99, at Technical Area 21, Fiscal Year 2008 (LANL 2009, 105187)
3rd Quarter	May 2008	3	
2nd Quarter	February 2008	3	
1st Quarter	October 2007	3	

Note: Shaded dates are not presented in the current monitoring report.

[a] The number includes boreholes sampled and field screened.

[b] Monthly sampling ended in April 2010 with resumption of quarterly sampling.

[c] Sampling frequency increased from quarterly to monthly in June 2009.

Table 1.0-2
NMED-Approved MDA T Subsurface
Vapor-Monitoring Locations, Port Depths, and Corresponding Sampling Intervals

Borehole ID	VOC and Tritium Sampling-Port Depths and Intervals (ft bgs)
21-603058	**70 (67.5–72.5),** 163 (160.5–165.5)*, **219.9 (217–222), 245 (242.5–247.5), 342 (339.5–344.5)**
21-603059	**80 (77.5–82.5),** 115 (112.5–117.5)*, **190 (187.5–192.5), 232 (229.5–234.5), 295 (292.5–297.5), 375 (372.5–377.5)**
21-25264	**70 (67.5–72.5), 153 (150.5–155.5), 225 (222.5–227.5), 325.5 (323–328), 352 (349.5–354.5)**
21-25262	**82.5 (80–85), 117.5 (115–120), 234.5 (232–237), 297.5 (295–300), 332 (329.5–334.5), 377.5 (375–380), 475 (472–478), 574.5 (572–577), 688.5 (686–691)**
21-607955	**73.75 (71.1–76.4), 156.75 (153.8–159.7), 176.2 (173.4–179), 229 (225.9–232.1), 330 (326.6–333.4), 356.45 (353.3–359.6), 462.1 (459.4–464.8), 562 (559–565), 654.3 (651.3–657.3), 800.15 (797.2–803.1), 949.15 (946.2–952.1)**

Note: Depths in bold denote intervals that were field screened as well as ports where VOC and tritium samples were collected.
* Blocked port.

Table 3.0-1
Henry's Law Constants, Groundwater SLs, and
Calculated Concentrations Corresponding to Groundwater SLs for Detected VOCs in Pore Gas

VOC	Henry's Law Constant[a] (dimensionless)	Groundwater SL (µg/L)	Calculated Concentrations in Pore Gas Corresponding to Groundwater Standard[b] ($\mu g/m^3$)
Carbon Tetrachloride	1.1	5[c]	5500
Chloroform	0.15	80[c]	15,000
Dichloroethane[1,2-]	0.048	5[c]	240
Dichloroethene[1,1-]	1.1	5[e]	5500
Methylene Chloride	0.13	5[c]	650
Tetrachloroethene	0.72	5[c]	3600
Toluene	0.272	750[d]	204,000
Trichloroethane[1,1,2-]	0.034	5[c]	170
Trichloroethene	0.4	5[c]	2000

[a] Henry's law constants and SLs from NMED (2009, 108070) unless otherwise noted.
[b] Derived from denominator of Equation 3.0-3.
[c] EPA MCL (40 Code of Federal Regulations 141.61).
[d] NMWQCC groundwater standard (20.6.2.3103 New Mexico Administrative Code).

Table 5.2-1
Screening of VOCs in Pore Gas at MDA T, July to September 2010

VOC	Maximum Pore-Gas Concentration (µg/m3)	Calculated Concentrations in Pore Gas Corresponding to Groundwater Standard[a] (µg/m3)	SV (unitless)[b]
Carbon Tetrachloride	760	5500	0.138
Chloroform	1700	15,000	0.113
Dichloroethane[1,2-]	36	240	0.15
Dichloroethene[1,1-]	110	5500	0.02
Methylene Chloride	3000	650	**4.62**
Tetrachloroethene	3400	3600	0.944
Toluene	170	204,000	0.000833
Trichloroethane[1,1,2-]	210	170	**1.24**
Trichloroethene	1400	2000	0.7

[a] Derived from denominator of Equation 3.0-3.

[b] Calculated using Equation 3.0-3. If the SV is less than 1, the concentration of the VOC in pore gas does not have the potential to exceed the groundwater SL. SVs greater than 1 are in bold.

Appendix A

Acronyms and Abbreviations,
Metric Conversion Table, and Data Qualifier Definitions

A-1.0 ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
COC	chain of custody
Consent Order	Compliance Order on Consent
DER	duplicate error ratio
EPA	Environmental Protection Agency (U.S.)
FD	field duplicate
LANL	Los Alamos National Laboratory
LCS	laboratory control sample
MCL	maximum contaminant level
MDA	material disposal area
NMED	New Mexico Environment Department
NMWQCC	New Mexico Water Quality Control Commission
PCE	tetrachloroethene
QA	quality assurance
QC	quality control
RACER	Risk Analysis, Communication, Evaluation, and Reduction
RPD	relative percent difference
RPF	Records Processing Facility
SCL	sample collection log
SL	screening level
SMO	Sample Management Office
SOP	standard operating procedure
SOW	statement of work
SV	screening value
TA	technical area
TCE	trichloroethene
TD	total depth
TPU	total propagated uncertainty
VOC	volatile organic compound

A-2.0 METRIC CONVERSION TABLE

Multiply SI (Metric) Unit	by	To Obtain U.S. Customary Unit
kilometers (km)	0.622	miles (mi)
kilometers (km)	3281	feet (ft)
meters (m)	3.281	feet (ft)
meters (m)	39.37	inches (in.)
centimeters (cm)	0.03281	feet (ft)
centimeters (cm)	0.394	inches (in.)
millimeters (mm)	0.0394	inches (in.)
micrometers or microns (µm)	0.0000394	inches (in.)
square kilometers (km^2)	0.3861	square miles (mi^2)
hectares (ha)	2.5	acres
square meters (m^2)	10.764	square feet (ft^2)
cubic meters (m^3)	35.31	cubic feet (ft^3)
kilograms (kg)	2.2046	pounds (lb)
grams (g)	0.0353	ounces (oz)
grams per cubic centimeter (g/cm^3)	62.422	pounds per cubic foot (lb/ft^3)
milligrams per kilogram (mg/kg)	1	parts per million (ppm)
micrograms per gram (µg/g)	1	parts per million (ppm)
liters (L)	0.26	gallons (gal.)
milligrams per liter (mg/L)	1	parts per million (ppm)
degrees Celsius (°C)	9/5(°C) + 32	degrees Fahrenheit (°F)

A-3.0 DATA QUALIFIER DEFINITIONS

Data Qualifier	Definition
U	The analyte was analyzed for but not detected.
J	The analyte was positively identified, and the associated numerical value is estimated to be more uncertain than would normally be expected for that analysis.
J+	The analyte was positively identified, and the result is likely to be biased high.
J-	The analyte was positively identified, and the result is likely to be biased low.
UJ	The analyte was not positively identified in the sample, and the associated value is an estimate of the sample-specific detection or quantitation limit.
R	The data are rejected as a result of major problems with quality assurance/quality control parameters.

Appendix B

Field Methods

B-1.0 INTRODUCTION

This appendix summarizes the field methods used during the July to September 2010 sampling activities at Material Disposal Area (MDA) T, Consolidated Unit 21-016(a)-99, in Technical Area 21 at Los Alamos National Laboratory (LANL or the Laboratory). All activities were conducted in accordance with the applicable standard operating procedures (SOPs), quality procedures, and Laboratory implementation and procedural requirements. Table B-1.0-1 summarizes the field methods used, and Table B-1.0-2 lists the applicable procedures.

B-2.0 FIELD METHODS

All work was conducted per a site-specific health and safety plan and an integrated work document. Field activities conducted according to SOPs are discussed below.

B-2.1 Volatile Organic Compound Pore-Gas Field Screening

All volatile organic compound (VOC) samples were field screened in accordance with the current version of the SOP-5074, Sampling Subsurface Vapor. This procedure covers the MultiRAE IR Multi-Gas Monitor.

B-2.1.1 MultiRAE IR Multi-Gas Monitor

Before each sampling event, each sample port was purged of stagnant air and then monitored with a MultiRAE IR Multi-Gas Monitor (or equivalent) until the percent carbon dioxide (%CO_2) and percent oxygen (%O_2) levels stabilized at values representative of subsurface pore-gas conditions. Each instrument rental was shipped factory-calibrated to the Laboratory and periodically calibrated as needed.

The MultiRAE IR Multi-Gas Monitor was calibrated using a two-point process using “fresh air” and a standard gas. The first point calibration was the “fresh air” calibration that determined the zero point of the calibration curve for lower explosive limit, volatile organic compound (VOC) and toxic gas sensors. The “fresh air” calibration used air containing 20.9% oxygen concentration and was void of toxic gases and other impurities. The standard gas calibration sets the second point of the sensor calibration curve. The CO, CO_2, and O_2 sensors are zeroed during this two-point calibration process.

Calibration information is reported below for the MultiRAE IR Multi-Gas Monitor used to generate results presented in this periodic monitoring report.

- Unit 2616 was calibrated on September 2, 2010. The zero points were set for CO_2 and O_2. Percent oxygen was set to read ambient air at 20.9%. Pump flow was confirmed to be 150 cc/min.

Oxygen values should be near the zero point for O_2. An alarm identifies if %O_2 exceeds a range from 19.5% to 23.5%, thereby identifying the need for calibration. The CO_2 reading should be near zero.

The vapor-sample tubing was purged of stagnant air by drawing sufficient air from the sampling interval through the line. To ensure the sample collected was representative of the subsurface air at depth, every sampling activity included a purge cycle.

The screening %CO_2 and %O_2 levels are presented in Appendix D. The %CO_2 and %O_2 levels ranged from 0.0% to 0.2% and from 19.8% to 20.9%, respectively, during the July to September 2010 sampling event. These values are within acceptable limits and are representative of subsurface pore-gas conditions.

B-2.2 VOC Pore-Gas Sample Collection

All VOC samples were collected in accordance with the current version of SOP-5074, Sampling Subsurface Vapor.

Upon completion of purging and field screening, VOC samples were taken using a sample train set-up along with a SUMMA canister. Information was recorded on the appropriate SCLs. Field chain-of-custody (COC) and sample collection logs (SCLs) are provided in Appendix D (on CD included with this document).

All samples were submitted to the Sample Management Office (SMO) for processing and transport to off-site contract analytical laboratories.

B-2.3 Tritium Pore-Gas Sample Collection

All tritium samples were collected in accordance with the current version of SOP-5074. Water vapor intended for tritium analysis was collected from pore gas by pulling a pore-gas sample through a canister of silica gel (silica gel column) and the sample information was recorded on the appropriate SCL (Appendix D). Silica gel was the medium used at the Laboratory to collect moisture from pore-gas samples. The moisture was analyzed for tritium using liquid scintillation counting. Silica gel column field duplicate samples were also collected at a frequency greater than or equal to 10% per sampling event in accordance with the current version of SOP-5059.

Silica gel was prepared for sampling by drying it at a temperature above 100°C. Drying removes moisture from the silica gel but does not remove bound water which is accounted. Before sample collection, the amount of silica gel used in each sample was weighed (typically about 135 g). The sample canister with silica gel was also weighed before sampling. SOP-5074 requires that at least 5 g of moisture be collected. After sampling, the sample canister with silica gel was weighed again to verify that 5 g of water vapor had been collected.

The sample (canister plus silica gel) was shipped to the analytical laboratory where it was weighed again. The silica gel was emptied into a distillation apparatus and heated to 110°C, driving moisture off the silica gel. This moisture was collected and analyzed for tritium by liquid scintillation. The laboratory also weighed the empty canister and calculated the percent moisture of the sample as the amount of moisture collected divided by the calculated weight of the wet silica gel. The value of the tritium concentration and the calculated percent moisture were reported to the Laboratory in the analytical data package and the electronic data deliverable.

Table B-1.0-1
Summary of Field Methods

Method	Summary
General Instructions for Field Investigations	This procedure provides an overview of instructions regarding activities performed before, during, and after field investigations. It is assumed field investigations involve standard sampling equipment, personal protective equipment, waste management, and site-control equipment/materials. The procedure covers premobilization activities, mobilization to the site, documentation and sample collection activities, sample media evaluation, surveillance, and completion of lessons learned.
Sample Containers and Preservation	Specific requirements/processes for sample containers, preservation techniques, and holding times are based on the U.S. Environmental Protection Agency guidance for environmental sampling, preservation, and quality assurance. Specific requirements were met for each sample and were printed in the SCLs provided by the Laboratory's SMO (size and type of container, preservatives, etc.). All samples were preserved by placing them in insulated containers with ice to maintain a temperature of 4°C.
Handling, Packaging, and Transporting Field Samples	Field team members sealed and labeled samples before packing to ensure sample and transport containers were free of external contamination. All environmental samples were collected, preserved, packaged, and transported to the SMO under COC. The SMO arranged for shipping of the samples to analytical laboratories. Any levels of radioactivity (i.e., action-level or limited-quantity ranges) were documented in SCLs submitted to the SMO.
Sample Control and Field Documentation	The collection, screening, and transport of samples were documented in standard forms generated by the SMO. These forms include SCLs, COC forms, sample container labels, and custody seals. Collection logs were completed at the time of sample collection and were signed by the sampler and a reviewer who verified the logs for completeness and accuracy. Corresponding labels were initialed and applied to each sample container, and custody seals were placed around container lids or openings. COC forms were completed and signed to verify that the samples were not left unattended.
Field QC Samples	Field quality control samples were collected as follows: Field duplicates were collected at a frequency of 10% at the same time as a regular sample and submitted for the same analyses. Field blanks required for all field events that include collecting samples for VOC analyses were collected. Field blanks were kept with the other sample containers during the sampling process and were submitted for laboratory analyses.
Sampling Subsurface Vapor	Vapor sampling was performed at five monitoring wells in accordance with the current version of SOP-5074 and analyzed for VOCs and tritium. This SOP describes the process of sampling subatmospheric air from vapor ports in monitoring wells and boreholes. The procedure covers presampling activities, sampling to detect and quantify gaseous organic concentration in air, SUMMA sampling (a passive collection and containment system of laboratory-quality air samples), adsorbent column sampling, and sampling through the packer system (a sampling system that uses inflatable bladders to seal off a desired interval in an open borehole or at the end of drill casing to obtain a sample from a discrete section), and postsampling activities.

Table B-1.0-2
List of Applicable General Procedures for MDA T Pore-Gas Monitoring Activities

Document Number	LANL Procedure Title
SOP-5055	General Instructions for Field Investigations
SOP-5056	Sample Containers and Preservation
SOP-5057	Handling, Packaging, and Transporting Field Samples
SOP-5058	Sample Control and Field Documentation
SOP-5059	Field Quality Control Samples
SOP-5061	Field Decontamination of Equipment
SOP-5074	Sampling Subsurface Vapor
P 101-6	Personal Protective Equipment
SOP-01.12	Field Site Closeout Checklist
SOP-01.13,	Initiating and Managing Data Set Requests
SOP-5181	Notebook Documentation for Environmental Restoration Technical Activities
SOP-5228	ADEP Reporting Requirements for Abnormal Events

Appendix C

Quality Assurance/Quality Control Program

C-1.0 INTRODUCTION

This appendix presents the analytical methods and summarizes the data quality review for the July to September 2010 pore-gas samples collected at Material Disposal Area (MDA) T, Consolidated Unit 21-016(a)-99, in Technical Area 21, at Los Alamos National Laboratory (LANL or the Laboratory).

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 (SOW) 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, and surrogates, were used to assess laboratory accuracy and bias.

The type and frequency of QC analyses are described in the analytical services SOW (LANL 2000, 071233). Other QC factors, such as sample preservation and holding times, were also assessed. The requirements for sample preservation and holding times are presented in the Standard Operating Procedure (SOP) 5056, 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) that included a more detailed review of the raw data. The SOPs used for data validation are presented in Table C-1.0-1. Copies of the analytical data, laboratory logbooks, and instrument printouts are provided in Appendix D (on CD).

Analytical data were reviewed and evaluated based on U.S. Environmental Protection Agency (EPA) National Functional Guidelines for organic chemical data review where applicable (EPA 1994, 048639; EPA 1999, 066649). Data have also been assessed using guidelines established in SW-846 (EPA 1997, 057589). As a result of the data validation and assessment efforts, qualifiers have been assigned to the appropriate analytical records. Definitions of the data qualifiers are presented in Appendix A.

C-1.1 Maintenance of Chain of Custody

To maintain chain of custody is to document or demonstrate the possession of an item by only authorized individuals. The chain-of-custody process, described in SOP-5058, Chain of Custody for Analytical Data Record Packages, 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. The chain-of-custody forms are provided in Appendix D (on CD).

C-1.2 Sample Documentation

Establishing sample documentation acceptability, as described in SOP-5058, is the first step toward verifying that an analytical system has produced data of known quality. Documentation depends on 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.

C-1.3 Sample Preservation

Sample preservation is the use of specific types of sample containers and preservation techniques, as described in SOP-5056. 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.

C-1.4 Holding Time

Holding time, the maximum amount of time a sample can be stored without potential unacceptable changes in analyte concentrations, is described in SOP-5056. Extraction holding time refers to the time that elapses between sample collection and sample preparation; analytical holding time refers to the time that elapses between sample preparation and analysis.

C-1.5 Initial and Continuing Calibration Verification (Including Interference-Check Standards)

Calibration verification establishes a quantitative relationship between the response of the analytical procedure and the concentration of the target analyte. There are two aspects of calibration verification: initial and continuing. The initial calibration verifies the accuracy of the calibration curve and the individual calibration standards being used to perform the calibration. The continuing calibration ensures 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.

