



DEPARTMENT OF ENERGY
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May 25, 2023

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Subject: Submittal of the Final Investigation Work Plan for Material Disposal Area A at
Technical Area 21

Dear Mr. Shean:

Enclosed please find two hard copies with electronic files of the "Final Investigation Work Plan for Material Disposal Area A at Technical Area 21." This final investigation work plan describes the operational history of the site, the conceptual site model, the previous investigations performed, and the proposed work activities to complete the investigation of Material Disposal Area A (MDA A).

The report is being submitted to fulfill fiscal year 2023 Milestone 6 in Appendix B of the 2016 Compliance Order on Consent. The objective of the final work plan is to further evaluate temporal trends of volatile organic compounds and tritium in pore gas beneath MDA A, providing necessary information for the refinement of the conceptual site model before proceeding with the corrective measures evaluation.

If you have any questions, please contact Kevin Reid at (505) 257-7710 (kevin.reid@em-la.doe.gov) or Cheryl Rodriguez at (505) 414-0450 (cheryl.rodriguez@em.doe.gov).

Sincerely,

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Final Investigation Work Plan for Material Disposal Area A at Technical Area 21
(EM2023-0245)

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May 2023
EM2023-0245


Final Investigation Work Plan for Material Disposal Area A at Technical Area 21

Newport News Nuclear BWXT-Los Alamos, LLC (N3B), under the U.S. Department of Energy Office of Environmental Management Contract No. 89303318CEM000007 (the Los Alamos Legacy Cleanup Contract), has prepared this document pursuant to the Compliance Order on Consent, signed June 24, 2016. The Compliance Order on Consent contains requirements for the investigation and cleanup, including corrective action, of contamination at Los Alamos National Laboratory. The U.S. government has rights to use, reproduce, and distribute this document. The public may copy and use this document without charge, provided that this notice and any statement of authorship are reproduced on all copies.


Final Investigation Work Plan for Material Disposal Area A at Technical Area 21

May 2023


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Executive Summary

This final investigation work plan (IWP) identifies and describes the work activities to complete the investigation of Material Disposal Area (MDA) A. The final IWP presents the proposed activities needed to further evaluate temporal trends of volatile organic compounds (VOCs) and tritium in pore gas beneath MDA A, providing necessary information for the refinement of the conceptual site model before proceeding with the corrective measures evaluation (CME).

MDA A, Solid Waste Management Unit 21-014, is an inactive subsurface disposal area located within Technical Area 21 (TA-21) at Los Alamos National Laboratory. The site was used intermittently from 1945 to 1949, and from 1969 to 1977, to dispose of radioactively contaminated solid and liquid wastes, debris from decontamination and decommissioning activities, and radioactive liquids generated at TA-21.

A review of historical documents and data was performed to evaluate remaining characterization activities to be conducted at MDA A before initiating the CME process in accordance with the 2016 Compliance Order on Consent. The review also evaluated all existing data to identify any additional information needed to achieve regulatory closure of the site. Results from this review recommend additional pore-gas data collection to assess the current concentrations of VOCs and tritium in pore gas and compare those concentrations to historical data.

The results of the additional pore-gas monitoring activities will be reported in a supplemental investigation report.

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Appendix A	Acronyms and Abbreviations, and Data Qualifier Definitions
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1.0 INTRODUCTION

Los Alamos National Laboratory (LANL or the Laboratory) is a multidisciplinary research facility owned by the U.S. Department of Energy (DOE) and managed by Triad National Security, LLC. The Laboratory is located in north-central New Mexico approximately 60 mi northeast of Albuquerque and 20 mi northwest of Santa Fe. The Laboratory site covers 36 mi² of the Pajarito Plateau, which consists of a series of fingerlike mesas separated by deep canyons containing perennial and intermittent streams running from west to east. Mesa tops range in elevation from approximately 6200 to 7800 ft above mean sea level.

The Laboratory has been a participant in a national effort by DOE to clean up sites and facilities formerly involved in weapons research and development. The goal of this effort is to ensure that past operations do not threaten human or environmental health and safety in and around Los Alamos County, New Mexico. To achieve this goal, the Laboratory has investigated sites potentially contaminated by past Laboratory operations. These sites are designated as either solid waste management units (SWMUs) or areas of concern (AOCs).

Corrective actions at the Laboratory are subject to a Compliance Order on Consent (Consent Order). The Consent Order was issued pursuant to the New Mexico Hazardous Waste Act (NMHWA), New Mexico Statutes Annotated 1978 section 74-4-10, and the New Mexico Solid Waste Act 1978, section 74 9 36(D). The New Mexico Environment Department (NMED), pursuant to the NMHWA, regulates cleanup of hazardous wastes and hazardous constituents. DOE regulates cleanup of radioactive contamination, pursuant to DOE Order 458.1, Administrative Change 4, "Radiation Protection of the Public and the Environment," and DOE Order 435.1, "Radioactive Waste Management." Information on radioactive materials and radionuclides, including the results of sampling and analysis of radioactive constituents, is voluntarily provided to NMED in accordance with DOE policy.

This final investigation work plan (IWP) addresses work activities at Material Disposal Area (MDA) A, SWMU 21-014, at the Laboratory. The location of MDA A with respect to the Laboratory technical areas is shown in Figure 1.0-1. This site is potentially contaminated with hazardous chemicals and radionuclides.