C-1.6 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.

C-1.7 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 chemical results are not detected if reported results are less than or equal to the method detection limit adjusted by sample-specific dilution or concentration factors.

Tritium results reported at less than the minimum detectable concentration are not detected. Each tritium 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 (U).

C-1.8 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 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).

C-1.9 Matrix Spike Recoveries

A matrix spike is an aliquot of a 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).

C-1.10 Surrogate

Surrogates (an organic chemical compound) are similar in composition and behavior to target analytes but are not typically found in environmental samples. Surrogates 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 vary by method, but should generally be greater than 10% for an analytical result to be usable (LANL 2000, 071233).

C-1.11 Internal Standard Responses and Carrier Recoveries

Internal standards are chemical compounds 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 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 be within the range from ≥50% to ≤200% (LANL 2000, 071233).

C-1.12 LCS Recoveries

An LCS is a known matrix that has been spiked with compound(s) 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).

C-1.13 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 determine the long-term precision of an analytical method on various matrices. All relative percent differences (RPDs) between samples and field duplicates should be ±35% (LANL 2000, 071233). The percent difference is defined by the equation $RPD = [|D1 - D2|/(D1 + D2)/2] \times 100\%$, where D1 and D2 represent analytical measurements on duplicate samples.

For radionuclides, the duplicate error ratio (DER) is also used to quantify precision. The DER is defined by the equation $DER = |S - D|/\mathrm{sqrt}((2\sigma_S)^2 + (2\sigma_D)^2)$, where S represents the original sample value, D represents the duplicate value, and $2\sigma_S$ and $2\sigma_D$ 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 collected as closely as possible at the same point in space and time. They are two separate samples taken from the same source, stored in separate containers, and analyzed independently. The field duplicate samples were collected at a frequency greater than or equal to 10% per sampling event in accordance with the current version of SOP-5059, Field Quality Control Samples.

C-1.14 Field Blanks, Equipment Blanks, and Performance Evaluations

A field blank is a sample of analyte-free medium 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. The field blank samples were collected at a frequency greater than or equal to 10% per sampling event in accordance with the current version of SOP-5059, Field Quality Control Samples.

An equipment blank is a sample used to verify cleanliness of the sampling equipment. It is collected after completion of decontamination and before sampling.

C-2.0 LABORATORY ANALYSIS SUMMARY

During the July to September 2010, sampling event, 34 volatile organic compound (VOC) pore-gas samples, 4 field blank samples, and 5 field duplicate samples were collected at MDA T. Additionally, 34 tritium samples, 4 field blank samples, and 5 field duplicate samples were collected. Analysis of pore gas was conducted for VOCs using EPA Method TO-15, and analysis for tritium was conducted using EPA Method 906.0. Table C-2.0-1 lists the analytical methods used for VOC and tritium analyses. All QC procedures were followed, as required by the analytical services SOW (LANL 2000, 071233).

Sampling locations, sampling ports, and validated analytical results are presented in Appendix D of this periodic monitoring report. The entire data set meets the standards for use in this report.

The tritium and VOC analyses are summarized in the following sections. The required minimum detectable concentration or estimated quantitation limit is prescribed in the analytical services SOW (LANL 2000, 071233).

C-3.0 ORGANIC CHEMICAL ANALYSES

No VOC data were rejected during the July to September 2010 monitoring period. Chain of custody, field documentation, and holding times were properly maintained for all samples. No sample preservation is required for VOCs.

Analyte identification criteria were met for all VOC results. Method blanks, surrogate recoveries, and internal standards responses were all within acceptable limits.

Two field duplicates had relative percent differences greater than 35%. Table C-3.0-1 outlines the samples containing RPDs > 35%. In vapor-monitoring well 21-603058, at 245 ft below ground surface, tetrachloroethene and trichloroethene had RPDs of 97.5% and 38.5%, respectively.

C-4.0 RADIONUCLIDE ANALYSES

No tritium results were rejected during the July to September 2010 monitoring period. Chain of custody, field documentation, and holding times were properly maintained for all samples. No sample preservation is required for tritium. The LCS recoveries were within acceptable limits for all tritium analyses.

Two samples were qualified as (J) because the affected analytes are considered estimated and biased high because the analyte was identified in the method blank but was greater than 5 times.

C-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. This information is also included in text citations. ER IDs 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 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 C-1.0-1
Data Validation Procedures

Procedure	Title	Effective Date
SOP-5161, Rev. 0	Routine Validation of Volatile Organic Compound (VOC) Analytical Data	6/10/2008
SOP-5166, Rev. 0	Routine Validation of Gamma Spectroscopy, Chemical Separation Alpha Spectrometry, Gas Proportional Counting, and Liquid Scintillation Analytical Data	6/30/2008

Table C-2.0-1
Analytical Methods Used for Sample Analyses

Analytical Method	Analytical Description	Target Compound List
EPA Method TO-15	VOCs in pore gas	See analytical services statement of work (LANL 2000, 071233)
EPA Method 906.0	Tritium in pore gas	Tritium

Table C-3.0-1
VOC Sample Record with Field Duplicate Percent Difference above 35%

Borehole ID	Depth (ft)	Analyte	Sample Standard Result (µg/m^3)	Field Duplicate Result (µg/m^3)	RPD
21-603058	245	Tetrachloroethene	62(U)	180	97.5%
21-603058	245	Trichloroethene	880	1300	38.5%

Appendix D

Field-Screening Results and
Detected Volatile Organic Compounds and Tritium

D-1.0 INTRODUCTION

This appendix summarizes the field-screening results as well as detected volatile organic compound (VOC) concentrations and tritium activities for the October to December 2009, January to March 2010, April to June 2010, and July to September 2010 monitoring periods at Material Disposal Area (MDA) T. The tables listed below are organized by vapor-monitoring well IDs and depths (in feet below ground surface [ft bgs]) and are included in this appendix.

- Table D.1.0-1, Summary of Pore-Gas Field-Screening Results Using a MultiRAE IR Multi-Gas Monitor at MDA T
- Table D.1.0-2, Summary of VOCs Detected in Pore-Gas Samples at MDA T
- Table D.1.0-3, Summary of Tritium Results in Pore Gas at MDA T

Attachment D-1 (on CD included with this report) presents the analytical suites and results and analytical reports for the current and previous three monitoring periods.

Table D-1.0-1
Summary of Pore-Gas Field-Screening Results Using a MultiRAE IR Multi-Gas Monitor at MDA T

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Oct 2009[a]			Nov–Dec 2009[a]			Dec 2009[a]			Jan 2010[a]			Feb 2010[a]			Mar 2010[a]			Apr 2010[a]			Jun 2010[a]			Sept 2010		
			Collection Date	$\%O_2$	$\%CO_2$	Collection Date	$\%O_2$	$\%CO_2$	Collection Date	$\%O_2$	$\%CO_2$	Collection Date	$\%O_2$	$\%CO_2$	Collection Date	$\%O_2$	$\%CO_2$	Collection Date	$\%O_2$	$\%CO_2$	Collection Date	$\%O_2$	$\%CO_2$	Collection Date	$\%O_2$	$\%CO_2$	Collection Date	$\%O_2$	$\%CO_2$
21-25262	80	85	10/19/09	0.9	19.7	11/17/09	0.8	20.9	12/15/09	1	22.4	01/21/10	0.9	20.4	02/10/10	0.9	21.3	03/17/10	1	19.7	04/20/10	0.8	18.7	06/08/10	0.8	18.6	09/08/10	0.2	19.9
	115	120	10/19/09	0.5	19.9	11/17/09	0.5	21.4	12/15/09	0.7	22.4	01/21/10	0.6	21	02/10/10	0.6	21.8	03/17/10	0.7	20.1	04/20/10	0.8	19.5	06/08/10	0.4	15.6	09/08/10	0.2	20.2
	232	237	10/19/09	0.9	19.5	11/17/09	0.5	21.6	12/15/09	1.1	22.4	01/21/10	1	20.9	02/10/10	1	21.6	03/17/10	1.1	19.7	04/20/10	0.8	16.3	06/08/10	0.8	15	09/08/10	0.2	20.1
	295	300	10/19/09	1	19.3	11/17/09	0.4	21.7	12/15/09	1.2	22.1	01/21/10	1.1	20.9	02/10/10	1	21.6	03/17/10	1.2	19.7	04/20/10	0.9	19	06/08/10	0.8	15.2	09/08/10	0.2	20.0
	329.5	334.5	10/19/09	0.8	19.4	11/17/09	0.3	22.1	12/15/09	0.7	23.3	01/21/10	0.9	20.8	02/10/10	0.9	21.5	03/17/10	0.9	19.5	04/20/10	0.7	19	06/08/10	0.6	15.3	09/08/10	0.2	20.2
	375	380	10/19/09	0.3	19.1	11/17/09	0.2	22	12/15/09	0.5	22.8	01/21/10	0.5	21.1	02/10/10	0.5	21.5	03/17/10	0.7	19.9	04/20/10	0.4	18.8	06/08/10	0.3	15.5	09/08/10	0.1	20.4
	472	478	10/19/09	0.2	18.9	11/17/09	0.1	21.8	12/15/09	0.3	23.3	01/21/10	0.3	21.2	02/10/10	0.4	21.6	03/17/10	0.4	20.4	04/20/10	0.3	18.4	06/08/10	0.2	15.5	09/08/10	0.1	20.5
	572	577	10/19/09	0.1	18.8	11/17/09	0	22.1	12/15/09	0.3	23.3	01/21/10	0.2	21.2	02/10/10	0.3	21.7	03/17/10	0.3	20.1	04/20/10	0.1	18.5	06/08/10	0	15.9	09/08/10	0.1	20.5
	686	691	10/19/09	0	19.2	11/17/09	0	22.2	12/15/09	0.2	23.2	01/21/10	0.1	21.3	02/10/10	0.2	21.9	03/17/10	0.2	20.1	04/20/10	0	16.2	06/08/10	0	16	09/08/10	0.1	20.9
21-25264	67.5	72.5	10/16/09	0.5	20.6	11/19/09	0.8	21.3	12/22/09	1.1	21.8	01/28/10	0.7	20.6	02/16/10	0.4	20.9	03/23/10	1.1	18.1	04/27/10	0.8	19.8	06/14/10	0.9	18.8	09/10/10	0.2	19.9
	150.5	155.5	10/16/09	0.8	20.3	11/19/09	0.9	21.6	12/22/09	0.5	22.6	01/28/10	1	20.8	02/16/10	1	20.5	03/23/10	1.1	19.1	04/27/10	0.9	19.7	06/14/10	0.8	18.7	09/10/10	0.2	20.1
	222.5	227.5	10/16/09	0.4	20.7	11/19/09	0.9	21.7	12/22/09	1	22.7	01/28/10	1	21	02/16/10	1	20.7	03/23/10	1.1	19.4	04/27/10	0.5	20.2	06/14/10	0.6	18.9	09/10/10	0.2	20.1
	323	328	10/16/09	0.1	20.7	11/19/09	0.7	21.8	12/22/09	0.8	22.8	01/28/10	0.7	21.2	02/16/10	0.6	20.8	03/23/10	0.8	19.5	04/27/10	0.2	20.2	06/14/10	0.6	N/R[b]	09/10/10	0.2	20.3
	349.5	354.5	10/16/09	0.1	20.7	11/19/09	0.5	21.8	12/22/09	0.7	23.1	01/28/10	0.5	21.3	02/16/10	0.4	21.1	03/23/10	0.6	19.6	04/27/10	0.2	20.4	06/14/10	0.3	N/R	09/10/10	0.1	20.3
21-603058	67.5	72.5	10/14/09	1	19.8	11/20/09	1	20.1	12/21/09	0	22.1	01/27/10	1.1	20.6	02/17/10	1.1	20.5	03/22/10	1.1	18.9	04/26/10	1.1	19.5	06/15/10	1	19.3	09/16/10	0.2	20.1
	217	222	10/14/09	0.7	20.3	11/20/09	0.4	20.8	12/21/09	0	22	01/27/10	0.9	21.2	02/17/10	0.9	20.8	03/22/10	0.9	19.2	04/26/10	0.7	19.9	06/15/10	0.5	19.6	09/16/10	0.2	20.2
	242.5	247.5	10/14/09	0.6	20.5	11/20/09	0.2	21.4	12/21/09	0.5	21.6	01/27/10	0.8	21.3	02/17/10	0.8	20.7	03/22/10	0.9	19.1	04/26/10	0.5	20.3	06/15/10	0.3	19.6	09/16/10	0.2	20.3
	339.5	344.5	10/14/09	0.5	20.9	11/20/09	0.3	21.5	12/21/09	0	21.8	01/27/10	0.6	21.4	02/17/10	0.6	20.8	03/22/10	0.7	19.2	04/26/10	0.5	20.2	06/15/10	0.1	19.8	09/16/10	0.2	20.3
21-603059	77.5	82.5	10/20/09	0.8	19.9	11/18/09	0.7	20	12/16/09	0.9	23.1	01/20/10	0	20.8	02/11/10	1.1	20.5	03/16/10	0.9	20	04/21/10	0.8	19.2	06/09/10	0.8	19.3	09/09/10	0.2	20.0
	187.5	192.5	10/20/09	0.8	19.8	11/18/09	0.7	20.2	12/16/09	0.9	22.9	01/20/10	0.7	20.7	02/11/10	1	20.9	03/16/10	0.8	20	04/21/10	0.8	19.2	06/09/10	0.7	19.3	09/09/10	0.2	20.2
	229.5	234.5	10/20/09	1.1	19.4	11/18/09	1	20.4	12/16/09	0.1	23.5	01/20/10	1.1	20.5	02/11/10	1.3	20.8	03/16/10	1.1	20	04/21/10	1	19.1	06/09/10	0.6	19.4	09/09/10	0.2	20.1
	292.5	297.5	10/20/09	1.1	19.2	11/18/09	1	20.3	12/16/09	0.1	23.5	01/20/10	1	21	02/11/10	1.3	20.8	03/16/10	1.2	19.9	04/21/10	1	19.3	06/09/10	0.4	19.4	09/09/10	0.2	20.1
	372.5	377.5	10/20/09	0.4	19.2	11/18/09	0.4	21.1	12/16/09	0.1	23.5	01/20/10	0.4	21.3	02/11/10	0.6	21	03/16/10	0.5	20.2	04/21/10	0.4	19.8	06/09/10	0.2	19.3	09/09/10	0.1	20.3
21-607955	71.1	76.4	NS[c]	NS	NS	12/02/09	1.1	23.2	12/18/09	0.9	22.1	01/25/10	0.9	20.6	02/12/10	0.9	20	03/18/10	1	19.2	04/22/10	1	19.8	06/10/10	0.9	N/R	09/10/10	0.2	20.1
	153.8	159.7	NS	NS	NS	12/03/09	0.8	22.5	12/18/09	0.7	22.7	01/25/10	0.7	21	02/12/10	0.8	20.5	03/18/10	0.9	19.3	04/22/10	0.9	20	06/10/10	0.8	N/R	09/10/10	0.2	20.2
	173.4	179	NS	NS	NS	12/02/09	0.2	23.9	12/18/09	0.7	22.5	01/25/10	0.8	21.1	02/12/10	0.8	20.8	03/18/10	0.9	19.4	04/22/10	0.9	20.2	06/10/10	0.8	N/R	09/10/10	0.2	20.2
	225.9	232.1	NS	NS	NS	12/02/09	0.5	23.2	12/17/09	0.7	22.1	01/25/10	0.7	21.2	02/12/10	0.6	21.2	03/18/10	0.8	19.4	04/22/10	0.8	20.2	06/10/10	0.7	N/R	09/10/10	0.2	20.2
	326.6	333.4	NS	NS	NS	12/03/09	0.2	24.1	12/17/09	0.4	22	01/25/10	0.6	21.2	02/12/10	0.6	21.1	03/18/10	0.6	19.5	04/22/10	0.7	20.5	06/10/10	0.5	N/R	09/10/10	0.2	20.3
	353.3	359.6	NS	NS	NS	12/02/09	0.7	23.1	12/17/09	0	22.2	01/25/10	0.5	21.1	02/12/10	0.4	21.1	03/18/10	0.5	19.6	04/22/10	0.5	20.6	06/10/10	0.4	N/R	09/10/10	0.1	20.4
	459.4	464.8	NS	NS	NS	12/02/09	0.5	23.6	12/17/09	0	22.5	01/25/10	0.3	20.9	02/12/10	0.3	20.8	03/18/10	0.4	19.5	04/22/10	0.5	20.4	06/10/10	0.3	N/R	09/10/10	0.1	20.4
21-607955	559	565	NS	NS	NS	12/02/09	0.4	23.3	12/17/09	0	23.3	01/25/10	0.3	20.7	02/12/10	0.2	20.8	03/18/10	0.3	19.5	04/22/10	0.4	20.6	06/10/10	0.2	N/R	09/10/10	0.1	20.5
	565	599	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	651.3	657.3	NS	NS	NS	12/02/09	0.3	23.3	12/18/09	0	23.2	01/26/10	0.1	21.4	02/12/10	0.1	20.8	03/18/10	0.2	19.6	04/22/10	0.3	20.7	06/10/10	0.1	N/R	09/10/10	0.1	20.4
	797.2	803.1	NS	NS	NS	12/03/09	0.2	23.8	12/17/09	0	23.6	01/26/10	0.1	20.7	02/18/10	0.1	20.3	03/19/10	0.3	19.2	04/23/10	0.3	20	06/11/10	0.2	N/R	09/13/10	0.1	19.8
	946.2	952.1	NS	NS	NS	12/03/09	0.1	24.7	12/17/09	0	23.5	01/26/10	0.1	21.5	02/15/10	0	21.5	03/19/10	0.1	20	04/23/10	0.2	20.8	06/11/10	0	N/R	09/13/10	0.0	20.9

[a] Samples taken with a LANDTEC GEM-2000 gas monitor.
[b] NS = Not sampled.
[c] N/R=Not recorded. Oxygen sensor was not functioning properly; therefore, readings were not recorded.

Table D-1.0-2
Summary of VOCs Detected in Pore-Gas Samples at MDA T

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Analyte	Oct 2009		Nov–Dec 2009		Dec 2009		Jan 2010		Feb 2010		Mar 2010		Apr 2010		Jun 2010		Sep 2010	
				Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)
21-25262	80	85	Acetone	10/19/09	13	11/17/09	ND[a]	12/15/09	100	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Butanone[2-]	10/19/09	ND	11/17/09	ND	12/15/09	5.1	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Carbon Disulfide	10/19/09	5.4	11/17/09	ND	12/15/09	15	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Carbon Tetrachloride	10/19/09	64	11/17/09	61	12/15/09	54	01/21/10	57	02/10/10	72	03/17/10	63	04/20/10	63	06/08/10	94	09/08/10	63
			Chloroform	10/19/09	1300	11/17/09	1100	12/15/09	950	01/21/10	1100	02/10/10	1200	03/17/10	1300	04/20/10	1200	06/08/10	2000	09/08/10	1400
			Cyclohexane	10/19/09	ND	11/17/09	3.2 (J)	12/15/09	2.8	01/21/10	3.7	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Dichlorodifluoromethane	10/19/09	6.8	11/17/09	5.5	12/15/09	4.7	01/21/10	4.9	02/10/10	ND	03/17/10	5.6	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Hexane	10/19/09	ND	11/17/09	5.5	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Methylene Chloride	10/19/09	5.2	11/17/09	ND	12/15/09	3.1	01/21/10	3.2	02/10/10	ND	03/17/10	3.9	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Tetrachloroethene	10/19/09	2800	11/17/09	2200	12/15/09	2000	01/21/10	2300	02/10/10	2400	03/17/10	2100	04/20/10	2800	06/08/10	3700	09/08/10	2500
			Toluene	10/19/09	ND	11/17/09	4.6	12/15/09	3.8	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/19/09	11	11/17/09	ND	12/15/09	ND	01/21/10	7.1	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Trichloroethane[1,1,1-]	10/19/09	17	11/17/09	17	12/15/09	15	01/21/10	16	02/10/10	19	03/17/10	18	04/20/10	17	06/08/10	ND	09/08/10	ND
			Trichloroethene	10/19/09	890	11/17/09	600	12/15/09	560	01/21/10	700	02/10/10	720	03/17/10	660	04/20/10	740	06/08/10	910	09/08/10	750
	115	120	Acetone	10/19/09	31	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	8.6	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Butanone[2-]	10/19/09	4.6	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Carbon Tetrachloride	10/19/09	54	11/17/09	48	12/15/09	47	01/21/10	56	02/10/10	60	03/17/10	44	04/20/10	52	06/08/10	57 (J)	09/08/10	56
			Chloroform	10/19/09	620	11/17/09	470	12/15/09	450	01/21/10	570	02/10/10	560	03/17/10	560	04/20/10	530	06/08/10	570	09/08/10	670
			Dichlorodifluoromethane	10/19/09	6.1	11/17/09	5	12/15/09	4.8	01/21/10	4.9	02/10/10	6.2	03/17/10	4.8	04/20/10	5	06/08/10	6.1 (J)	09/08/10	ND
			Methylene Chloride	10/19/09	9.6	11/17/09	7.2	12/15/09	6.7	01/21/10	8.2	02/10/10	7.8	03/17/10	8.4	04/20/10	6.1	06/08/10	7.8	09/08/10	ND
			Propanol[2-]	10/19/09	ND	11/17/09	ND	12/15/09	170	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Propylene	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	6.7	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Tetrachloroethene	10/19/09	780	11/17/09	510	12/15/09	520	01/21/10	710	02/10/10	610	03/17/10	500	04/20/10	710	06/08/10	520	09/08/10	750
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/19/09	9.9	11/17/09	ND	12/15/09	ND	01/21/10	7.9	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Trichloroethane[1,1,1-]	10/19/09	15	11/17/09	14	12/15/09	13	01/21/10	15	02/10/10	16	03/17/10	12	04/20/10	13	06/08/10	14	09/08/10	ND
			Trichloroethene	10/19/09	460	11/17/09	290	12/15/09	300	01/21/10	400	02/10/10	380	03/17/10	320	04/20/10	380	06/08/10	370	09/08/10	430
	232	237	Acetone	10/19/09	37	11/17/09	ND	12/15/09	ND	01/21/10	7.8	02/10/10	ND	03/17/10	ND	04/20/10	10	06/08/10	12	09/08/10	ND
			Bromodichloromethane	10/19/09	7	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	6.6	03/17/10	ND	04/20/10	5.7	06/08/10	6.5	09/08/10	ND
			Butanone[2-]	10/19/09	3.5	11/17/09	ND	12/15/09	2.7	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Carbon Disulfide	10/19/09	4.2	11/17/09	ND	12/15/09	2.7	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	8	09/08/10	ND
			Carbon Tetrachloride	10/19/09	280	11/17/09	140	12/15/09	200	01/21/10	230	02/10/10	320	03/17/10	260	04/20/10	280	06/08/10	380 (J)	09/08/10	310
			Chloroform	10/19/09	710	11/17/09	380	12/15/09	500	01/21/10	540	02/10/10	660	03/17/10	680	04/20/10	670	06/08/10	740	09/08/10	770
			Dichlorodifluoromethane	10/19/09	9.8	11/17/09	5.7	12/15/09	6.4	01/21/10	7	02/10/10	9	03/17/10	7.8	04/20/10	8.5	06/08/10	11 (J)	09/08/10	ND
			Dichloroethene[1,1-]	10/19/09	13	11/17/09	4.5	12/15/09	4.1	01/21/10	8.2	02/10/10	8.7	03/17/10	7	04/20/10	7	06/08/10	8.3	09/08/10	ND
			Methylene Chloride	10/19/09	55	11/17/09	24	12/15/09	29	01/21/10	31	02/10/10	36	03/17/10	39	04/20/10	36	06/08/10	40	09/08/10	56

Table D-1.0-2 (continued)

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Analyte	Oct 2009 Collection Date	Oct 2009 Result (µg/m³)	Nov–Dec 2009 Collection Date	Nov–Dec 2009 Result (µg/m³)	Dec 2009 Collection Date	Dec 2009 Result (µg/m³)	Jan 2010 Collection Date	Jan 2010 Result (µg/m³)	Feb 2010 Collection Date	Feb 2010 Result (µg/m³)	Mar 2010 Collection Date	Mar 2010 Result (µg/m³)	Apr 2010 Collection Date	Apr 2010 Result (µg/m³)	Jun 2010 Collection Date	Jun 2010 Result (µg/m³)	Sep 2010 Collection Date	Sep 2010 Result (µg/m³)
21-25262	232	237	Tetrachloroethene	10/19/09	350	11/17/09	170	12/15/09	250	01/21/10	260	02/10/10	280	03/17/10	290	04/20/10	290	06/08/10	300	09/08/10	340
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/19/09	44	11/17/09	14 (J-)	12/15/09	18	01/21/10	28	02/10/10	29	03/17/10	22	04/20/10	25	06/08/10	30	09/08/10	ND
			Trichloroethane[1,1,1-]	10/19/09	25	11/17/09	14	12/15/09	20	01/21/10	20	02/10/10	26	03/17/10	25	04/20/10	24	06/08/10	32	09/08/10	ND
			Trichloroethene	10/19/09	620	11/17/09	270	12/15/09	370	01/21/10	440	02/10/10	520	03/17/10	480	04/20/10	500	06/08/10	600	09/08/10	600
	295	300	Acetone	10/19/09	46	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Bromodichloromethane	10/19/09	12	11/17/09	ND	12/15/09	8.7	01/21/10	6.9	02/10/10	11	03/17/10	8.5	04/20/10	8.3	06/08/10	10	09/08/10	ND
			Butanone[2-]	10/19/09	5.9	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Carbon Disulfide	10/19/09	7.3	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Carbon Tetrachloride	10/19/09	770	11/17/09	320	12/15/09	640	01/21/10	490	02/10/10	800	03/17/10	670	04/20/10	710	06/08/10	950 (J)	09/08/10	760
			Chloroform	10/19/09	790	11/17/09	360	12/15/09	610	01/21/10	510	02/10/10	700	03/17/10	720	04/20/10	630	06/08/10	790	09/08/10	770
			Dichlorodifluoromethane	10/19/09	14	11/17/09	5.8	12/15/09	8.9	01/21/10	7	02/10/10	11	03/17/10	9.4	04/20/10	9.3	06/08/10	13 (J)	09/08/10	ND
			Dichloroethane[1,2-]	10/19/09	4.5	11/17/09	ND	12/15/09	3.5	01/21/10	ND	02/10/10	3.7	03/17/10	ND	04/20/10	ND	06/08/10	4.3	09/08/10	ND
			Dichloroethene[1,1-]	10/19/09	39	11/17/09	12	12/15/09	20	01/21/10	20	02/10/10	24	03/17/10	20	04/20/10	18	06/08/10	24	09/08/10	ND
			Dichloroethene[cis-1,2-]	10/19/09	4.6 (J+)	11/17/09	ND	12/15/09	ND	01/21/10	3.3	02/10/10	4.1	03/17/10	4.4	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Hexane	10/19/09	ND	11/17/09	ND	12/15/09	9.2	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Methylene Chloride	10/19/09	350	11/17/09	110	12/15/09	130	01/21/10	120	02/10/10	160	03/17/10	150	04/20/10	97	06/08/10	120	09/08/10	110
			Tetrachloroethene	10/19/09	230	11/17/09	92	12/15/09	190	01/21/10	150	02/10/10	190	03/17/10	180	04/20/10	210	06/08/10	190	09/08/10	200
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/19/09	88	11/17/09	21 (J-)	12/15/09	44	01/21/10	43	02/10/10	55	03/17/10	42	04/20/10	49	06/08/10	55	09/08/10	ND
			Trichloroethane[1,1,1-]	10/19/09	28	11/17/09	12	12/15/09	24	01/21/10	18	02/10/10	28	03/17/10	26	04/20/10	24	06/08/10	32	09/08/10	ND
			Trichloroethane[1,1,2-]	10/19/09	18	11/17/09	ND	12/15/09	15	01/21/10	12	02/10/10	16	03/17/10	15	04/20/10	17	06/08/10	15	09/08/10	ND
			Trichloroethene	10/19/09	1600	11/17/09	590	12/15/09	1100	01/21/10	980	02/10/10	1300	03/17/10	1100	04/20/10	1200	06/08/10	1300	09/08/10	1300
	329.5	334.5	Acetone	10/19/09	76	11/17/09	9.7	12/15/09	ND	01/21/10	210	02/10/10	ND	03/17/10	ND	04/20/10	10	06/08/10	ND	09/08/10	ND
			Benzene	10/19/09	3.1	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Bromodichloromethane	10/19/09	14	11/17/09	8.2	12/15/09	11	01/21/10	8.8	02/10/10	13	03/17/10	10	04/20/10	10	06/08/10	12	09/08/10	ND
			Butanone[2-]	10/19/09	7.2	11/17/09	ND	12/15/09	6.1	01/21/10	3.8	02/10/10	ND	03/17/10	2.9	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Carbon Disulfide	10/19/09	3.5	11/17/09	ND	12/15/09	3	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	4.4	09/08/10	ND
			Carbon Tetrachloride	10/19/09	760	11/17/09	410	12/15/09	540	01/21/10	570	02/10/10	840	03/17/10	620	04/20/10	680	06/08/10	900 (J)	09/08/10	540
			Chloroform	10/19/09	770	11/17/09	430	12/15/09	550	01/21/10	560	02/10/10	720	03/17/10	660	04/20/10	610	06/08/10	760	09/08/10	580
			Chloromethane	10/19/09	ND	11/17/09	ND	12/15/09	14	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Dichlorobenzene[1,4-]	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	5.2	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Dichlorodifluoromethane	10/19/09	10	11/17/09	6.3	12/15/09	5.5	01/21/10	6.4	02/10/10	9.5	03/17/10	6.7	04/20/10	6.6	06/08/10	9.5 (J)	09/08/10	ND
			Dichloroethane[1,2-]	10/19/09	9	11/17/09	5.6	12/15/09	7.9	01/21/10	6	02/10/10	8.6	03/17/10	6.3	04/20/10	6.6	06/08/10	9.1	09/08/10	ND
			Dichloroethene[1,1-]	10/19/09	44	11/17/09	19	12/15/09	20	01/21/10	28	02/10/10	32	03/17/10	24	04/20/10	23	06/08/10	31	09/08/10	ND
			Dichloroethene[cis-1,2-]	10/19/09	5.5 (J+)	11/17/09	ND	12/15/09	4.1	01/21/10	4.4	02/10/10	4.9	03/17/10	4.8	04/20/10	3.8	06/08/10	4.2	09/08/10	ND
			Ethanol	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	130	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND

Table D-1.0-2 (continued)

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Analyte	Oct 2009 Collection Date	Oct 2009 Result (µg/m³)	Nov–Dec 2009 Collection Date	Nov–Dec 2009 Result (µg/m³)	Dec 2009 Collection Date	Dec 2009 Result (µg/m³)	Jan 2010 Collection Date	Jan 2010 Result (µg/m³)	Feb 2010 Collection Date	Feb 2010 Result (µg/m³)	Mar 2010 Collection Date	Mar 2010 Result (µg/m³)	Apr 2010 Collection Date	Apr 2010 Result (µg/m³)	Jun 2010 Collection Date	Jun 2010 Result (µg/m³)	Sep 2010 Collection Date	Sep 2010 Result (µg/m³)
21-25262	329.5	334.5	Hexane	10/19/09	ND	11/17/09	ND	12/15/09	9.8	01/21/10	8.7	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Methylene Chloride	10/19/09	660	11/17/09	320	12/15/09	210	01/21/10	380	02/10/10	460	03/17/10	410	04/20/10	340	06/08/10	440	09/08/10	380
			n-Heptane	10/19/09	ND	11/17/09	ND	12/15/09	4.7	01/21/10	27	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Tetrachloroethene	10/19/09	190	11/17/09	100	12/15/09	160	01/21/10	150	02/10/10	170	03/17/10	150	04/20/10	170	06/08/10	160	09/08/10	170
			Toluene	10/19/09	5.2	11/17/09	3.3	12/15/09	ND	01/21/10	ND	02/10/10	4.5	03/17/10	4.8	04/20/10	4.6	06/08/10	4.6	09/08/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/19/09	76	11/17/09	26 (J-)	12/15/09	25	01/21/10	39	02/10/10	49	03/17/10	32	04/20/10	41	06/08/10	46	09/08/10	ND
			Trichloroethane[1,1,1-]	10/19/09	22	11/17/09	12	12/15/09	17	01/21/10	18	02/10/10	24	03/17/10	20	04/20/10	19	06/08/10	27	09/08/10	ND
			Trichloroethane[1,1,2-]	10/19/09	54	11/17/09	31	12/15/09	41	01/21/10	37	02/10/10	41	03/17/10	39	04/20/10	44	06/08/10	39	09/08/10	ND
			Trichloroethene	10/19/09	1600	11/17/09	760	12/15/09	1100	01/21/10	1100	02/10/10	1400	03/17/10	1100	04/20/10	1200	06/08/10	1400	09/08/10	1100
	375	380	Acetone	10/19/09	45	11/17/09	9.2	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	14	09/08/10	ND
			Benzene	10/19/09	ND	11/17/09	ND	12/15/09	3.1	01/21/10	2.7	02/10/10	3.7	03/17/10	4	04/20/10	3.5	06/08/10	3.2	09/08/10	ND
			Bromodichloromethane	10/19/09	15	11/17/09	7.4	12/15/09	12	01/21/10	9.6	02/10/10	15	03/17/10	12	04/20/10	11	06/08/10	15	09/08/10	ND
			Butanone[2-]	10/19/09	ND	11/17/09	ND	12/15/09	3.2	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Carbon Disulfide	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	4.9	06/08/10	ND	09/08/10	ND
			Carbon Tetrachloride	10/19/09	600	11/17/09	310	12/15/09	550	01/21/10	430	02/10/10	670	03/17/10	490	04/20/10	590	06/08/10	750 (J)	09/08/10	530
			Chloroform	10/19/09	890	11/17/09	490	12/15/09	760	01/21/10	650	02/10/10	920	03/17/10	800	04/20/10	780	06/08/10	930	09/08/10	810
			Dichlorobenzene[1,4-]	10/19/09	ND	11/17/09	ND	12/15/09	6.4	01/21/10	5.6	02/10/10	8	03/17/10	7.2	04/20/10	ND	06/08/10	6.9	09/08/10	ND
			Dichlorodifluoromethane	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	5.4	03/17/10	ND	04/20/10	ND	06/08/10	5.2 (J)	09/08/10	ND
			Dichloroethane[1,2-]	10/19/09	16	11/17/09	7.9	12/15/09	14	01/21/10	9.3	02/10/10	16	03/17/10	12	04/20/10	12	06/08/10	17	09/08/10	ND
			Dichloroethene[1,1-]	10/19/09	75	11/17/09	32	12/15/09	44	01/21/10	45	02/10/10	58	03/17/10	39	04/20/10	42	06/08/10	51	09/08/10	54
			Dichloroethene[cis-1,2-]	10/19/09	ND	11/17/09	ND	12/15/09	4.3	01/21/10	4.2	02/10/10	4.9	03/17/10	5	04/20/10	4	06/08/10	4.5	09/08/10	ND
			Methylene Chloride	10/19/09	1300	11/17/09	630	12/15/09	930	01/21/10	750	02/10/10	1000	03/17/10	880	04/20/10	760	06/08/10	980	09/08/10	980
			Tetrachloroethene	10/19/09	120	11/17/09	55	12/15/09	100	01/21/10	84	02/10/10	110	03/17/10	100	04/20/10	120	06/08/10	98	09/08/10	100
			Toluene	10/19/09	6.9	11/17/09	3.7	12/15/09	5.3	01/21/10	4.9	02/10/10	6.6	03/17/10	6.7	04/20/10	5.7	06/08/10	6.1	09/08/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/19/09	42	11/17/09	13 (J-)	12/15/09	22	01/21/10	22	02/10/10	28	03/17/10	18	04/20/10	26	06/08/10	27	09/08/10	ND
			Trichloroethane[1,1,1-]	10/19/09	12	11/17/09	6.2	12/15/09	11	01/21/10	8.7	02/10/10	14	03/17/10	10	04/20/10	11	06/08/10	14	09/08/10	ND
			Trichloroethane[1,1,2-]	10/19/09	120	11/17/09	55	12/15/09	90	01/21/10	75	02/10/10	100	03/17/10	96	04/20/10	100	06/08/10	92	09/08/10	87
			Trichloroethene	10/19/09	1700	11/17/09	740	12/15/09	1200	01/21/10	1100	02/10/10	1500	03/17/10	1300	04/20/10	1300	06/08/10	1400	09/08/10	1300
	472	478	Acetone	10/19/09	23	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	12	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Benzene	10/19/09	6.7	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	5.5	04/20/10	3.6	06/08/10	ND	09/08/10	ND
			Bromodichloromethane	10/19/09	13	11/17/09	ND	12/15/09	ND	01/21/10	12	02/10/10	12	03/17/10	10	04/20/10	7.2	06/08/10	ND	09/08/10	ND
			Butanone[2-]	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	6.4	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Carbon Disulfide	10/19/09	6.9	11/17/09	9.7	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	34	04/20/10	ND	06/08/10	9.1	09/08/10	ND
			Carbon Tetrachloride	10/19/09	510	11/17/09	360	12/15/09	500	01/21/10	500	02/10/10	550	03/17/10	410	04/20/10	370	06/08/10	670 (J)	09/08/10	510
			Chloroform	10/19/09	1400	11/17/09	960	12/15/09	1200	01/21/10	1300	02/10/10	1300	03/17/10	1200	04/20/10	860	06/08/10	1500	09/08/10	1300