1.1 General Site Information

MDA A, SWMU 21-014, is an inactive subsurface disposal area located 0.25 mile east of the intersection of Delta Prime (DP) Road and the north perimeter road of Technical Area 21 (TA-21) at the Laboratory. MDA A is a fenced 1.25-acre site that was used intermittently from 1945 to 1949, and from 1969 to 1977, to dispose of radioactively-contaminated solid and liquid wastes, debris from decontamination and decommissioning (D&D) activities, and radioactive liquids generated at TA-21, specifically from DP West and DP East. The operations at DP West included plutonium processing, while the operations at DP East included the production of weapons initiators.

The MDA consists of two underground waste storage tanks (known as the General's Tanks), two rectangular disposal pits at the east end of the site, and a large central pit. There are two vertical shafts present at MDA A that were never used for waste disposal and were backfilled with soil. The area between the two eastern trenches was used for a brief period as a drum storage area. The location of the waste disposal sites within MDA A, and the relative locations of the disposal units with respect to the MDA A fence line, topography, and other SWMUs/AOCs, are shown in Figures 1.1-1 and 1.1-2, respectively.

Based on an evaluation of the administrative record and previously approved investigations at MDA A, the following conclusions have been made:

- Previous investigations have characterized potential releases from the MDA A disposal pits and trenches to the surface and subsurface.
- The nature and extent of potential releases have been defined, and there is no potential for unacceptable risk to human health or the environment under current (i.e. industrial) site use.
- Previous investigations have characterized the contents of the General's Tanks to evaluate a remediation strategy.
- Requirements contained in the administrative record for MDA A have been met, except for additional evaluation of volatile organic compounds (VOCs) and tritium in subsurface pore-gas to support a corrective measures evaluation (CME).

1.2 Work Plan Overview

This final IWP presents the proposed activities needed to complete the investigation of MDA A.

- Section 2 presents the background, operational history, conceptual site model, and data overview of MDA A.
- Section 3 presents site conditions.
- Section 4 summarizes previous investigations and data collected, and presents the scope of proposed activities for MDA A.
- Section 5 describes investigation methods for proposed field activities.
- Section 6 presents ongoing monitoring and sampling programs in the vicinity of MDA A.
- Section 7 is an overview of the anticipated schedule of the investigation activities.
- Section 8 provides the references cited in the document.
- Appendix A includes a list of acronyms and abbreviations, and a data qualifier definitions table.

1.3 Work Plan Objectives

The objective of this final IWP is to propose further characterization of VOCs and tritium in subsurface pore-gas at MDA A, to provide necessary data to refine the conceptual site model before proceeding with the CME process. The data will be evaluated and reported in an investigation report (IR).

To accomplish this objective, the IWP

- presents historical and background information on MDA A;
- summarizes existing data and information on the nature and extent of contamination and risk;
- describes the rationale for proposed data collection activities; and
- identifies and proposes appropriate methods and protocols for collecting, analyzing, and evaluating data.

2.0 BACKGROUND

2.1 Operational History

The following subsections provide a summary of the site description and operational history for MDA A, SWMU 21-014.

2.1.1 General's Tanks

The east and west General's Tanks were used for the storage of low-level retrievable waste streams derived from plutonium reprocessing and recovery operations carried out at LANL from 1945 to 1947. The west tank received solutions that had been treated with hydrogen peroxide and sodium hydroxide, resulting in solutions that contained little or no calcium and magnesium. The east tank received solutions treated with ammonium nitrate and ammonium hydroxide to precipitate aluminum hydroxide as a plutonium carrier. These residual solutions contained approximately 1 mg/L of plutonium.

The tanks were sealed and buried in place. In 1974, the tanks were partially excavated; the soil and concrete were removed from the top of the tanks, and holes about 16 in. in diameter were cut in the top of each tank. It was determined that an estimated 40,000 gallons of liquid and solid material were held in the west tank from the sodium hydroxide process, and 9000 gallons were held in the east tank from the ammonium hydroxide process (Rogers 1977, 005707). The wastes in the tanks had separated and solid sludge material had collected in the bottoms of the tanks. The sludge was overlain by a layer of supernatant water that comprised the bulk of the material in the tanks. Liquid waste was removed from the tanks in 1975 and 1983, and processed at the former radioactive liquid waste treatment facility in building 21-257 [SWMU 21-011(a)].

The holes in the tanks remained open for four or five years, and the water in the west tank was pumped periodically as rainwater collected in the tank. In 1985 the tanks were sealed and buried to prevent further rainwater infiltration. In 2010, the tanks were re-excavated and re-opened to obtain samples for characterization. At that time, the estimated volumes of sludge and water were 2728 gallons in the east tank, and 2729 gallons in the west tank (LANL 2011, 208873).

2.1.2 Eastern Disposal Pits

In 1945, the eastern pits were excavated to receive radioactive solid waste from DP East. The two rectangular pits are approximately 18.0 ft wide × 125 ft long × 12.5 ft deep. Waste in the eastern trenches consists of contaminated waste from the chemistry and metallurgy research operations, including laboratory equipment, building construction material, paper, rubber gloves, filters from air cleaning systems, and contaminated or toxic chemicals. The estimated quantity of waste in the pits is 4000 yd³. Polonium and plutonium-239/240 were thought to be the major radiological contaminants in the waste, although polonium would no longer be present at the site because of its short half-life (138.4 days). Waste disposal reportedly ceased in 1946 when there was no remaining capacity. Crushed tuff, stockpiled on site from pit excavation, was used to backfill and cover the pits (LANL 2005, 088052.5).