Table D-1.0-2 (continued)

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Analyte	Oct 2009		Nov–Dec 2009		Dec 2009		Jan 2010		Feb 2010		Mar 2010		Apr 2010		Jun 2010		Sep 2010	
				Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)
21-25262	472	478	Dichlorobenzene[1,4-]	10/19/09	11	11/17/09	ND	12/15/09	ND	01/21/10	11	02/10/10	12	03/17/10	12	04/20/10	ND	06/08/10	12	09/08/10	ND
			Dichloroethane[1,2-]	10/19/09	27	11/17/09	16	12/15/09	26	01/21/10	23	02/10/10	25	03/17/10	21	04/20/10	16	06/08/10	29	09/08/10	ND
			Dichloroethene[1,1-]	10/19/09	130	11/17/09	73	12/15/09	75	01/21/10	95	02/10/10	87	03/17/10	62	04/20/10	53	06/08/10	89	09/08/10	100
			Dichloroethene[cis-1,2-]	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	4.7	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Hexane	10/19/09	ND	11/17/09	ND	12/15/09	11	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Methylene Chloride	10/19/09	2400	11/17/09	1600	12/15/09	1800	01/21/10	1900	02/10/10	1800	03/17/10	1600	04/20/10	1000	06/08/10	2000	09/08/10	2000
			Tetrachloroethene	10/19/09	84	11/17/09	51	12/15/09	72	01/21/10	79	02/10/10	75	03/17/10	73	04/20/10	61	06/08/10	67	09/08/10	82
			Toluene	10/19/09	7.4	11/17/09	ND	12/15/09	ND	01/21/10	7	02/10/10	8	03/17/10	11	04/20/10	5	06/08/10	ND	09/08/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/19/09	27	11/17/09	ND	12/15/09	15	01/21/10	18	02/10/10	18	03/17/10	12	04/20/10	13	06/08/10	19	09/08/10	ND
			Trichloroethane[1,1,1-]	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	9	06/08/10	ND	09/08/10	ND
			Trichloroethane[1,1,2-]	10/19/09	240	11/17/09	140	12/15/09	200	01/21/10	220	02/10/10	190	03/17/10	210	04/20/10	170	06/08/10	200	09/08/10	210
			Trichloroethene	10/19/09	1700	11/17/09	1000	12/15/09	1400	01/21/10	1500	02/10/10	1400	03/17/10	1300	04/20/10	1000	06/08/10	1600	09/08/10	1400
	572	577	Acetone	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	29	04/20/10	ND	06/08/10	9.5	09/08/10	ND
			Benzene	10/19/09	ND	11/17/09	ND	12/15/09	5.6 (J)	01/21/10	ND	02/10/10	ND	03/17/10	6.6	04/20/10	3.7	06/08/10	ND	09/08/10	ND
			Butanone[2-]	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	5.7	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Carbon Tetrachloride	10/19/09	230	11/17/09	100	12/15/09	270	01/21/10	240	02/10/10	310	03/17/10	240	04/20/10	190	06/08/10	150 (J)	09/08/10	270
			Chloroform	10/19/09	1200	11/17/09	740	12/15/09	1400	01/21/10	1400	02/10/10	1600	03/17/10	1500	04/20/10	960	06/08/10	840	09/08/10	1600
			Dichlorobenzene[1,4-]	10/19/09	13	11/17/09	ND	12/15/09	10	01/21/10	ND	02/10/10	14	03/17/10	13	04/20/10	ND	06/08/10	6.4	09/08/10	ND
			Dichloroethane[1,2-]	10/19/09	21	11/17/09	12	12/15/09	23	01/21/10	21	02/10/10	26	03/17/10	21	04/20/10	13	06/08/10	14	09/08/10	ND
			Dichloroethene[1,1-]	10/19/09	65 (J)	11/17/09	48	12/15/09	87	01/21/10	100	02/10/10	98	03/17/10	80	04/20/10	56	06/08/10	46	09/08/10	110
			Methylene Chloride	10/19/09	1800 (J-)	11/17/09	1400	12/15/09	2300	01/21/10	2200	02/10/10	2300	03/17/10	2200	04/20/10	1200	06/08/10	1300	09/08/10	2500
			Tetrachloroethene	10/19/09	32	11/17/09	13	12/15/09	33	01/21/10	32	02/10/10	40	03/17/10	35	04/20/10	26	06/08/10	14	09/08/10	ND
			Trichloroethane[1,1,2-]	10/19/09	130	11/17/09	66	12/15/09	110	01/21/10	130	02/10/10	130	03/17/10	140	04/20/10	98	06/08/10	62	09/08/10	130
			Trichloroethene	10/19/09	1000	11/17/09	500	12/15/09	1200	01/21/10	1100	02/10/10	1200	03/17/10	1200	04/20/10	800	06/08/10	590	09/08/10	1200
	686	691	Acetone	10/19/09	31	11/17/09	25	12/15/09	ND	01/21/10	15	02/10/10	ND	03/17/10	12	04/20/10	ND	06/08/10	15	09/08/10	ND
			Benzene	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	2.7	02/10/10	2.8	03/17/10	2.9	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Bromomethane	10/19/09	6.7	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Butanone[2-]	10/19/09	6.4	11/17/09	3.8	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	3.2	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Carbon Disulfide	10/19/09	ND	11/17/09	ND	12/15/09	6.4	01/21/10	5.4	02/10/10	ND	03/17/10	4	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Carbon Tetrachloride	10/19/09	16	11/17/09	6.4	12/15/09	24	01/21/10	25	02/10/10	43	03/17/10	34	04/20/10	18	06/08/10	38 (J)	09/08/10	60
			Chloroform	10/19/09	290	11/17/09	120	12/15/09	360	01/21/10	440	02/10/10	550	03/17/10	500	04/20/10	240	06/08/10	450	09/08/10	780
			Dichlorobenzene[1,4-]	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	5.3	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Dichloroethene[1,1-]	10/19/09	20 (J)	11/17/09	10	12/15/09	31	01/21/10	49	02/10/10	56	03/17/10	41	04/20/10	20	06/08/10	40	09/08/10	84
			Methylene Chloride	10/19/09	190 (J-)	11/17/09	160	12/15/09	290	01/21/10	520	02/10/10	600	03/17/10	520	04/20/10	220	06/08/10	450	09/08/10	870
			Propylene	10/19/09	ND	11/17/09	ND	12/15/09	10	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Tetrachloroethene	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	6.1	02/10/10	5.9 (J)	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND

Table D-1.0-2 (continued)

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Analyte	Oct 2009		Nov–Dec 2009		Dec 2009		Jan 2010		Feb 2010		Mar 2010		Apr 2010		Jun 2010		Sep 2010	
				Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)
21-25262	686	691	Toluene	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	4	04/20/10	ND	06/08/10	ND	09/08/10	ND
			Trichloroethane[1,1,2-]	10/19/09	43	11/17/09	20	12/15/09	54	01/21/10	61	02/10/10	63	03/17/10	57	04/20/10	30	06/08/10	38	09/08/10	84
			Trichloroethene	10/19/09	98	11/17/09	43	12/15/09	150	01/21/10	200	02/10/10	220	03/17/10	190	04/20/10	100	06/08/10	190	09/08/10	330
21-25264	67.5	72.5	Acetone	10/16/09	9	11/19/09	ND	12/22/09	ND	01/28/10	ND	02/16/10	14	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Carbon Tetrachloride	10/16/09	87	11/19/09	120	12/22/09	120	01/28/10	120	02/16/10	83	03/23/10	110	04/27/10	110	06/14/10	120	09/10/10	130
			Chloroform	10/16/09	320	11/19/09	350	12/22/09	380	01/28/10	390	02/16/10	250	03/23/10	420	04/27/10	380	06/14/10	430	09/10/10	470
			Dichlorodifluoromethane	10/16/09	9.3	11/19/09	12	12/22/09	12	01/28/10	14	02/16/10	11	03/23/10	12	04/27/10	12	06/14/10	ND	09/10/10	ND
			Ethyltoluene[4-]	10/16/09	ND	11/19/09	ND	12/22/09	ND	01/28/10	ND	02/16/10	ND	03/23/10	ND	04/27/10	10	06/14/10	ND	09/10/10	ND
			Methylene Chloride	10/16/09	16	11/19/09	13	12/22/09	15	01/28/10	15	02/16/10	8.6	03/23/10	14	04/27/10	13	06/14/10	ND	09/10/10	ND
			Tetrachloroethene	10/16/09	2400	11/19/09	3000	12/22/09	3300	01/28/10	2700	02/16/10	2000	03/23/10	3000	04/27/10	3000	06/14/10	3300	09/10/10	3400
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/16/09	8.1	11/19/09	ND	12/22/09	ND	01/28/10	ND	02/16/10	ND	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Trichloroethane[1,1,1-]	10/16/09	16	11/19/09	21	12/22/09	22	01/28/10	22	02/16/10	16	03/23/10	23	04/27/10	22	06/14/10	ND	09/10/10	ND
			Trichloroethene	10/16/09	910	11/19/09	900	12/22/09	990	01/28/10	1000	02/16/10	710	03/23/10	1000	04/27/10	980	06/14/10	890	09/10/10	1200
			Trimethylbenzene[1,2,4-]	10/16/09	ND	11/19/09	ND	12/22/09	ND	01/28/10	ND	02/16/10	ND	03/23/10	ND	04/27/10	16	06/14/10	ND	09/10/10	ND
	150.5	155.5	Acetone	10/16/09	57	11/19/09	12	12/22/09	16	01/28/10	8.9	02/16/10	ND	03/23/10	ND	04/27/10	17	06/14/10	ND	09/10/10	ND
			Butanone[2-]	10/16/09	5	11/19/09	ND	12/22/09	ND	01/28/10	ND	02/16/10	ND	03/23/10	ND	04/27/10	5.7	06/14/10	ND	09/10/10	ND
			Carbon Tetrachloride	10/16/09	140	11/19/09	150	12/22/09	ND	01/28/10	180	02/16/10	190	03/23/10	150	04/27/10	150	06/14/10	140	09/10/10	150
			Chlorodifluoromethane	10/16/09	ND	11/19/09	ND	12/22/09	ND	01/28/10	30	02/16/10	ND	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Chloroform	10/16/09	390	11/19/09	370	12/22/09	ND	01/28/10	450	02/16/10	410	03/23/10	430	04/27/10	370	06/14/10	430	09/10/10	460
			Cyclohexane	10/16/09	4.4	11/19/09	4.2	12/22/09	ND	01/28/10	5.4	02/16/10	3.7	03/23/10	5.7	04/27/10	3.8	06/14/10	ND	09/10/10	ND
			Dichlorodifluoromethane	10/16/09	11	11/19/09	11	12/22/09	ND	01/28/10	12	02/16/10	13	03/23/10	11	04/27/10	10	06/14/10	ND	09/10/10	ND
			Dichloroethane[1,2-]	10/16/09	ND	11/19/09	ND	12/22/09	ND	01/28/10	ND	02/16/10	3.7	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Dichloroethene[1,1-]	10/16/09	5.1	11/19/09	ND	12/22/09	ND	01/28/10	ND	02/16/10	ND	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Methylene Chloride	10/16/09	210	11/19/09	160	12/22/09	ND	01/28/10	180	02/16/10	140	03/23/10	150	04/27/10	130	06/14/10	180	09/10/10	180
			Propanol[2-]	10/16/09	ND	11/19/09	ND	12/22/09	ND	01/28/10	14	02/16/10	ND	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Tetrachloroethene	10/16/09	500	11/19/09	460	12/22/09	ND	01/28/10	490	02/16/10	500	03/23/10	500	04/27/10	500	06/14/10	520	09/10/10	540
			Toluene	10/16/09	ND	11/19/09	ND	12/22/09	ND	01/28/10	6.3	02/16/10	ND	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/16/09	10	11/19/09	ND	12/22/09	ND	01/28/10	8.6	02/16/10	7.9	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Trichloroethane[1,1,1-]	10/16/09	21	11/19/09	21	12/22/09	ND	01/28/10	25	02/16/10	26	03/23/10	23	04/27/10	22	06/14/10	ND	09/10/10	ND
			Trichloroethene	10/16/09	600	11/19/09	480	12/22/09	ND	01/28/10	620	02/16/10	600	03/23/10	530	04/27/10	540	06/14/10	480	09/10/10	600
	222.5	227.5	Acetone	10/16/09	48	11/19/09	15	12/22/09	ND	01/28/10	ND	02/16/10	ND	03/23/10	ND	04/27/10	9.4	06/14/10	ND	09/10/10	ND
			Bromodichloromethane	10/16/09	ND	11/19/09	ND	12/22/09	5.8	01/28/10	7.9	02/16/10	8.2	03/23/10	6.1	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Butanone[2-]	10/16/09	5.3	11/19/09	3.5	12/22/09	ND	01/28/10	ND	02/16/10	ND	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Carbon Tetrachloride	10/16/09	130	11/19/09	310	12/22/09	300	01/28/10	390	02/16/10	350	03/23/10	300	04/27/10	200	06/14/10	290	09/10/10	230
			Chloroform	10/16/09	320	11/19/09	520	12/22/09	500	01/28/10	610	02/16/10	520	03/23/10	560	04/27/10	370	06/14/10	540	09/10/10	430

Table D-1.0-2 (continued)

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Analyte	Oct 2009 Collection Date	Oct 2009 Result (µg/m³)	Nov–Dec 2009 Collection Date	Nov–Dec 2009 Result (µg/m³)	Dec 2009 Collection Date	Dec 2009 Result (µg/m³)	Jan 2010 Collection Date	Jan 2010 Result (µg/m³)	Feb 2010 Collection Date	Feb 2010 Result (µg/m³)	Mar 2010 Collection Date	Mar 2010 Result (µg/m³)	Apr 2010 Collection Date	Apr 2010 Result (µg/m³)	Jun 2010 Collection Date	Jun 2010 Result (µg/m³)	Sep 2010 Collection Date	Sep 2010 Result (µg/m³)
21-25264	222.5	227.5	Cyclohexane	10/16/09	ND	11/19/09	5.1	12/22/09	5.7	01/28/10	6.1	02/16/10	4.7	03/23/10	7.1	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Dichlorodifluoromethane	10/16/09	5.8	11/19/09	11	12/22/09	10	01/28/10	12	02/16/10	11	03/23/10	9.5	04/27/10	7.2	06/14/10	ND	09/10/10	ND
			Dichloroethane[1,2-]	10/16/09	7.2	11/19/09	9.5	12/22/09	10	01/28/10	14	02/16/10	12	03/23/10	9.3	04/27/10	7.5	06/14/10	ND	09/10/10	ND
			Dichloroethene[1,1-]	10/16/09	4.3	11/19/09	5.6	12/22/09	5.6	01/28/10	6	02/16/10	4.4	03/23/10	4.8	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Ethanol	10/16/09	21	11/19/09	ND	12/22/09	ND	01/28/10	11	02/16/10	ND	03/23/10	8.5	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Hexane	10/16/09	ND	11/19/09	ND	12/22/09	11	01/28/10	ND	02/16/10	ND	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Methylene Chloride	10/16/09	560	11/19/09	700	12/22/09	690	01/28/10	770	02/16/10	620	03/23/10	650	04/27/10	480	06/14/10	740	09/10/10	670
			n-Heptane	10/16/09	ND	11/19/09	ND	12/22/09	4.1	01/28/10	ND	02/16/10	ND	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Tetrachloroethene	10/16/09	110	11/19/09	200	12/22/09	220	01/28/10	210	02/16/10	200	03/23/10	220	04/27/10	140	06/14/10	210	09/10/10	160
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/16/09	ND	11/19/09	12	12/22/09	10	01/28/10	12	02/16/10	11	03/23/10	9	04/27/10	6.7 (J)	06/14/10	ND	09/10/10	ND
			Trichloroethane[1,1,1-]	10/16/09	9.9	11/19/09	22	12/22/09	22	01/28/10	27	02/16/10	25	03/23/10	22	04/27/10	14	06/14/10	ND	09/10/10	ND
			Trichloroethane[1,1,2-]	10/16/09	ND	11/19/09	5.6	12/22/09	ND	01/28/10	5	02/16/10	ND	03/23/10	5.3	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Trichloroethene	10/16/09	380	11/19/09	650	12/22/09	650	01/28/10	820	02/16/10	720	03/23/10	670	04/27/10	470	06/14/10	560	09/10/10	530
	323	328	Acetone	10/16/09	12	11/19/09	17	12/22/09	ND	01/28/10	ND	02/16/10	ND	03/23/10	9.6	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Carbon Tetrachloride	10/16/09	110	11/19/09	400	12/22/09	400	01/28/10	540	02/16/10	450	03/23/10	390	04/27/10	170	06/14/10	390	09/10/10	380
			Chloroform	10/16/09	280	11/19/09	750	12/22/09	720	01/28/10	980	02/16/10	750	03/23/10	780	04/27/10	370	06/14/10	780	09/10/10	750
			Dichlorobenzene[1,4-]	10/16/09	ND	11/19/09	ND	12/22/09	ND	01/28/10	ND	02/16/10	ND	03/23/10	7.8	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Dichlorodifluoromethane	10/16/09	ND	11/19/09	8.3	12/22/09	ND	01/28/10	9.8	02/16/10	8.6	03/23/10	7	04/27/10	4.4	06/14/10	ND	09/10/10	ND
			Dichloroethane[1,2-]	10/16/09	8.2	11/19/09	17	12/22/09	20	01/28/10	27	02/16/10	21	03/23/10	17	04/27/10	9	06/14/10	ND	09/10/10	ND
			Dichloroethene[1,1-]	10/16/09	4.6	11/19/09	10	12/22/09	8.9	01/28/10	11	02/16/10	10	03/23/10	8.1	04/27/10	3.7	06/14/10	ND	09/10/10	ND
			Ethanol	10/16/09	25	11/19/09	ND	12/22/09	ND	01/28/10	ND	02/16/10	ND	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Methylene Chloride	10/16/09	720	11/19/09	1500	12/22/09	1300	01/28/10	1800	02/16/10	1200	03/23/10	1200	04/27/10	630	06/14/10	1400	09/10/10	1400
			Tetrachloroethene	10/16/09	22	11/19/09	65	12/22/09	74	01/28/10	76	02/16/10	62	03/23/10	72	04/27/10	28	06/14/10	65	09/10/10	59
			Toluene	10/16/09	ND	11/19/09	ND	12/22/09	ND	01/28/10	ND	02/16/10	ND	03/23/10	3.8	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/16/09	ND	11/19/09	13	12/22/09	ND	01/28/10	17	02/16/10	13	03/23/10	10	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Trichloroethane[1,1,1-]	10/16/09	ND	11/19/09	9.4	12/22/09	9.8	01/28/10	13	02/16/10	10	03/23/10	9.5	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Trichloroethene	10/16/09	290	11/19/09	750	12/22/09	760	01/28/10	1000	02/16/10	860	03/23/10	800	04/27/10	370	06/14/10	650	09/10/10	740
	349.5	354.5	Acetone	10/16/09	11	11/19/09	ND	12/22/09	ND	01/28/10	ND	02/16/10	ND	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Carbon Tetrachloride	10/16/09	73	11/19/09	370	12/22/09	88	01/28/10	510	02/16/10	440	03/23/10	330	04/27/10	150	06/14/10	340	09/10/10	330
			Chloroform	10/16/09	280	11/19/09	950	12/22/09	220	01/28/10	1200	02/16/10	1000	03/23/10	940	04/27/10	440	06/14/10	920	09/10/10	870
			Dichlorobenzene[1,4-]	10/16/09	ND	11/19/09	ND	12/22/09	ND	01/28/10	ND	02/16/10	ND	03/23/10	10	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Dichloroethane[1,2-]	10/16/09	11	11/19/09	24	12/22/09	6.6	01/28/10	40	02/16/10	34	03/23/10	24	04/27/10	14	06/14/10	ND	09/10/10	ND
			Dichloroethene[1,1-]	10/16/09	4.2	11/19/09	13	12/22/09	ND	01/28/10	15	02/16/10	11	03/23/10	10	04/27/10	4.6	06/14/10	ND	09/10/10	ND
			Ethanol	10/16/09	23	11/19/09	ND	12/22/09	ND	01/28/10	ND	02/16/10	ND	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Hexane	10/16/09	ND	11/19/09	ND	12/22/09	8.9	01/28/10	ND	02/16/10	ND	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND

Table D-1.0-2 (continued)

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Analyte	Oct 2009		Nov–Dec 2009		Dec 2009		Jan 2010		Feb 2010		Mar 2010		Apr 2010		Jun 2010		Sep 2010	
				Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)
21-25264	349.5	354.5	Methylene Chloride	10/16/09	860	11/19/09	2200	12/22/09	500	01/28/10	2700	02/16/10	1900	03/23/10	1800	04/27/10	900	06/14/10	2000	09/10/10	2000
			n-Heptane	10/16/09	ND	11/19/09	ND	12/22/09	3.6	01/28/10	ND	02/16/10	ND	03/23/10	ND	04/27/10	ND	06/14/10	ND	09/10/10	ND
			Tetrachloroethene	10/16/09	9.1	11/19/09	32	12/22/09	53	01/28/10	36	02/16/10	34	03/23/10	34	04/27/10	14	06/14/10	ND	09/10/10	ND
			Trichloroethene	10/16/09	240	11/19/09	770	12/22/09	190	01/28/10	1100	02/16/10	920	03/23/10	830	04/27/10	360	06/14/10	600	09/10/10	690
21-603058	67.5	72.5	Acetone	10/14/09	93	11/20/09	ND	12/21/09	9.5	01/27/10	ND	02/17/10	ND	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Butanone[2-]	10/14/09	14	11/20/09	ND	12/21/09	ND	01/27/10	ND	02/17/10	ND	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Carbon Disulfide	10/14/09	ND	11/20/09	ND	12/21/09	ND	01/27/10	ND	02/17/10	ND	03/22/10	ND	04/26/10	4.9	06/15/10	ND	09/16/10	ND
			Carbon Tetrachloride	10/14/09	68	11/20/09	56	12/21/09	ND	01/27/10	59	02/17/10	80	03/22/10	70	04/26/10	67	06/15/10	63	09/16/10	66
			Chloroform	10/14/09	600	11/20/09	440	12/21/09	ND	01/27/10	490	02/17/10	620	03/22/10	510	04/26/10	530	06/15/10	560	09/16/10	560
			Dichlorodifluoromethane	10/14/09	6.1	11/20/09	5.1	12/21/09	ND	01/27/10	5.6	02/17/10	7	03/22/10	6.6	04/26/10	5.4	06/15/10	ND	09/16/10	ND
			Hexane	10/14/09	ND	11/20/09	ND	12/21/09	9	01/27/10	ND	02/17/10	ND	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Methylene Chloride	10/14/09	6.5	11/20/09	5.4	12/21/09	ND	01/27/10	5.6	02/17/10	5	03/22/10	5.1	04/26/10	4.7	06/15/10	ND	09/16/10	ND
			n-Heptane	10/14/09	ND	11/20/09	ND	12/21/09	4.3	01/27/10	ND	02/17/10	ND	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Tetrachloroethene	10/14/09	980	11/20/09	640	12/21/09	ND	01/27/10	900	02/17/10	860	03/22/10	780	04/26/10	880	06/15/10	820	09/16/10	840
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/14/09	11	11/20/09	ND	12/21/09	ND	01/27/10	ND	02/17/10	7.2	03/22/10	7.2	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Trichloroethane[1,1,1-]	10/14/09	20	11/20/09	16	12/21/09	ND	01/27/10	17	02/17/10	22	03/22/10	19	04/26/10	18	06/15/10	ND	09/16/10	ND
			Trichloroethene	10/14/09	400	11/20/09	260	12/21/09	ND	01/27/10	330	02/17/10	380	03/22/10	350	04/26/10	350	06/15/10	280	09/16/10	360
	217	222	Acetone	10/14/09	20	11/20/09	13	12/21/09	ND	01/27/10	ND	02/17/10	ND	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Bromodichloromethane	10/14/09	ND	11/20/09	ND	12/21/09	ND	01/27/10	ND	02/17/10	6.1	03/22/10	6	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Carbon Tetrachloride	10/14/09	400	11/20/09	200	12/21/09	ND	01/27/10	380	02/17/10	510	03/22/10	440	04/26/10	390	06/15/10	280	09/16/10	420
			Chloroform	10/14/09	900	11/20/09	500	12/21/09	ND	01/27/10	800	02/17/10	1000	03/22/10	810	04/26/10	790	06/15/10	710	09/16/10	970
			Dichlorobenzene[1,4-]	10/14/09	ND	11/20/09	ND	12/21/09	ND	01/27/10	5 (J)	02/17/10	ND	03/22/10	6.9	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Dichlorodifluoromethane	10/14/09	8.1	11/20/09	4.8	12/21/09	ND	01/27/10	8.4	02/17/10	9.8	03/22/10	8.6	04/26/10	6.8	06/15/10	ND	09/16/10	ND
			Dichloroethane[1,2-]	10/14/09	7.3	11/20/09	4.1	12/21/09	ND	01/27/10	7.3	02/17/10	7.7	03/22/10	6.9	04/26/10	6.2	06/15/10	ND	09/16/10	ND
			Dichloroethene[1,1-]	10/14/09	17	11/20/09	5.4	12/21/09	ND	01/27/10	10	02/17/10	12	03/22/10	11	04/26/10	8.9	06/15/10	ND	09/16/10	ND
			Dichloroethene[cis-1,2-]	10/14/09	ND	11/20/09	ND	12/21/09	ND	01/27/10	ND	02/17/10	3.7	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Methylene Chloride	10/14/09	610	11/20/09	310	12/21/09	ND	01/27/10	580	02/17/10	560	03/22/10	510	04/26/10	460	06/15/10	470	09/16/10	610
			Propylene	10/14/09	13	11/20/09	ND	12/21/09	ND	01/27/10	ND	02/17/10	ND	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Tetrachloroethene	10/14/09	330	11/20/09	160	12/21/09	ND	01/27/10	310	02/17/10	330	03/22/10	270	04/26/10	290	06/15/10	220	09/16/10	310
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/14/09	39	11/20/09	12	12/21/09	ND	01/27/10	25	02/17/10	30	03/22/10	28	04/26/10	24	06/15/10	ND	09/16/10	ND
			Trichloroethane[1,1,1-]	10/14/09	34	11/20/09	18	12/21/09	ND	01/27/10	33	02/17/10	43	03/22/10	37	04/26/10	34	06/15/10	ND	09/16/10	ND
			Trichloroethane[1,1,2-]	10/14/09	20	11/20/09	10	12/21/09	ND	01/27/10	18	02/17/10	18	03/22/10	15	04/26/10	16	06/15/10	ND	09/16/10	ND
			Trichloroethene	10/14/09	1100	11/20/09	520	12/21/09	ND	01/27/10	940	02/17/10	1100	03/22/10	900	04/26/10	900	06/15/10	610	09/16/10	1000
	242.5	247.5	Acetone	10/14/09	43	11/20/09	ND	12/21/09	ND	01/27/10	ND	02/17/10	ND	03/22/10	ND	04/26/10	14	06/15/10	ND	09/16/10	ND
			Butanone[2-]	10/14/09	6	11/20/09	ND	12/21/09	ND	01/27/10	ND	02/17/10	ND	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND

Table D-1.0-2 (continued)

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Analyte	Oct 2009 Collection Date	Oct 2009 Result (µg/m³)	Nov–Dec 2009 Collection Date	Nov–Dec 2009 Result (µg/m³)	Dec 2009 Collection Date	Dec 2009 Result (µg/m³)	Jan 2010 Collection Date	Jan 2010 Result (µg/m³)	Feb 2010 Collection Date	Feb 2010 Result (µg/m³)	Mar 2010 Collection Date	Mar 2010 Result (µg/m³)	Apr 2010 Collection Date	Apr 2010 Result (µg/m³)	Jun 2010 Collection Date	Jun 2010 Result (µg/m³)	Sep 2010 Collection Date	Sep 2010 Result (µg/m³)
21-603058	242.5	247.5	Carbon Disulfide	10/14/09	ND	11/20/09	4.3	12/21/09	ND	01/27/10	ND	02/17/10	ND	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Carbon Tetrachloride	10/14/09	480	11/20/09	160	12/21/09	400	01/27/10	540	02/17/10	700	03/22/10	590	04/26/10	470	06/15/10	310	09/16/10	470
			Chloroform	10/14/09	1000	11/20/09	400	12/21/09	780	01/27/10	1000	02/17/10	1200	03/22/10	990	04/26/10	860	06/15/10	710	09/16/10	1100
			Dichlorobenzene[1,4-]	10/14/09	11	11/20/09	ND	12/21/09	8.6	01/27/10	12	02/17/10	13	03/22/10	15	04/26/10	8.7	06/15/10	ND	09/16/10	ND
			Dichlorodifluoromethane	10/14/09	7.6	11/20/09	ND	12/21/09	7	01/27/10	8.8	02/17/10	10	03/22/10	8.8	04/26/10	6.2	06/15/10	ND	09/16/10	ND
			Dichloroethane[1,2-]	10/14/09	17	11/20/09	6.5	12/21/09	13	01/27/10	20	02/17/10	20	03/22/10	18	04/26/10	14	06/15/10	ND	09/16/10	ND
			Dichloroethene[1,1-]	10/14/09	21	11/20/09	5.4	12/21/09	11	01/27/10	16	02/17/10	18	03/22/10	15	04/26/10	11	06/15/10	ND	09/16/10	ND
			Dichloroethene[cis-1,2-]	10/14/09	6 (J+)	11/20/09	ND	12/21/09	3.5 (J)	01/27/10	ND	02/17/10	ND	03/22/10	4.7	04/26/10	4.1	06/15/10	ND	09/16/10	ND
			Methylene Chloride	10/14/09	1400	11/20/09	550	12/21/09	960	01/27/10	1400	02/17/10	1400	03/22/10	1100	04/26/10	940	06/15/10	930	09/16/10	1400
			Propylene	10/14/09	23	11/20/09	ND	12/21/09	ND	01/27/10	ND	02/17/10	ND	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Tetrachloroethene	10/14/09	180	11/20/09	56	12/21/09	130	01/27/10	200	02/17/10	200	03/22/10	170	04/26/10	160	06/15/10	110	09/16/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/14/09	43	11/20/09	8.5	12/21/09	22	01/27/10	33	02/17/10	38	03/22/10	32	04/26/10	25	06/15/10	ND	09/16/10	ND
			Trichloroethane[1,1,1-]	10/14/09	26	11/20/09	8.8	12/21/09	22	01/27/10	30	02/17/10	36	03/22/10	31	04/26/10	25	06/15/10	ND	09/16/10	ND
			Trichloroethane[1,1,2-]	10/14/09	45	11/20/09	17	12/21/09	34	01/27/10	48	02/17/10	48	03/22/10	39	04/26/10	37	06/15/10	ND	09/16/10	ND
			Trichloroethene	10/14/09	1300	11/20/09	400	12/21/09	920	01/27/10	1300	02/17/10	1400	03/22/10	1200	04/26/10	1000	06/15/10	670	09/16/10	880
	339.5	344.5	Acetone	10/14/09	32	11/20/09	ND	12/21/09	ND	01/27/10	ND	02/17/10	ND	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Carbon Tetrachloride	10/14/09	460	11/20/09	340	12/21/09	6.5	01/27/10	420	02/17/10	640	03/22/10	610	04/26/10	480	06/15/10	320	09/16/10	570
			Chloroform	10/14/09	1000	11/20/09	750	12/21/09	ND	01/27/10	970	02/17/10	1400	03/22/10	1200	04/26/10	1000	06/15/10	790	09/16/10	1300
			Dichlorobenzene[1,4-]	10/14/09	ND	11/20/09	ND	12/21/09	ND	01/27/10	15	02/17/10	22	03/22/10	25	04/26/10	12	06/15/10	ND	09/16/10	ND
			Dichloroethane[1,2-]	10/14/09	25	11/20/09	14	12/21/09	ND	01/27/10	26	02/17/10	31	03/22/10	29	04/26/10	22	06/15/10	ND	09/16/10	ND
			Dichloroethene[1,1-]	10/14/09	20	11/20/09	11	12/21/09	ND	01/27/10	14	02/17/10	20	03/22/10	19	04/26/10	14	06/15/10	ND	09/16/10	ND
			Ethanol	10/14/09	ND	11/20/09	58 (J)	12/21/09	ND	01/27/10	ND	02/17/10	ND	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Methylene Chloride	10/14/09	2200	11/20/09	1400	12/21/09	4.7	01/27/10	2000	02/17/10	2300	03/22/10	1800	04/26/10	1500	06/15/10	1200	09/16/10	1600
			Tetrachloroethene	10/14/09	79	11/20/09	44	12/21/09	ND	01/27/10	73	02/17/10	86	03/22/10	73	04/26/10	93	06/15/10	ND	09/16/10	81
			Toluene	10/14/09	ND	11/20/09	ND	12/21/09	ND	01/27/10	9.5	02/17/10	ND	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/14/09	37	11/20/09	17	12/21/09	ND	01/27/10	23	02/17/10	33	03/22/10	30	04/26/10	23	06/15/10	ND	09/16/10	ND
			Trichloroethane[1,1,1-]	10/14/09	ND	11/20/09	ND	12/21/09	ND	01/27/10	10	02/17/10	15	03/22/10	14	04/26/10	12	06/15/10	ND	09/16/10	ND
			Trichloroethane[1,1,2-]	10/14/09	32	11/20/09	18	12/21/09	ND	01/27/10	32	02/17/10	39	03/22/10	36	04/26/10	28	06/15/10	ND	09/16/10	ND
			Trichloroethene	10/14/09	1100	11/20/09	690	12/21/09	ND	01/27/10	970	02/17/10	1300	03/22/10	1200	04/26/10	1000	06/15/10	600	09/16/10	1300
21-603059	77.5	82.5	Acetone	10/20/09	ND	11/18/09	20	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	ND	04/21/10	9.4	06/09/10	ND	09/09/10	ND
			Bromodichloromethane	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	ND	02/10/10	6.2	03/16/10	5.9 (J)	04/21/10	5.8 (J)	06/09/10	ND	09/09/10	ND
			Butanone[2-]	10/20/09	3.5	11/18/09	3.3	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Carbon Tetrachloride	10/20/09	58	11/18/09	52	12/16/09	53	01/20/10	29	02/10/10	69	03/16/10	63	04/21/10	59	06/09/10	71 (J+)	09/09/10	60
			Chloroform	10/20/09	1000	11/18/09	1000	12/16/09	940	01/20/10	400	02/10/10	1300	03/16/10	1100	04/21/10	1200	06/09/10	1300	09/09/10	1300
			Dichlorodifluoromethane	10/20/09	5.2	11/18/09	5.4	12/16/09	4.7	01/20/10	ND	02/10/10	6.7	03/16/10	6.2	04/21/10	5.8	06/09/10	ND	09/09/10	ND