2.1.3 Former Drum Storage Area

In the late 1940s and early 1950s, several hundred 55-gal. drums containing sodium hydroxide and stable iodine solution were stored on the surface of the east end of MDA A, near the two eastern trenches. The solutions contained within the drums were used to scrub ventilation exhaust air containing plutonium and possibly uranium. Corrosion of the drums resulted in releases to surface soil over the eastern trenches

and to adjacent areas at the eastern edge of MDA A. The drums were removed in 1960, and the storage area was paved to immobilize contaminants that had been released to the surface soils (LANL 2005, 088052.5).

2.1.4 Central Disposal Pit

In 1969, a large pit (the central pit) was excavated in the center of MDA A to receive and store building debris from demolition/rehabilitation work conducted at TA-21. The building debris was contaminated with plutonium, uranium, depleted uranium decay products, and other radioactive isotopes associated with those elements from TA-21 D&D activities. The pit initially measured 150 ft long x 40 ft wide x 22 ft deep, but was later enlarged to measure 172 ft long x 134 ft wide in 1972. There was no indication of a change in the depth of the pit. After completion of demolition work in 1974, and rehabilitation work by 1976, the pit was 75% full. The pit may have continued to receive unspecified waste until 1977. The pit was backfilled and decommissioned in May 1978 when a soil cover was placed over it. In 1985, cover stabilization activities, involving removal of surface contamination and placement of additional cover material, were implemented at the site, followed by recontouring and reseeding (LANL 2005, 088052.5).

2.1.5 Vertical Shafts

In 1975, two 4-ft-diameter vertical shafts were excavated south of the General's Tanks to a depth of approximately 65 ft below ground surface (bgs). The shafts were to be used to clarify rinse water that would be generated by cleaning radioactive cement paste from the transfer hose between the former pug mill in building 21-257 and the General's Tanks. The tanks were never filled with cement paste, so the vertical shafts were never used. The shafts were backfilled with soil in 1977 (LANL 2005, 088052.5).

2.2 Conceptual Site Model

The sampling proposed in this final IWP, in part, uses the conceptual site model (CSM) for MDA A (LANL 2006, 095046), to predict areas of potential contamination and to allow adequate characterization of these areas. The CSM is based on the existing knowledge about the site and describes potential contaminant sources, exposure pathways, transport mechanisms, and receptors. The current CSM for MDA A includes both surface and subsurface sources of potential contamination.

2.2.1 Potential Contaminant Sources

Potential contaminant sources at MDA A include the General's Tanks, the central pit, the two eastern pits, and the former drum storage area. The shafts were never used for waste disposal, and are not considered as a potential contamination source. Details of the disposal areas and known contaminant inventory within MDA A are provided in section 2.1. Investigation results indicate the presence of radionuclides, inorganic chemicals, and/or organic chemicals in surface and subsurface samples.

2.2.2 Potential Contaminant Transport Mechanisms

Potential transport mechanisms that may lead to exposure at MDA A include

- disturbance of contaminants in shallow soil and subsurface tuff by field operations,
- dissolution and/or particulate transport of surface contaminants during precipitation and runoff events,
- airborne transport of contaminated surface soil,

- transport of contaminants by subsurface diffusion of vapors, and
- disturbance and uptake of contaminants in shallow soil by plants and animals.

2.2.3 Potential Receptors

Potential receptors at MDA A may include

- Laboratory workers,
- construction workers, and
- plants and animals both on-site and in areas immediately surrounding the sites.

Laboratory and construction workers could potentially be exposed to contaminants in soil, tuff, and sediment by direct contact, ingestion, or inhalation. Ecological receptors may also be exposed to contaminants in soil and sediment.

2.2.4 Cleanup Levels

As specified in the Consent Order, soil screening levels (SSLs) for inorganic and organic chemicals may be used as soil cleanup levels unless they are determined to be impracticable or unless values do not exist for the current and reasonably foreseeable future land uses. Screening action levels (SALs) may be used as soil cleanup levels for radionuclides (LANL 2015, 600929). Screening assessments compare chemical of potential concern (COPC) concentrations for each site with industrial, residential, and construction worker SSLs and SALs.

The human-health cleanup goals specified in section IX of the Consent Order are a target risk of 1×10^{-5} for carcinogens or a hazard index of 1 for noncarcinogens. For radionuclides, the release requirements in DOE Order 458.1 (25 mrem/yr) will be met.

As specified in the Consent Order, ecological cleanup levels may be developed using a methodology and values approved by NMED. LANL created a methodology for developing ecological preliminary remediation goals (EcoPRGs) (LANL 2018, 602891) that was reviewed and approved by NMED (NMED 2018, 602908). The EcoPRGs may be used as cleanup levels for mitigating unacceptable ecological risk.

2.3 Data Overview

This final IWP summarizes the available decision-level data, and presents the conclusions of the approved 2006 IR for MDA A (LANL 2006, 095046) and the approved supplemental investigation status report for MDA A (LANL 2007, 100482), regarding the nature and extent of contamination at each site. This work plan proposes sampling and analyses for areas where additional data is needed to assess temporal trends in subsurface pore-gas. The data collected during this investigation, along with existing decision-level data, will be used to resolve the temporal variability of VOCs and tritium in pore-gas, and provide information necessary to proceed with the CME. Investigation activities for the General's Tanks are not included in this final IWP, due to the radionuclides present being under the jurisdiction of DOE. They will be addressed in a separate report.