Table D-1.0-2 (continued)

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Analyte	Oct 2009		Nov–Dec 2009		Dec 2009		Jan 2010		Feb 2010		Mar 2010		Apr 2010		Jun 2010		Sep 2010	
				Collection Date	Result ($\mu g/m^3$)	Collection Date	Result ($\mu g/m^3$)	Collection Date	Result ($\mu g/m^3$)	Collection Date	Result ($\mu g/m^3$)	Collection Date	Result ($\mu g/m^3$)	Collection Date	Result ($\mu g/m^3$)	Collection Date	Result ($\mu g/m^3$)	Collection Date	Result ($\mu g/m^3$)	Collection Date	Result ($\mu g/m^3$)
21-603059	77.5	82.5	Ethanol	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	120	02/10/10	ND	03/16/10	ND	04/21/10	7.1	06/09/10	ND	09/09/10	ND
			Methylene Chloride	10/20/09	ND	11/18/09	3.3 (J-)	12/16/09	3.1	01/20/10	4.3	02/10/10	ND	03/16/10	ND	04/21/10	3.7	06/09/10	ND	09/09/10	ND
			Tetrachloroethene	10/20/09	1500	11/18/09	1700	12/16/09	1700	01/20/10	910	02/10/10	2000	03/16/10	1800	04/21/10	1800	06/09/10	1700	09/09/10	2000
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	ND	02/10/10	7.1	03/16/10	7.3	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Trichloroethane[1,1,1-]	10/20/09	17	11/18/09	15	12/16/09	16	01/20/10	8.4	02/10/10	20	03/16/10	17	04/21/10	18	06/09/10	20 (J+)	09/09/10	ND
			Trichloroethene	10/20/09	630	11/18/09	600	12/16/09	600	01/20/10	280	02/10/10	810	03/16/10	700	04/21/10	690	06/09/10	740	09/09/10	750
	187.5	192.5	Bromodichloromethane	10/20/09	6.4	11/18/09	6.1	12/16/09	6.3	01/20/10	6.5	02/10/10	8	03/16/10	6.7	04/21/10	7.2	06/09/10	ND	09/09/10	ND
			Butanone[2-]	10/20/09	4.5	11/18/09	ND	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Carbon Tetrachloride	10/20/09	130	11/18/09	120	12/16/09	120	01/20/10	130	02/10/10	160	03/16/10	140	04/21/10	150	06/09/10	170 (J+)	09/09/10	140
			Chloroform	10/20/09	580	11/18/09	560	12/16/09	550	01/20/10	560	02/10/10	700	03/16/10	570	04/21/10	700	06/09/10	670	09/09/10	690
			Dichlorodifluoromethane	10/20/09	6.2	11/18/09	6.4	12/16/09	5.9	01/20/10	6.2	02/10/10	8.6	03/16/10	7.4	04/21/10	7.7	06/09/10	9.5 (J+)	09/09/10	ND
			Dichloroethene[1,1-]	10/20/09	4.6 (J)	11/18/09	5.4 (J-)	12/16/09	5.5	01/20/10	6.5	02/10/10	7	03/16/10	6	04/21/10	5.3	06/09/10	ND	09/09/10	ND
			Ethanol	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	24	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Methylene Chloride	10/20/09	ND	11/18/09	24 (J-)	12/16/09	24	01/20/10	25	02/10/10	ND	03/16/10	23	04/21/10	28	06/09/10	25	09/09/10	35
			Propylene	10/20/09	8.4	11/18/09	7.4	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Tetrachloroethene	10/20/09	340	11/18/09	320	12/16/09	370	01/20/10	340	02/10/10	430	03/16/10	370	04/21/10	390	06/09/10	340	09/09/10	390
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/20/09	12 (J)	11/18/09	14	12/16/09	15	01/20/10	16	02/10/10	20	03/16/10	16	04/21/10	16	06/09/10	17	09/09/10	ND
			Trichloroethane[1,1,1-]	10/20/09	24	11/18/09	21	12/16/09	22	01/20/10	22	02/10/10	27	03/16/10	24	04/21/10	25	06/09/10	28 (J+)	09/09/10	ND
			Trichloroethene	10/20/09	430	11/18/09	410	12/16/09	420	01/20/10	430	02/10/10	560	03/16/10	450	04/21/10	480	06/09/10	480	09/09/10	500
	229.5	234.5	Acetone	10/20/09	ND	11/18/09	13	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	23	09/09/10	ND
			Bromodichloromethane	10/20/09	7.1	11/18/09	6.9	12/16/09	ND	01/20/10	6.7	02/10/10	8.6	03/16/10	8.1	04/21/10	7.8	06/09/10	ND	09/09/10	ND
			Butanone[2-]	10/20/09	ND	11/18/09	3.3	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Carbon Tetrachloride	10/20/09	390	11/18/09	290	12/16/09	200	01/20/10	380	02/10/10	460	03/16/10	360	04/21/10	390	06/09/10	330 (J+)	09/09/10	390
			Chloroform	10/20/09	700	11/18/09	640	12/16/09	520	01/20/10	660	02/10/10	810	03/16/10	680	04/21/10	770	06/09/10	650	09/09/10	800
			Cyclohexane	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	ND	02/10/10	3.1	03/16/10	3	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Dichlorodifluoromethane	10/20/09	8.8	11/18/09	8.4	12/16/09	6.4	01/20/10	8.7	02/10/10	11	03/16/10	9.6	04/21/10	9.6	06/09/10	10 (J+)	09/09/10	ND
			Dichloroethene[1,1-]	10/20/09	12 (J)	11/18/09	13 (J-)	12/16/09	8.9	01/20/10	18	02/10/10	17	03/16/10	15	04/21/10	13	06/09/10	9.8	09/09/10	ND
			Ethanol	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	7	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Methylene Chloride	10/20/09	54 (J-)	11/18/09	40 (J-)	12/16/09	33	01/20/10	57	02/10/10	64	03/16/10	48	04/21/10	55	06/09/10	40	09/09/10	64
			Propylene	10/20/09	14	11/18/09	13	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Tetrachloroethene	10/20/09	260	11/18/09	240	12/16/09	240	01/20/10	250	02/10/10	300	03/16/10	280	04/21/10	270	06/09/10	200	09/09/10	280
			Toluene	10/20/09	ND	11/18/09	ND	12/16/09	3.4	01/20/10	ND	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/20/09	28 (J)	11/18/09	30	12/16/09	20	01/20/10	40	02/10/10	43	03/16/10	35	04/21/10	34	06/09/10	26	09/09/10	ND
			Trichloroethane[1,1,1-]	10/20/09	28	11/18/09	24	12/16/09	20	01/20/10	25	02/10/10	31	03/16/10	28	04/21/10	27	06/09/10	25 (J+)	09/09/10	ND
			Trichloroethene	10/20/09	660	11/18/09	570	12/16/09	440	01/20/10	760	02/10/10	840	03/16/10	680	04/21/10	730	06/09/10	580	09/09/10	750

Table D-1.0-2 (continued)

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Analyte	Oct 2009		Nov–Dec 2009		Dec 2009		Jan 2010		Feb 2010		Mar 2010		Apr 2010		Jun 2010		Sep 2010	
				Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)
21-603059	229.5	234.5	Trimethylbenzene[1,2,4-]	10/20/09	ND	11/18/09	ND	12/16/09	6.3	01/20/10	ND	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Xylene[1,3-]+Xylene[1,4-]	10/20/09	ND	11/18/09	ND	12/16/09	4.4	01/20/10	ND	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
	292.5	297.5	Bromodichloromethane	10/20/09	8.8	11/18/09	7.8	12/16/09	8.3	01/20/10	8.4	02/10/10	11	03/16/10	11	04/21/10	10	06/09/10	ND	09/09/10	ND
			Carbon Disulfide	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	8.3	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Carbon Tetrachloride	10/20/09	580	11/18/09	560	12/16/09	550	01/20/10	560	02/10/10	760	03/16/10	680	04/21/10	690	06/09/10	680 (J+)	09/09/10	640
			Chloroform	10/20/09	630	11/18/09	610	12/16/09	610	01/20/10	630	02/10/10	800	03/16/10	670	04/21/10	800	06/09/10	660	09/09/10	730
			Cyclohexane	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	ND	02/10/10	3	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Dichlorodifluoromethane	10/20/09	9	11/18/09	9.4	12/16/09	8.8	01/20/10	8.9	02/10/10	12	03/16/10	11	04/21/10	11	06/09/10	12 (J+)	09/09/10	ND
			Dichloroethane[1,2-]	10/20/09	4.2	11/18/09	4	12/16/09	4.4	01/20/10	4.1	02/10/10	5.6	03/16/10	4.8	04/21/10	4.7	06/09/10	ND	09/09/10	ND
			Dichloroethene[1,1-]	10/20/09	17 (J)	11/18/09	23 (J-)	12/16/09	23	01/20/10	26	02/10/10	30	03/16/10	28	04/21/10	22	06/09/10	20	09/09/10	ND
			Dichloroethene[cis-1,2-]	10/20/09	3.8	11/18/09	ND	12/16/09	3.5	01/20/10	3.5	02/10/10	4.5	03/16/10	3.8	04/21/10	3.6	06/09/10	ND	09/09/10	ND
			Ethanol	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	26	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Methylene Chloride	10/20/09	140 (J-)	11/18/09	270 (J-)	12/16/09	280	01/20/10	280	02/10/10	360	03/16/10	280	04/21/10	320	06/09/10	260	09/09/10	350
			Propylene	10/20/09	18	11/18/09	18	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Tetrachloroethene	10/20/09	180	11/18/09	170	12/16/09	180	01/20/10	180	02/10/10	210	03/16/10	180	04/21/10	200	06/09/10	140	09/09/10	180
			Toluene	10/20/09	ND	11/18/09	4.1	12/16/09	3.3	01/20/10	ND	02/10/10	4	03/16/10	3.8	04/21/10	3.4	06/09/10	ND	09/09/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/20/09	35 (J)	11/18/09	47	12/16/09	44	01/20/10	50	02/10/10	61	03/16/10	55	04/21/10	48	06/09/10	42	09/09/10	ND
			Trichloroethane[1,1,1-]	10/20/09	24	11/18/09	22	12/16/09	23	01/20/10	23	02/10/10	30	03/16/10	27	04/21/10	28	06/09/10	26 (J+)	09/09/10	ND
			Trichloroethane[1,1,2-]	10/20/09	22	11/18/09	20	12/16/09	20	01/20/10	20	02/10/10	25	03/16/10	21	04/21/10	22	06/09/10	15	09/09/10	ND
			Trichloroethene	10/20/09	960	11/18/09	980	12/16/09	970	01/20/10	1100	02/10/10	1400	03/16/10	1100	04/21/10	1200	06/09/10	1000	09/09/10	1100
	372.5	377.5	Acetone	10/20/09	ND	11/18/09	ND	12/16/09	13	01/20/10	ND	02/10/10	ND	03/16/10	11	04/21/10	12	06/09/10	ND	09/09/10	ND
			Benzene	10/20/09	2.8 (J)	11/18/09	2.7	12/16/09	ND	01/20/10	3	02/10/10	4	03/16/10	3.2	04/21/10	2.8	06/09/10	ND	09/09/10	ND
			Bromodichloromethane	10/20/09	11	11/18/09	10	12/16/09	7.2	01/20/10	11	02/10/10	14	03/16/10	12	04/21/10	13	06/09/10	ND	09/09/10	ND
			Butanone[2-]	10/20/09	2.6	11/18/09	ND	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	2.5 (J)	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Carbon Disulfide	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	5.2	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Carbon Tetrachloride	10/20/09	480	11/18/09	500	12/16/09	330	01/20/10	510	02/10/10	670	03/16/10	590	04/21/10	530	06/09/10	530 (J+)	09/09/10	560
			Chloroform	10/20/09	670	11/18/09	700	12/16/09	490	01/20/10	730	02/10/10	890	03/16/10	750	04/21/10	780	06/09/10	710	09/09/10	840
			Dichlorobenzene[1,4-]	10/20/09	8.2	11/18/09	7	12/16/09	5.4	01/20/10	7	02/10/10	7.6	03/16/10	17	04/21/10	6.1	06/09/10	ND	09/09/10	ND
			Dichlorodifluoromethane	10/20/09	ND	11/18/09	4.4	12/16/09	ND	01/20/10	ND	02/10/10	5.5	03/16/10	5	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Dichloroethane[1,2-]	10/20/09	12	11/18/09	12	12/16/09	9.2	01/20/10	13	02/10/10	16	03/16/10	14	04/21/10	14	06/09/10	15	09/09/10	ND
			Dichloroethene[1,1-]	10/20/09	33 (J)	11/18/09	51 (J-)	12/16/09	34	01/20/10	56	02/10/10	63	03/16/10	58	04/21/10	41	06/09/10	39	09/09/10	59
			Dichloroethene[cis-1,2-]	10/20/09	3.9	11/18/09	4.2	12/16/09	ND	01/20/10	4.1	02/10/10	4.9	03/16/10	4.5	04/21/10	3.5	06/09/10	ND	09/09/10	ND
			Ethanol	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	70	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Ethyltoluene[4-]	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	4.6	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Methyl-2-pentanone[4-]	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	7.5	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Methylene Chloride	10/20/09	730 (J-)	11/18/09	880 (J-)	12/16/09	600	01/20/10	880	02/10/10	1100	03/16/10	840	04/21/10	870	06/09/10	790	09/09/10	1100

Table D-1.0-2 (continued)

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Analyte	Oct 2009		Nov–Dec 2009		Dec 2009		Jan 2010		Feb 2010		Mar 2010		Apr 2010		Jun 2010		Sep 2010	
				Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)
21-603059	372.5	377.5	Propylene	10/20/09	12	11/18/09	13	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Tetrachloroethene	10/20/09	99	11/18/09	91	12/16/09	78	01/20/10	110	02/10/10	120	03/16/10	100	04/21/10	100	06/09/10	70	09/09/10	100
			Toluene	10/20/09	5.6	11/18/09	5.3	12/16/09	4.2	01/20/10	5.5	02/10/10	8.4	03/16/10	10	04/21/10	6	06/09/10	ND	09/09/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	10/20/09	17 (J)	11/18/09	24	12/16/09	15	01/20/10	25	02/10/10	29	03/16/10	28	04/21/10	21	06/09/10	19	09/09/10	ND
			Trichloroethane[1,1,1-]	10/20/09	10	11/18/09	10	12/16/09	7.7	01/20/10	11	02/10/10	14	03/16/10	13	04/21/10	11	06/09/10	11 (J+)	09/09/10	ND
			Trichloroethane[1,1,2-]	10/20/09	100	11/18/09	96	12/16/09	70	01/20/10	100	02/10/10	120	03/16/10	100	04/21/10	110	06/09/10	74	09/09/10	100
			Trichloroethene	10/20/09	1000	11/18/09	1100	12/16/09	780	01/20/10	1200	02/10/10	1500	03/16/10	1200	04/21/10	1200	06/09/10	1000	09/09/10	1200
			Trimethylbenzene[1,2,4-]	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	11	04/21/10	ND	06/09/10	ND	09/09/10	ND
			Xylene[1,3-]+Xylene[1,4-]	10/20/09	ND	11/18/09	ND	12/16/09	ND	01/20/10	ND	02/10/10	ND	03/16/10	7.5	04/21/10	ND	06/09/10	ND	09/09/10	ND
21-607955	71.1	76.4	Carbon Disulfide	NS[b]	NS	12/02/09	9.4	12/18/09	ND	01/25/10	8.2	02/12/10	6.9	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Carbon Tetrachloride	NS	NS	12/02/09	89	12/18/09	65	01/25/10	70	02/12/10	80	03/18/10	85	04/22/10	81	06/10/10	81	09/13/10	80
			Chloroform	NS	NS	12/02/09	680	12/18/09	520	01/25/10	710	02/12/10	730	03/18/10	740	04/22/10	760	06/10/10	830	09/13/10	900
			Dichlorodifluoromethane	NS	NS	12/02/09	ND	12/18/09	ND	01/25/10	ND	02/12/10	ND	03/18/10	7.6	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Methylene Chloride	NS	NS	12/02/09	66	12/18/09	33	01/25/10	27	02/12/10	17	03/18/10	13	04/22/10	9.9	06/10/10	ND	09/13/10	ND
			Tetrachloroethene	NS	NS	12/02/09	2000	12/18/09	1800	01/25/10	3200	02/12/10	2600	03/18/10	2600	04/22/10	2900	06/10/10	3100	09/13/10	3300
			Toluene	NS	NS	12/02/09	29	12/18/09	22	01/25/10	6.7	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Trichloroethane[1,1,1-]	NS	NS	12/02/09	16	12/18/09	ND	01/25/10	15	02/12/10	16	03/18/10	18	04/22/10	18	06/10/10	ND	09/13/10	ND
			Trichloroethene	NS	NS	12/02/09	430	12/18/09	350	01/25/10	520	02/12/10	500	03/18/10	540	04/22/10	540	06/10/10	460	09/13/10	590
	153.8	159.7	Acetone	NS	NS	12/03/09	ND	12/18/09	9.1	01/25/10	ND	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Carbon Disulfide	NS	NS	12/03/09	4.6	12/18/09	6.1	01/25/10	5	02/12/10	4.5	03/18/10	ND	04/22/10	3.3	06/10/10	ND	09/13/10	ND
			Carbon Tetrachloride	NS	NS	12/03/09	190	12/18/09	170	01/25/10	130	02/12/10	190	03/18/10	180	04/22/10	210	06/10/10	180	09/13/10	190
			Chloroform	NS	NS	12/03/09	560	12/18/09	610	01/25/10	540	02/12/10	680	03/18/10	610	04/22/10	690	06/10/10	720	09/13/10	810
			Cyclohexane	NS	NS	12/03/09	ND	12/18/09	ND	01/25/10	ND	02/12/10	2.9	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Dichlorodifluoromethane	NS	NS	12/03/09	8	12/18/09	9.2	01/25/10	7.4	02/12/10	9.5	03/18/10	ND	04/22/10	7.6	06/10/10	ND	09/13/10	ND
			Dichloroethane[1,2-]	NS	NS	12/03/09	4.4	12/18/09	3.9	01/25/10	3.1	02/12/10	3.6	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Methylene Chloride	NS	NS	12/03/09	290	12/18/09	220	01/25/10	150	02/12/10	140	03/18/10	140	04/22/10	160	06/10/10	160	09/13/10	180
			Tetrachloroethene	NS	NS	12/03/09	390	12/18/09	430	01/25/10	540	02/12/10	590	03/18/10	550	04/22/10	640	06/10/10	660	09/13/10	700
			Toluene	NS	NS	12/03/09	22	12/18/09	18	01/25/10	6.3	02/12/10	7.8	03/18/10	4.7	04/22/10	4.7	06/10/10	ND	09/13/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	NS	NS	12/03/09	9.8	12/18/09	9.6	01/25/10	8.3	02/12/10	10	03/18/10	11	04/22/10	11	06/10/10	ND	09/13/10	ND
			Trichloroethane[1,1,1-]	NS	NS	12/03/09	18	12/18/09	19	01/25/10	17	02/12/10	24	03/18/10	22	04/22/10	24	06/10/10	ND	09/13/10	ND
			Trichloroethane[1,1,2-]	NS	NS	12/03/09	6.3	12/18/09	5.3	01/25/10	5.6	02/12/10	6.4	03/18/10	5.8	04/22/10	6.8	06/10/10	ND	09/13/10	ND
			Trichloroethene	NS	NS	12/03/09	490	12/18/09	500	01/25/10	490	02/12/10	570	03/18/10	560	04/22/10	640	06/10/10	530	09/13/10	660
	173.4	179	Acetone	NS	NS	12/02/09	31	12/18/09	16	01/25/10	ND	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Carbon Disulfide	NS	NS	12/02/09	ND	12/18/09	7.2	01/25/10	5.8	02/12/10	5.9	03/18/10	30	04/22/10	3.5	06/10/10	ND	09/13/10	ND
			Carbon Tetrachloride	NS	NS	12/02/09	ND	12/18/09	220	01/25/10	150	02/12/10	240	03/18/10	240	04/22/10	250	06/10/10	230	09/13/10	240

Table D-1.0-2 (continued)

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Analyte	Oct 2009		Nov–Dec 2009		Dec 2009		Jan 2010		Feb 2010		Mar 2010		Apr 2010		Jun 2010		Sep 2010	
				Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)
21-607955	173.4	179	Chloroform	NS	NS	12/02/09	19	12/18/09	680	01/25/10	520	02/12/10	730	03/18/10	670	04/22/10	720	06/10/10	770	09/13/10	850
			Cyclohexane	NS	NS	12/02/09	ND	12/18/09	ND	01/25/10	ND	02/12/10	2.9	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Dichlorodifluoromethane	NS	NS	12/02/09	ND	12/18/09	9.2	01/25/10	6.4	02/12/10	9.4	03/18/10	9.1	04/22/10	7.8	06/10/10	ND	09/13/10	ND
			Dichloroethane[1,2-]	NS	NS	12/02/09	ND	12/18/09	5.2	01/25/10	4.5	02/12/10	5.5	03/18/10	5.1	04/22/10	5.2	06/10/10	ND	09/13/10	ND
			Dichloroethene[1,1-]	NS	NS	12/02/09	ND	12/18/09	4.1	01/25/10	ND	02/12/10	4.9	03/18/10	4.4	04/22/10	4.3	06/10/10	ND	09/13/10	ND
			Methylene Chloride	NS	NS	12/02/09	25	12/18/09	370	01/25/10	260	02/12/10	280	03/18/10	260	04/22/10	270	06/10/10	310	09/13/10	350
			Tetrachloroethene	NS	NS	12/02/09	ND	12/18/09	420	01/25/10	450	02/12/10	520	03/18/10	480	04/22/10	510	06/10/10	530	09/13/10	590
			Toluene	NS	NS	12/02/09	ND	12/18/09	42	01/25/10	16	02/12/10	19	03/18/10	11	04/22/10	8	06/10/10	ND	09/13/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	NS	NS	12/02/09	ND	12/18/09	11	01/25/10	8.3	02/12/10	12	03/18/10	13	04/22/10	13	06/10/10	ND	09/13/10	ND
			Trichloroethane[1,1,1-]	NS	NS	12/02/09	ND	12/18/09	22	01/25/10	16	02/12/10	26	03/18/10	25	04/22/10	26	06/10/10	ND	09/13/10	ND
			Trichloroethane[1,1,2-]	NS	NS	12/02/09	ND	12/18/09	9.2	01/25/10	8.4	02/12/10	9.8	03/18/10	ND	04/22/10	10	06/10/10	ND	09/13/10	ND
			Trichloroethene	NS	NS	12/02/09	20	12/18/09	580	01/25/10	500	02/12/10	650	03/18/10	650	04/22/10	680	06/10/10	580	09/13/10	750
	225.9	232.1	Acetone	NS	NS	12/02/09	100	12/17/09	14	01/25/10	ND	02/12/10	ND	03/18/10	26	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Benzene	NS	NS	12/02/09	3	12/17/09	2.9	01/25/10	ND	02/12/10	3	03/18/10	ND	04/22/10	3	06/10/10	ND	09/13/10	ND
			Bromodichloromethane	NS	NS	12/02/09	5.5	12/17/09	ND	01/25/10	ND	02/12/10	7.4	03/18/10	ND	04/22/10	5.3	06/10/10	ND	09/13/10	ND
			Butanone[2-]	NS	NS	12/02/09	2.6	12/17/09	ND	01/25/10	ND	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Carbon Disulfide	NS	NS	12/02/09	20	12/17/09	12	01/25/10	16	02/12/10	8	03/18/10	ND	04/22/10	14	06/10/10	ND	09/13/10	ND
			Carbon Tetrachloride	NS	NS	12/02/09	340	12/17/09	340	01/25/10	400	02/12/10	480	03/18/10	470	04/22/10	430	06/10/10	480	09/13/10	520
			Chloroform	NS	NS	12/02/09	680	12/17/09	730	01/25/10	880	02/12/10	900	03/18/10	860	04/22/10	780	06/10/10	1000	09/13/10	1100
			Cyclohexane	NS	NS	12/02/09	3.6	12/17/09	ND	01/25/10	ND	02/12/10	3.4	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Dichlorobenzene[1,4-]	NS	NS	12/02/09	ND	12/17/09	ND	01/25/10	ND	02/12/10	6.5	03/18/10	7.5	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Dichlorodifluoromethane	NS	NS	12/02/09	7.4	12/17/09	7.9	01/25/10	9.2	02/12/10	10	03/18/10	9.6	04/22/10	7.2	06/10/10	ND	09/13/10	ND
			Dichloroethane[1,2-]	NS	NS	12/02/09	11	12/17/09	12	01/25/10	18	02/12/10	16	03/18/10	16	04/22/10	14	06/10/10	ND	09/13/10	ND
			Dichloroethene[1,1-]	NS	NS	12/02/09	8	12/17/09	8.1	01/25/10	9.8	02/12/10	9.4	03/18/10	11	04/22/10	9.2	06/10/10	ND	09/13/10	ND
			Dichloroethene[cis-1,2-]	NS	NS	12/02/09	ND	12/17/09	ND	01/25/10	ND	02/12/10	3.5	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Hexane	NS	NS	12/02/09	2.9	12/17/09	ND	01/25/10	ND	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Methylene Chloride	NS	NS	12/02/09	880	12/17/09	870	01/25/10	1300	02/12/10	960	03/18/10	910	04/22/10	880	06/10/10	1200	09/13/10	1400
			Tetrachloroethene	NS	NS	12/02/09	220	12/17/09	230	01/25/10	290	02/12/10	260	03/18/10	260	04/22/10	200	06/10/10	280	09/13/10	280
			Toluene	NS	NS	12/02/09	90	12/17/09	74	01/25/10	33	02/12/10	35	03/18/10	24	04/22/10	17	06/10/10	ND	09/13/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	NS	NS	12/02/09	16	12/17/09	15	01/25/10	21	02/12/10	20	03/18/10	19	04/22/10	18	06/10/10	ND	09/13/10	ND
			Trichloroethane[1,1,1-]	NS	NS	12/02/09	17	12/17/09	19	01/25/10	22	02/12/10	26	03/18/10	25	04/22/10	21	06/10/10	ND	09/13/10	ND
			Trichloroethane[1,1,2-]	NS	NS	12/02/09	16	12/17/09	17	01/25/10	28	02/12/10	22	03/18/10	22	04/22/10	22	06/10/10	ND	09/13/10	ND
			Trichloroethene	NS	NS	12/02/09	710	12/17/09	760	01/25/10	1000	02/12/10	950	03/18/10	980	04/22/10	880	06/10/10	930	09/13/10	1100
	326.6	333.4	Acetone	NS	NS	12/03/09	18	12/17/09	8.4	01/25/10	ND	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Butanol[1-]	NS	NS	12/03/09	ND	12/17/09	ND	01/25/10	ND	02/12/10	ND	03/18/10	24	04/22/10	ND	06/10/10	ND	09/13/10	ND

Table D-1.0-2 (continued)

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Analyte	Oct 2009 Collection Date	Oct 2009 Result (µg/m³)	Nov–Dec 2009 Collection Date	Nov–Dec 2009 Result (µg/m³)	Dec 2009 Collection Date	Dec 2009 Result (µg/m³)	Jan 2010 Collection Date	Jan 2010 Result (µg/m³)	Feb 2010 Collection Date	Feb 2010 Result (µg/m³)	Mar 2010 Collection Date	Mar 2010 Result (µg/m³)	Apr 2010 Collection Date	Apr 2010 Result (µg/m³)	Jun 2010 Collection Date	Jun 2010 Result (µg/m³)	Sep 2010 Collection Date	Sep 2010 Result (µg/m³)
21-607955	326.6	333.4	Carbon Disulfide	NS	NS	12/03/09	4.5	12/17/09	7.6	01/25/10	ND	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Carbon Tetrachloride	NS	NS	12/03/09	130	12/17/09	180	01/25/10	360	02/12/10	450	03/18/10	460	04/22/10	400	06/10/10	490	09/13/10	570
			Chloroform	NS	NS	12/03/09	350	12/17/09	450	01/25/10	820	02/12/10	880	03/18/10	920	04/22/10	820	06/10/10	1100	09/13/10	1300
			Dichlorobenzene[1,4-]	NS	NS	12/03/09	ND	12/17/09	ND	01/25/10	ND	02/12/10	ND	03/18/10	13	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Dichlorodifluoromethane	NS	NS	12/03/09	4.6	12/17/09	4.7	01/25/10	ND	02/12/10	ND	03/18/10	7.2	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Dichloroethane[1,2-]	NS	NS	12/03/09	7.5	12/17/09	9.7	01/25/10	20	02/12/10	21	03/18/10	21	04/22/10	17	06/10/10	ND	09/13/10	ND
			Dichloroethene[1,1-]	NS	NS	12/03/09	4	12/17/09	5	01/25/10	11	02/12/10	10	03/18/10	14	04/22/10	10	06/10/10	ND	09/13/10	ND
			Methylene Chloride	NS	NS	12/03/09	660	12/17/09	850	01/25/10	1800	02/12/10	1500	03/18/10	1600	04/22/10	1500	06/10/10	2100	09/13/10	2800
			Tetrachloroethene	NS	NS	12/03/09	110	12/17/09	100	01/25/10	140	02/12/10	120	03/18/10	100	04/22/10	84	06/10/10	100	09/13/10	96
			Toluene	NS	NS	12/03/09	9.4	12/17/09	13	01/25/10	14	02/12/10	19	03/18/10	13	04/22/10	17	06/10/10	ND	09/13/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	NS	NS	12/03/09	ND	12/17/09	8.3	01/25/10	17	02/12/10	17	03/18/10	18	04/22/10	14	06/10/10	ND	09/13/10	ND
			Trichloroethane[1,1,1-]	NS	NS	12/03/09	9.4	12/17/09	5.4	01/25/10	ND	02/12/10	11	03/18/10	11	04/22/10	8.8	06/10/10	ND	09/13/10	ND
			Trichloroethane[1,1,2-]	NS	NS	12/03/09	6.6	12/17/09	8.7	01/25/10	17	02/12/10	16	03/18/10	17	04/22/10	14	06/10/10	ND	09/13/10	ND
			Trichloroethene	NS	NS	12/03/09	290	12/17/09	390	01/25/10	840	02/12/10	870	03/18/10	1000	04/22/10	820	06/10/10	900	09/13/10	1200
	353.3	359.6	Acetone	NS	NS	12/02/09	16	12/17/09	ND	01/25/10	ND	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Carbon Disulfide	NS	NS	12/02/09	5.6	12/17/09	ND	01/25/10	ND	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Carbon Tetrachloride	NS	NS	12/02/09	360	12/17/09	100	01/25/10	410	02/12/10	470	03/18/10	470	04/22/10	470	06/10/10	470	09/13/10	500
			Chloroform	NS	NS	12/02/09	1000	12/17/09	260	01/25/10	1300	02/12/10	1300	03/18/10	1200	04/22/10	1300	06/10/10	1500	09/13/10	1500
			Dichlorobenzene[1,4-]	NS	NS	12/02/09	ND	12/17/09	ND	01/25/10	ND	02/12/10	ND	03/18/10	17	04/22/10	ND	06/10/10	ND	09/13/10	ND
			Dichloroethane[1,2-]	NS	NS	12/02/09	21	12/17/09	5	01/25/10	34	02/12/10	32	03/18/10	32	04/22/10	29	06/10/10	ND	09/13/10	36
			Dichloroethene[1,1-]	NS	NS	12/02/09	15	12/17/09	4.9	01/25/10	20	02/12/10	20	03/18/10	22	04/22/10	18	06/10/10	ND	09/13/10	ND
			Methylene Chloride	NS	NS	12/02/09	2100	12/17/09	530	01/25/10	2700	02/12/10	2200	03/18/10	2100	04/22/10	2100	06/10/10	2500	09/13/10	3000
			Tetrachloroethene	NS	NS	12/02/09	29	12/17/09	8.9	01/25/10	47	02/12/10	41	03/18/10	42	04/22/10	41	06/10/10	ND	09/13/10	ND
			Toluene	NS	NS	12/02/09	83	12/17/09	18	01/25/10	42	02/12/10	41	03/18/10	28	04/22/10	20	06/10/10	ND	09/13/10	ND
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	NS	NS	12/02/09	13	12/17/09	ND	01/25/10	ND	02/12/10	ND	03/18/10	16	04/22/10	16	06/10/10	ND	09/13/10	ND
			Trichloroethane[1,1,2-]	NS	NS	12/02/09	15	12/17/09	ND	01/25/10	26	02/12/10	20	03/18/10	21	04/22/10	22	06/10/10	ND	09/13/10	ND
			Trichloroethene	NS	NS	12/02/09	760	12/17/09	210	01/25/10	1100	02/12/10	1100	03/18/10	1100	04/22/10	1100	06/10/10	980	09/13/10	1200
	459.4	464.8	Carbon Disulfide	NS	NS	12/02/09	ND	12/17/09	ND	01/25/10	6.7	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/15/10	ND
			Carbon Tetrachloride	NS	NS	12/02/09	26	12/17/09	160	01/25/10	320	02/12/10	370	03/18/10	380	04/22/10	350	06/10/10	350	09/15/10	400
			Chloroform	NS	NS	12/02/09	91	12/17/09	560	01/25/10	1300	02/12/10	1300	03/18/10	1300	04/22/10	1300	06/10/10	1400	09/15/10	1700
			Dichloroethane[1,2-]	NS	NS	12/02/09	ND	12/17/09	9.5	01/25/10	25	02/12/10	22	03/18/10	22	04/22/10	20	06/10/10	ND	09/15/10	ND
			Dichloroethene[1,1-]	NS	NS	12/02/09	ND	12/17/09	8.7	01/25/10	23	02/12/10	24	03/18/10	23	04/22/10	20	06/10/10	ND	09/15/10	ND
			Methylene Chloride	NS	NS	12/02/09	180	12/17/09	950	01/25/10	2200	02/12/10	1800	03/18/10	1700	04/22/10	1800	06/10/10	2000	09/15/10	2800
			Tetrachloroethene	NS	NS	12/02/09	ND	12/17/09	10	01/25/10	23	02/12/10	20	03/18/10	22	04/22/10	20	06/10/10	ND	09/15/10	ND
			Toluene	NS	NS	12/02/09	12	12/17/09	22	01/25/10	39	02/12/10	33	03/18/10	20	04/22/10	13	06/10/10	ND	09/15/10	ND