Analytical samples described in this work plan have undergone analyses at off-site laboratories. Because analytical practices and documentation of analyses vary in quality and completeness, analytical data presented are of either screening-level or decision-level data.

- Screening-level data are appropriate for applications that only require determination of gross contamination areas and/or for site characterization. Screening-level data are also used to specify areas where decision-level samples should be collected.
- Decision-level data are used to quantify the nature and extent of releases and to perform risk assessments. The decision-level data presented in this work plan (Tables 4.1-1 through 4.1-8) have been validated for such use and provide supporting information for the investigation activities proposed in the work plan.

3.0 SITE CONDITIONS

Surface and subsurface features and geologic characteristics of MDA A are described in detail in the approved MDA A IR (LANL 2006, 095046). Conditions at the sites addressed in this final IWP are predominantly influenced by

- a semiarid climate with low precipitation and a high evapotranspiration rate that limits the extent of subsurface moisture percolation and, therefore, the amount of moisture available to transport radionuclides or hazardous waste constituents in the subsurface;
- an unlikely vertical migration of contaminants through the vadose zone, due to the depth to groundwater at the site being 1265 ft bgs.

These and other elements of the environmental setting in MDA A are considered when the investigation data are evaluated with respect to the fate and transport of contaminants.

4.0 SUMMARY OF PREVIOUS RESULTS AND PROPOSED INVESTIGATION ACTIVITIES

4.1 Summary of Previous Investigations

Historical investigations at MDA A include geophysical surveys performed to delineate and confirm subsurface features at MDA A (including pits and tanks) and to identify natural features such as paleochannels. Previous investigations were grouped into the following temporal categories: Those performed prior to 1992, before the RCRA [Resource Conservation and Recovery Act] facility investigation (RFI); the RFI, which occurred from 1992 to 1994; and Consent Order investigations occurring from 2005 to present.

4.1.1 Geophysical Surveys

Geophysical surveys were conducted at MDA A in 1989, 1996, 1999, and 2003 to determine the geometry of each of the disposal units and the General's Tanks. Additional features, including paleochannels and miscellaneous buried debris, were also identified. Each of these surveys used a combination of geophysical methods to locate subsurface structures and anomalies, including a time-domain electromagnetic system, seismic refraction, ground-penetrating radar, resistivity, and induced polarization.

4.1.2 Pre-RFI Investigations

Pre-RFI surface soil investigations were performed in 1980, 1984, and 1990. Samples were analyzed for radiological constituents only. The surface soil data collected from the 1990 investigation are qualitative only because a sampling location map is unavailable. The information collected during these

three investigations determined that concentrations of plutonium-238, plutonium-239/240, americium-241, uranium, and tritium were above established background values (BVs) and fallout values in most sampling locations in the area surrounding MDA A (LANL 2005, 088052.5).

Pre-RFI subsurface investigations were conducted in 1969, 1974, and 1983; all investigations took place within the fenced perimeter. The 1969 investigation was an evaluation of fracture and joint patterns conducted during the excavation of the central disposal pit. The 1974 and 1983 investigations included the installation of 10 vertical boreholes (four in 1974 and six in 1983) with auger holes near the General's Tanks to determine if the tanks had leaked. These 10 boreholes were sampled to depths of 30 ft (1983) and 35 ft (1974) into the tuff, approximately 20 ft below the base of the General's Tanks. The samples collected in 1974 were analyzed for gross alpha/beta radiation; the 1983 samples were submitted for plutonium-238 and plutonium-239/240 analyses. The results from these two sampling events indicated the tanks had not leaked as of 1983; the only detections noted were plutonium-239/240 in the shallower (0–3 ft) intervals (LANL 2005, 088052.5).

4.1.3 RFIs

RFI surface soil investigations were performed in 1992 (LANL 1994, 026073) and 1994 (LANL 1997, 062292) in the areas outside the MDA A fence line, both immediately surrounding and downslope from the facility to the north. Surface and shallow-subsurface soil samples were collected at depths up to 1.5 ft bgs. Samples were analyzed for radionuclides, metals, VOCs, and semivolatile organic compounds (SVOCs). As with previous investigations, americium-241, plutonium-238, plutonium-239/240, uranium, and tritium were detected in most samples above BVs. Several metals, including arsenic, cadmium, lead, and mercury, were detected above BVs. Organic compounds were detected in a small number of these samples.

4.1.4 Initial Consent Order Investigation

A Consent Order investigation of MDA A (LANL 2006, 095046) was conducted between 2005 and 2006 to determine the horizontal and vertical extent of contamination. Surface and shallow subsurface sampling was performed on the DP Canyon slope and within the MDA A disposal area. Surface (0.0–0.5 ft bgs) and shallow subsurface (1.5–2.0 ft bgs) samples were collected from 16 locations on the DP Canyon slope north of MDA A, and were submitted for laboratory analysis of target analyte list (TAL) metals, total uranium, nitrate, iodide, perchlorate, total cyanide, SVOCs, gamma-emitting radionuclides, americium-241, plutonium isotopes, uranium isotopes, and strontium-90. Sampling locations are shown in Figure 4.1-1.

Two geodetic land surveys were conducted in July and September 2006. The July survey was performed to identify the location of each disposal unit, the General's Tanks, vertical shafts, and proposed borehole/soil sampling locations. The September survey was conducted at the conclusion of field activities, to establish spatial coordinates for all surface and borehole sampling locations.

Sixteen boreholes were drilled to characterize potential contaminant releases from the General's Tanks, eastern pits and drum storage area, central pit, and unused vertical shafts. The boreholes included three angled boreholes extending beneath the General's Tanks, six shallow (35 ft) boreholes around the eastern pits, three shallow (45 ft) boreholes around the central pit, one deep (85 ft) borehole near the vertical shafts, one deep (360 ft) borehole adjacent to the central and eastern pits extending beneath the Cerro Toledo formation, and two shallow (45 ft and 50 ft) boreholes at expected locations of the paleochannel.

Continuous core was collected from each borehole to determine stratigraphy and characterize fractures and screened for VOCs, polychlorinated biphenyls (PCBs), and radioactivity. Subsurface samples were collected from each core at the location of the highest field screening results, the maximum depth of field screening detections, the base depth of disposal units, and total depth. Additional samples were collected from fracture fill, moist zones, and high permeability intervals, as appropriate. One deep sample (337–339 ft bgs) was collected to determine saturated hydraulic conductivity, total porosity, volumetric and gravimetric moisture content, and density. Samples sent for laboratory analysis were analyzed for TAL metals, total uranium, nitrate, iodide, perchlorate, total cyanide, SVOCs, VOCs, PCBs, dioxins/furans, gamma-emitting radionuclides, americium-241, plutonium isotopes, uranium isotopes, and strontium-90.

After drilling and core sampling was completed, pore-gas samples were collected from each core interval sampled. Pore-gas samples were submitted for analysis of VOCs and tritium. Geophysical logging and fracture characterization were performed at each borehole using a gamma neutron probe and a downhole camera survey was performed on the two deepest vertical boreholes. Pore-gas sampling locations are shown in Figure 4.1-2.

A surface geophysical survey was performed using terrain conductivity and ground-penetrating radar to delineate the boundaries of the disposal units and General's Tanks.

A surface radiological survey for high-energy and low-energy gamma radiation was performed on the slope leading to DP Canyon.

4.1.4.1 Results

DP Canyon Slope

Inorganic COPCs lead, thallium, and manganese were detected at levels greater than residential SSLs. One organic COPC for the DP Canyon slope [benzo(b)fluoranthene] was detected at greater than 10% of the residential SSL. Radionuclide COPCs for the DP Canyon slope were americium-241, plutonium-238, plutonium-239, and strontium-90. The maximum activities of plutonium-239 and strontium-90 were greater than 10% of the residential SALs.

Human-health risk for DP Canyon slope was evaluated under the recreational and residential scenarios. There was no potential unacceptable risk or dose under either scenario.

Mesa Top

Six inorganic COPCs (aluminum, arsenic, chromium, cobalt, cyanide, and iron) were detected at greater than 10% of the residential SSLs in soil and tuff for the mesa top (central disposal pit, eastern disposal pits, General's Tanks, and vertical shafts). Maximum concentrations of three organic COPCs [benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene] were greater than 10% of residential SSLs. One dioxin congener (1,2,3,7,8-pentachlorodibenzodioxin) was detected with a toxicity equivalent concentration greater than 10% of the residential SSL for 2,3,7,8-tetrachlorodibenzodioxin. Radionuclide COPCs for the mesa top were americium-241, cesium-137, plutonium-238, plutonium-239, strontium-90, and uranium-235. The maximum activity of plutonium-239 was greater than 10% of the residential SAL.

Human-health risk for the mesa top was evaluated under the industrial, construction worker, and residential scenarios. There was no potential unacceptable risk or dose under these scenarios.

Analytical results for soil samples taken at DP Canyon slope and MDA A (mesa top) are presented in Tables 4.1-1, 4.1-2, 4.1-3, and 4.1-4.

Pore Gas

Thirty-nine VOCs were detected in pore-gas samples. The maximum concentrations of each VOC were less than the Tier I screening levels based on protection of groundwater.

Tritium was detected in 72 of 75 pore-gas samples, with a maximum activity of 2,305,490 pCi/L measured at one of the six shallow boreholes (location 21-26593). [The investigation report (LANL 2006, 095046) noted a maximum activity of 1,092,486 pCi/L at this location. However, a systematic negative bias was later identified in the process used to calculate reported tritium results from laboratory data (Marczak 2009, 106500). These results were corrected and updated in the Environmental Information Management (EIM) system with the corrected maximum value being 2,305,490 pCi/L]. The sample depth was from 34 ft to 35 ft and was the deepest interval at that location. The next highest activity measured was 122,160 pCi/L collected from location 21-26596 at 17-20 ft bgs (Figure 4.1-2). The investigation results were documented in the IR for MDA A (LANL 2006, 095046).

Analytical results for pore-gas samples taken at MDA A are presented in Table 4.1-5.

Geophysical Survey

Geophysical survey results indicated that some variation exists between the interpreted target locations and the historical information. Field verification of the corners of the General's Tanks concrete slab were completed in accordance with MDA A drilling surveillance procedure before finalizing the angled borehole drill locations. The locations of the eastern disposal pits were shifted slightly to the east from locations historically portrayed in design drawings and maps.