Table D-1.0-2 (continued)

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Analyte	Oct 2009		Nov–Dec 2009		Dec 2009		Jan 2010		Feb 2010		Mar 2010		Apr 2010		Jun 2010		Sep 2010	
				Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)	Collection Date	Result (µg/m³)
21-607955	459.4	464.8	Trichloroethane[1,1,2-]	NS	NS	12/02/09	ND	12/17/09	ND	01/25/10	11	02/12/10	9.5	03/18/10	ND	04/22/10	9.9	06/10/10	ND	09/15/10	ND
			Trichloroethene	NS	NS	12/02/09	57	12/17/09	390	01/25/10	910	02/12/10	900	03/18/10	990	04/22/10	920	06/10/10	770	09/15/10	1100
	559	565	Acetone	NS	NS	12/02/09	8.9	NS	NS	01/25/10	ND	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/15/10	ND
			Benzene	NS	NS	12/02/09	3.4	NS	NS	01/25/10	2.6	02/12/10	2.8	03/18/10	3.1	04/22/10	2.8	06/10/10	ND	09/15/10	ND
			Carbon Disulfide	NS	NS	12/02/09	4.5	NS	NS	01/25/10	3.1	02/12/10	3.1	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/15/10	ND
			Carbon Tetrachloride	NS	NS	12/02/09	100	NS	NS	01/25/10	110	02/12/10	180	03/18/10	180	04/22/10	170	06/10/10	160	09/15/10	190
			Chloroform	NS	NS	12/02/09	540	NS	NS	01/25/10	600	02/12/10	850	03/18/10	840	04/22/10	870	06/10/10	860	09/15/10	1100
			Dichloroethene[1,1-]	NS	NS	12/02/09	24	NS	NS	01/25/10	23	02/12/10	31	03/18/10	35	04/22/10	31	06/10/10	ND	09/15/10	41
			Hexane	NS	NS	12/02/09	5.2	NS	NS	01/25/10	ND	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/15/10	ND
			Methylene Chloride	NS	NS	12/02/09	710	NS	NS	01/25/10	800	02/12/10	820	03/18/10	840	04/22/10	800	06/10/10	880	09/15/10	1300
			Tetrachloroethene	NS	NS	12/02/09	ND	NS	NS	01/25/10	6.2	02/12/10	7.8	03/18/10	8.1	04/22/10	7.8	06/10/10	ND	09/15/10	ND
			Toluene	NS	NS	12/02/09	100	NS	NS	01/25/10	40	02/12/10	60	03/18/10	43	04/22/10	26	06/10/10	ND	09/15/10	ND
			Trichloroethene	NS	NS	12/02/09	320	NS	NS	01/25/10	430	02/12/10	560	03/18/10	590	04/22/10	600	06/10/10	470	09/15/10	700
	565	599	Acetone	NS	NS	NS	NS	12/17/09	11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	651.3	657.3	Acetone	NS	NS	12/02/09	ND	12/18/09	ND	01/26/10	ND	02/12/10	ND	03/18/10	ND	04/22/10	8.8	06/10/10	ND	09/15/10	ND
			Carbon Disulfide	NS	NS	12/02/09	6.1	12/18/09	3.4	01/26/10	ND	02/12/10	ND	03/18/10	ND	04/22/10	3	06/10/10	ND	09/15/10	ND
			Carbon Tetrachloride	NS	NS	12/02/09	ND	12/18/09	ND	01/26/10	10	02/12/10	24	03/18/10	33	04/22/10	35	06/10/10	ND	09/15/10	ND
			Chloroform	NS	NS	12/02/09	29	12/18/09	48	01/26/10	83	02/12/10	150	03/18/10	200	04/22/10	220	06/10/10	290	09/15/10	310
	651.3	657.3	Dichloroethene[1,1-]	NS	NS	12/02/09	3.8	12/18/09	6.5	01/26/10	13	02/12/10	21	03/18/10	31	04/22/10	31	06/10/10	42	09/15/10	45
			Hexane	NS	NS	12/02/09	3.9	12/18/09	ND	01/26/10	ND	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/15/10	ND
			Methylene Chloride	NS	NS	12/02/09	17	12/18/09	24	01/26/10	48	02/12/10	64	03/18/10	81	04/22/10	86	06/10/10	130	09/15/10	140
			Propylene	NS	NS	12/02/09	ND	12/18/09	8.3	01/26/10	ND	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/15/10	ND
			Toluene	NS	NS	12/02/09	100	12/18/09	39	01/26/10	17	02/12/10	24	03/18/10	20	04/22/10	14	06/10/10	ND	09/15/10	ND
			Trichloroethane[1,1,1-]	NS	NS	12/02/09	ND	12/18/09	ND	01/26/10	14	02/12/10	ND	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/15/10	ND
			Trichloroethene	NS	NS	12/02/09	18	12/18/09	29	01/26/10	57	02/12/10	100	03/18/10	160	04/22/10	160	06/10/10	180	09/15/10	230
	797.2	803.1	Acetone	NS	NS	12/03/09	17	12/17/09	14	01/26/10	ND	02/15/10	ND	03/19/10	20	04/23/10	ND	06/11/10	ND	09/15/10	ND
			Carbon Disulfide	NS	NS	12/03/09	3.3	12/17/09	ND	01/26/10	ND	02/15/10	ND	03/19/10	ND	04/23/10	ND	06/11/10	26	09/15/10	ND
			Chloroform	NS	NS	12/03/09	ND	12/17/09	ND	01/26/10	ND	02/15/10	ND	03/19/10	ND	04/23/10	8.7	06/11/10	ND	09/15/10	ND
			Propylene	NS	NS	12/03/09	8.6	12/17/09	ND	01/26/10	ND	02/15/10	ND	03/19/10	ND	04/23/10	ND	06/11/10	ND	09/15/10	ND
			Toluene	NS	NS	12/03/09	11	12/17/09	ND	01/26/10	ND	02/15/10	4.7	03/19/10	3.6	04/23/10	ND	06/11/10	3.8	09/15/10	ND
	946.2	952.1	Acetone	NS	NS	12/03/09	30000	12/17/09	1400	01/26/10	2500	02/15/10	620	03/19/10	99	04/23/10	15	06/11/10	ND	09/15/10	ND
			Hexane	NS	NS	12/03/09	ND	12/17/09	ND	01/26/10	ND	02/15/10	3.4	03/19/10	3	04/23/10	ND	06/11/10	ND	09/15/10	ND
			n-Heptane	NS	NS	12/03/09	ND	12/17/09	ND	01/26/10	ND	02/15/10	6.9	03/19/10	6.8	04/23/10	5.2	06/11/10	ND	09/15/10	ND
			Propylene	NS	NS	12/03/09	ND	12/17/09	ND	01/26/10	ND	02/15/10	ND	03/19/10	6.1	04/23/10	ND	06/11/10	ND	09/15/10	ND
			Toluene	NS	NS	12/03/09	690	12/17/09	ND	01/26/10	330	02/15/10	500	03/19/10	430	04/23/10	320	06/11/10	230	09/15/10	170

Note: Data qualifiers defined in Appendix A.

[a] ND = Not detected.

[b] NS = Not sampled.

Table D-1.0-3
Summary of Tritium Results at MDA T

Vapor Monitoring Well ID	Begin Depth (ft bgs)	End Depth (ft bgs)	Oct 2009		Nov–Dec 2009		Dec 2009		Jan 2010		Feb 2010		Mar 2010		Apr 2010		Jun 2010		Sept 2010	
			Collection Date	Result (pCi/L)	Collection Date	Result (pCi/L)	Collection Date	Result (pCi/L)	Collection Date	Result (pCi/L)	Collection Date	Result (pCi/L)	Collection Date	Result (pCi/L)	Collection Date	Result (pCi/L)	Collection Date	Result (pCi/L)	Collection Date	Result (pCi/L)
21-25262	80	85	10/19/09	ND[a]	11/17/09	ND	12/15/09	708	01/21/10	667	02/10/10	497	03/17/10	773	04/20/10	ND	06/08/10	795	09/08/10	589
	115	120	10/19/09	ND	11/17/09	ND	12/15/09	638	01/21/10	579	02/10/10	377	03/17/10	623	04/20/10	369	06/08/10	689	09/08/10	848
	232	237	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	6810	02/10/10	628	03/17/10	478	04/20/10	ND	06/08/10	851	09/08/10	703
	295	300	10/19/09	5710 (J)	11/17/09	3190	12/15/09	2910	01/21/10	3610	02/10/10	3070	03/17/10	3720	04/20/10	4530	06/08/10	7450	09/08/10	6780
	329.5	334.5	10/19/09	7320 (J)	11/17/09	4270	12/15/09	3350	01/21/10	4610	02/10/10	3740	03/17/10	4610	04/20/10	4100	06/08/10	4960	09/08/10	5190
	375	380	10/19/09	73300	11/17/09	32500	12/15/09	31300	01/21/10	50500	02/10/10	37300	03/17/10	55500	04/20/10	48800	06/08/10	70400	09/08/10	78400
	472	478	10/19/09	ND	11/17/09	ND	12/15/09	593	01/21/10	448	02/10/10	17800	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
	572	577	10/19/09	ND	11/17/09	ND	12/15/09	598	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	ND	06/08/10	ND	09/08/10	ND
	686	691	10/19/09	ND	11/17/09	ND	12/15/09	ND	01/21/10	ND	02/10/10	ND	03/17/10	ND	04/20/10	459	06/08/10	863	09/08/10	ND
21-25264	67.5	72.5	10/16/09	7390 (J)	11/19/09	6930	12/22/09	6830	01/28/10	7910	02/16/10	7100	03/23/10	8020	04/27/10	9900	06/14/10	12300	09/10/10	10400
	150.5	155.5	10/16/09	127000	11/19/09	129000	12/22/09	83700	01/28/10	110000	02/16/10	126000	03/23/10	112000	04/27/10	155000	06/14/10	191000	09/10/10	144000
	222.5	227.5	10/16/09	88600	11/19/09	87500	12/22/09	57300	01/28/10	81000	02/16/10	78000	03/23/10	94800	04/27/10	113000	06/14/10	137000	09/10/10	115000
	323	328	10/16/09	ND	11/19/09	2340	12/22/09	2320	01/28/10	1370	02/16/10	1970	03/23/10	1970	04/27/10	1910	06/14/10	2390	09/10/10	2360
	349.5	354.5	10/16/09	2090 (J)	11/19/09	2620	12/22/09	1740	01/28/10	1930	02/16/10	1550	03/23/10	2110	04/27/10	2300	06/14/10	3250	09/10/10	3110
21-603058	67.5	72.5	10/14/09	ND	11/20/09	1390	12/21/09	483	01/27/10	ND	02/17/10	ND	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND
	217	222	10/14/09	ND	11/20/09	1380	12/21/09	1100	01/27/10	822	02/17/10	4700	03/22/10	1040	04/26/10	808	06/15/10	580	09/16/10	ND
	242.5	247.5	10/14/09	ND	11/20/09	117000	12/21/09	1590	01/27/10	1890	02/17/10	5630	03/22/10	432	04/26/10	2470	06/15/10	2400	09/16/10	2850 (J)
	339.5	344.5	10/14/09	ND	11/20/09	368	12/21/09	ND	01/27/10	ND	02/17/10	574	03/22/10	ND	04/26/10	ND	06/15/10	ND	09/16/10	ND
21-603059	77.5	82.5	10/20/09	ND	11/18/09	570	12/16/09	413	01/20/10	ND	02/10/10	260	03/16/10	ND	04/21/10	ND	06/09/10	ND	09/09/10	ND
	187.5	192.5	10/20/09	ND	11/18/09	835	12/16/09	905	01/20/10	ND	02/10/10	518	03/16/10	1100	04/21/10	ND	06/09/10	340	09/09/10	ND
	229.5	234.5	10/20/09	ND	11/18/09	2010	12/16/09	23800	01/20/10	904	02/10/10	1500	03/16/10	884	04/21/10	741	06/09/10	1170	09/09/10	ND
	292.5	297.5	10/20/09	2720 (J)	11/18/09	3810	12/16/09	2450	01/20/10	4560	02/10/10	4070	03/16/10	3610	04/21/10	1930	06/09/10	5520	09/09/10	8150
	372.5	377.5	10/20/09	4810 (J)	11/18/09	5400	12/16/09	6360	01/20/10	6150	02/10/10	4870	03/16/10	4010	04/21/10	5140	06/09/10	5500	09/09/10	4620
21-607955	71.1	76.4	NS[b]	NS	12/02/09	1010	12/18/09	1700	01/25/10	2790	02/12/10	1620	03/18/10	2640	04/22/10	3160	06/10/10	4710	09/13/10	5180
	153.8	159.7	NS	NS	12/03/09	3020	12/18/09	20600	01/25/10	26400	02/12/10	21100	03/18/10	31000	04/22/10	29300	06/10/10	42000	09/13/10	47000
	173.4	179	NS	NS	12/02/09	1350	12/18/09	1280	01/25/10	952	02/12/10	1480	03/18/10	1250	04/22/10	1070	06/10/10	1540	09/13/10	1530
	225.9	232.1	NS	NS	12/02/09	4580	12/17/09	5370	01/25/10	3650	02/12/10	7710	03/18/10	6980	04/22/10	7590	06/10/10	10800	09/13/10	11600
	326.6	333.4	NS	NS	12/03/09	1200	12/17/09	551	01/25/10	25000	02/12/10	483	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/13/10	751
	353.3	359.6	NS	NS	12/02/09	695	12/17/09	ND	01/25/10	444	02/12/10	1210	03/18/10	1070	04/22/10	ND	06/10/10	328	09/13/10	ND
	459.4	464.8	NS	NS	12/02/09	425	12/17/09	ND	01/25/10	681	02/12/10	383	03/18/10	ND	04/22/10	654	06/10/10	309	09/15/10	ND
21-607955	559	565	NS	NS	12/02/09	1140	NS	NS	01/25/10	ND	02/12/10	652	03/18/10	ND	04/22/10	ND	06/10/10	ND	09/15/10	ND
	565	599	NS	NS	NS	NS	12/17/09	627	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	651.3	657.3	NS	NS	12/02/09	ND	12/18/09	504	01/26/10	662	02/12/10	ND	03/18/10	889	04/22/10	ND	06/10/10	ND	09/15/10	ND
	797.2	803.1	NS	NS	12/03/09	ND	12/17/09	ND	01/26/10	853	02/15/10	ND	03/19/10	ND	04/23/10	ND	06/11/10	ND	09/15/10	ND
	946.2	952.1	NS	NS	12/03/09	845	12/17/09	ND	01/26/10	445	02/15/10	346	03/19/10	712	04/23/10	545	06/11/10	ND	09/15/10	2490 (J)

Note: Data qualifiers defined in Appendix A.

[a] ND = Not detected.

[b] NS = Not sampled.

Attachment D-1

Analytical Suites and Results and Analytical Reports
(on CD included with this report