Geotechnical Properties

One geotechnical sample was collected at MDA A location 21-26588, at a depth of 337.5 to 339 ft bgs, to assess subsurface flow properties. Bulk density, conductivity, saturated hydraulic conductivity, moisture content, and porosity measured at MDA A were comparable to values for these parameters measured at MDA T and MDA U. MDA A location 21-26588 (Figure 4.1-1) subsurface geotechnical results do not indicate saturated (water-bearing) conditions or zones beneath MDA A.

Fractures

Fracture density was not continuous across MDA A, and fractures were observed in 10 of 16 borehole locations [(21-26589, 21-26597, 21-26485, 21-26481, 21-26592, 21-26593, 21-26588, 21-26482, 21-26598, and 21-26590); Figure 4.1-1]. Welding tends to vary spatially, both between units and within separate depositional layers. Welded tuffs tend to be more fractured than nonwelded tuffs. The degree of welding tends to increase with depth but was not closely associated with an increase in fracture density. The fractures generally were filled with brown clay, which tends to inhibit the movement of dissolved contaminants. Based on past modeling studies, when fractures become discontinuous at stratigraphic subunit contacts, fracture moisture is absorbed into the tuff matrix (Soll and Birdsell 1998, 070011).

Fractures tended to be vertical and approximately 1 in. wide or less, limiting material available for analysis. One exception to this was a fracture observed at 43.5 ft bgs at location 21-26485, where a sample of the matrix and fracture-fill material was collected and submitted for analyses. The sampling results did not indicate concentrations different from non-fracture sample material.

Paleochannel

Two possible paleochannels north and east of MDA A had been reported in previous surface geophysical studies across TA-21 (Johnson 1999, 087457; Martin 1999, 087458; Quesada 1999, 087456; AGS 2003, 081176). Drilling at locations 21-26482 and 21-26484 (Figure 4.1-1) was designed to intercept these possible paleochannels. Subsurface conditions in location 21-26484 indicated the presence of a paleochannel from the surface to approximately 23 ft bgs. Bandelier tuff (Qbt 3) was noted from 23 ft bgs to total depth (TD) (45 ft bgs) in the borehole. The material was silty to clayey medium-grained sand, becoming coarser with depth. A conglomerate basal zone was noted from 20 to 22 ft bgs. No paleochannel material was noted in location 21-26482. Tuff (Qbt 3) was noted at 1.5 ft bgs and was consistent throughout the borehole.

4.1.4.2 Conclusions and Recommendations

The 2006 IR included the following conclusions:

- Lateral and vertical extent of COPCs on the DP Canyon slope were defined.
- Lateral and vertical extent of COPCs in surface and shallow subsurface samples from the MDA A cover soils were defined.
- Lateral and vertical extent of COPCs in subsurface samples from the MDA A disposal area were defined.
- Lateral and vertical extent of VOCs in subsurface pore gas were defined, but an anomalously high tritium result was detected at one location.
- Geotechnical properties (conductivity, saturated hydraulic conductivity, moisture content, and porosity) measured in a sample from MDA A were comparable to those measured in samples from MDAs T and U.
- Fractures were generally filled with brown clay and distinct contaminant trends in fill and associated tuff were not noted.
- A paleochannel from the surface to a depth of approximately 23 ft, and containing silty to clayey medium-grained sand, was present at one of two locations investigated.
- The mesa-top portion of the site did not pose an unacceptable risk to industrial workers, and the DP Canyon slope did not pose an unacceptable risk to recreational users.
- The site did not pose an unacceptable risk to ecological receptors.
- The data collected during the investigation, along with historical data, are sufficient to proceed with the CME.

Based on these conclusions, the IR recommended no further characterization of the site.

4.1.5 Supplemental Investigation

In 2007, a supplemental sampling of MDA A (LANL 2007, 100482) was conducted, as a follow-up to the 2006 MDA A IR, to address NMED's concerns regarding the high activity of tritium detected at location 21-26593. Borehole 21-26593 was extended to 115 ft bgs and samples were collected at depth intervals of 15–16 ft bgs, 34–35 ft bgs, 54–55 ft bgs, 74–75 ft bgs, 94–95 ft bgs, and 114–115 ft bgs. Five other boreholes (21-26481, 21-26484, 21-26485, 21-26588, and 21-26596) were resampled. Sampling locations are shown in Figure 4.1-2.

VOC sampling results were similar to the 2006 investigation sampling, and no VOCs were detected above Tier I screening levels. Tritium sampling results were substantially lower, and all results were below the 20,000 pCi/L Tier I screening level, with a maximum detected activity of 1073.84 pCi/L at borehole location 21-26596. Of the six samples collected from location 21-26593, three were below detection limits, and the other three results ranged from 278 pCi/L to 359 pCi/L. VOC data from the MDA A supplemental sampling are presented in Table 4.1-6, and VOC pore-gas screening results are presented in Table 4.1-7. None of the VOC results exceeded screening values for protection of groundwater. Table 4.1-8 presents tritium data from the supplemental sampling.

The results of the 2007 supplemental investigation were documented in a supplemental investigation status report submitted to NMED in December 2007 (LANL 2007, 100482). The status report concluded the nature and extent of VOCs and tritium in pore gas were defined, and recommended that long-term pore-gas monitoring not be performed.

The supplemental investigation status report was approved with modifications by NMED on January 23, 2008 (NMED 2008, 100117). Because of the variability in pore-gas results from 2006 and 2007, NMED required continued quarterly monitoring of the six boreholes sampled during the supplemental investigation. Five of those six boreholes had been abandoned during the supplemental investigation, so NMED later revised this requirement to include only continued quarterly monitoring of pore gas from the borehole at location 21-26593 (NMED 2008, 100962). Otherwise, the approval with modifications indicated that characterization of MDA A was complete and LANL should prepare a CME.

The required monitoring was not implemented by LANL. A CME report for MDA A, which proposed installation of a vapor-monitoring well at location 21-26593, was developed and submitted to NMED in 2008 (LANL 2008, 103425). NMED issued a notice of disapproval for the CME report in 2009 (NMED 2009, 104982).

4.1.6 Phase II Consent Order Investigation

Rather than re-submit a revised CME, LANL submitted a request in April 2009 to withdraw the CME and prepare a Phase II Investigation/Remediation work plan (LANL 2009, 105651). The request also included a request to delay installing a vapor monitoring well at location 21-26593. This request was approved by NMED in May 2009 (NMED 2009, 106017). The approved Phase II Investigation/ Remediation work plan (LANL 2009, 107335; NMED 2009, 108122) presented the scope of work needed to characterize and remove the General's Tanks and disposal units, using an observational approach for waste characterization during removal. The work plan indicated that future vapor monitoring at MDA A was not expected to be needed following implementation of the remedy. A sampling campaign of the General's Tanks was performed in April of 2010 (LANL 2011, 208873) to characterize the sludge and liquids contained within the tanks.

The need for vapor monitoring at MDA A was to be determined based on the results of the confirmation sampling prescribed by the Phase II Investigation/Remediation work plan. Because the Phase II Investigation/Remediation work plan was never implemented, the determination of the need for additional pore-gas monitoring at location 21-26593 was never evaluated. Presently, corrective action will follow the original approach of selecting a remedy through the CME process. However, additional pore-gas sampling had been directed by NMED in the 2008 approval with modifications, but has not yet been performed (NMED 2008, 100962). Additional pore-gas sampling at location 21-26593 is recommended to complete the unfinished request.

4.2 Nature and Extent of Contamination and Risk

Based on the data presented in the 2006 MDA A IR (LANL 2006, 095046; NMED 2007, 095047) and the 2007 supplemental investigation status report for MDA A (LANL 2007, 100482; NMED 2008, 100117), the nature and extent of contamination have been defined and no further sampling for extent is warranted at MDA A (SWMU 21-014). Additional sampling is proposed, however, to assess the current concentrations of VOCs and tritium in pore-gas at borehole location 21-26593 and evaluate the temporal trends against historical data from the previous two sample rounds in 2006 and 2007.

Based on the risk-screening assessment results presented in the approved MDA A IR, MDA A does not pose potential unacceptable dose or risk under the industrial scenario. Results of the ecological risk screening assessment indicate no potential risk to ecological receptors.

4.3 Proposed Investigation Activities for Material Disposal Area A

One round of pore-gas samples will be collected from existing borehole location 21-26593 to evaluate the temporal variability of tritium and VOCs in pore gas. All samples will be analyzed for VOCs and tritium. The results will be used to evaluate the extent to which the subsurface vapor pathway must be evaluated in the CME. The proposed sampling location is shown in Figure 4.3-1. A description of the sampling effort is presented in section 5.2.

5.0 INVESTIGATION METHODS

Summaries of the field investigation methods are provided below. Chemical and radiological analyses will be performed in accordance with the Newport News Nuclear BWXT-Los Alamos, LLC (N3B) Exhibit D, "Scope of Work and Technical Specifications for Off-Site Analytical Laboratory Services." Accredited off-site contract analytical laboratories will use the most recent U. S. Environmental Protection Agency (EPA) and industry-accepted extraction and analytical methods for chemical analyses of analytical suites.

5.1 Establishing Sampling Locations

The sampling intervals for borehole location 21-26593 are based on the previously sampled intervals and will be repeated from the 2007 investigation.

5.2 Sampling

Subsurface pore-gas samples for VOCs and tritium will be collected from existing borehole location 21-26593 at MDA A in accordance with N3B-SOP-ER-2008. The samples will be collected every 20 ft, from 15 ft bgs to TD (approx. 115 ft bgs), using an inflatable straddle-packer system capable of isolating discrete 1-ft sample intervals within the borehole. Investigation samples will be collected from the following intervals: 15–16 ft, 34–35 ft, 54–55 ft, 74–75 ft, 94–95 ft, and 114–115 ft or the total depth of the borehole. A purge pump will be used to withdraw borehole and formation vapors.

The static subsurface pressure will be monitored at the time of sample collection. Concentrations of purge indicator gases (carbon dioxide and oxygen) will be monitored continuously using a multigas monitor air analyzer during this pre-sampling cycle. Once indicator-gas concentrations are stable and proper purging has been verified, pore-gas samples will be collected in SUMMA canisters for VOC analysis, and in silica-gel samplers for tritium analysis.

5.3 Field-Screening Methods

Field-screening methods will be used for radiological screening, organic vapor screening, and monitoring of oxygen and carbon dioxide. The sample train may be fitted with, or adapted to, various field screening instruments, such as an air-flow gauge, vacuum gage, a photo-ionization detector (PID), a multigas monitor (Lantec gas extraction meter, MultiRAE Multigas Monitor, or equivalent), or gas chromatograph/mass spectrometer.

Field screening will be used for health and safety purposes, to assure representative samples are collected, and for determining transportability of samples from the field sites to the Sample Management Office (SMO) and from the SMO to the analytical laboratories. Field-screening results may be used at the discretion of the field personnel to identify the need to collect additional samples beyond those planned. Field changes to sampling plans will be approved by the subcontractor technical representative and will be documented on field paperwork and in the IR.

5.3.1 Radiological Screening

Based on the results of past sampling, field screening for radioactivity will be conducted primarily to ensure worker health and safety and to meet U.S. Department of Transportation shipping requirements, rather than to direct sampling. Radiological control technicians must be onsite (per job-specific Radiological Work Permit) to screen for tritium prior to the beginning of sampling. Field screening will be conducted using appropriate field instruments, which will be calibrated in accordance with N3B Radiation Protection Program requirements. All instrument calibration activities will be documented daily in the field logbooks.

5.3.2 Organic Vapor Field Screening

Vapor screening will be conducted using a PID equipped with an 11.7-electronvolt lamp and capable of measuring quantities as low as 1.0 ppm.

The PID will be calibrated daily to the manufacturer's standard for instrument operation, and the daily calibration results will be documented in the field logbooks. All instrument background checks, background ranges, and calibration procedures will be documented daily in the field logbooks.

5.4 Requesting Samples through the Sample Management Office

Sample collection and analysis shall be coordinated with the N3B SMO. Per N3B-SOP-SDM-1101, "Sample Control and Field Documentation," SMO notification requires that knowledgeable sampling personnel must complete Sample Request Module training, obtain sample plan requestor permission within the N3B Environmental Information Management database, and submit a sample plan request at least 5 days before the sampling event. Once the sample plan request is submitted, a summarized copy will be available for download. The SMO will notify the sample plan requestor of the status of the plan (rejected, accepted, or if changes are necessary) and when the sampling paperwork, consisting of sample collection logs, container labels, and a shipping classification determination checklist, is available.

5.5 Chain of Custody for Samples

The collection, screening, and transport of samples will be documented on standard forms generated by the SMO. These include sample collection logs, chain-of-custody forms, and sample container labels. Sample collection logs will be completed at the time of sample collection, and will be signed by the

sampler and a reviewer who will verify the logs for completeness and accuracy. Corresponding labels will be initialed and applied to each sample container, and custody seals will be placed around container lids or openings. Chain-of-custody forms will be completed and signed to verify that sample custody has been maintained throughout the sample life cycle.

5.6 Quality Assurance/Quality Control Samples

Quality assurance (QA) and quality control (QC) samples will include field duplicates (FD) and field blanks (FB).

Two (2) types of QA/QC samples will be required for VOCs: an FD sample and an FB of pure nitrogen (99.99%). The collection of two (2) types of QA/QC samples for tritium will be required: an FD sample and an FB sample of distilled water. FBs will be collected at a frequency of ten percent of samples collected, with at least one FB collected on each day that VOC samples are collected. FDs will be collected at an overall frequency of at least 1 for every 10 regular samples, or as directed by the current version of N3B-SOP-SDM-1100, "Sample Containers, Preservation, and Field Quality Control."

5.7 Laboratory Analytical Methods

The analytical suite for the pore-gas samples includes VOCs and tritium. Vapor samples will be submitted in SUMMA canisters to off-site analytical laboratories for VOC analysis using EPA Method TO-15, and in silica-gel columns for tritium analysis using EPA Method 906. Sample collection and analysis will be coordinated with the SMO.

5.8 Health and Safety

The field investigations described in this final IWP will comply with all applicable requirements pertaining to worker health and safety. An integrated work control document and a site-specific health and safety plan will be in place before fieldwork is conducted.

5.9 Equipment Decontamination

Equipment for sampling will be decontaminated before and after sampling activities to minimize the potential for cross-contamination. Pore-gas sample equipment will be decontaminated in accordance with N3B-SOP-ER-2008.

5.10 Waste Management

Waste generated during field-investigation activities may include, but is not limited to, contaminated personal protective equipment, sampling supplies, and all other waste that has potentially come into contact with contaminants.

All waste generated during field-investigation activities will be managed in accordance with N3B-AP-TRU-2150, "Waste Characterization Strategy Form," applicable EPA and NMED regulations, and DOE orders.

6.0 MONITORING PROGRAMS

6.1 Groundwater

Monitoring of perched intermediate and regional groundwater to evaluate potential releases from all sites at TA-21 is performed under the Consent Order as described for the TA-21 Monitoring Group in the Interim Facility-Wide Groundwater Monitoring Plan. Monitoring results are reported annually to NMED.

6.2 Stormwater

Stormwater runoff from certain SWMUs and AOCs at the Laboratory is monitored under a National Pollutant Discharge Elimination System Individual Permit (IP). MDA A is not an IP site; therefore, it is not included in the IP monitoring program. However, the surrounding area within TA-21 includes 23 site monitoring areas which are reported annually as part of the IP.

7.0 SCHEDULE

Following approval of this work plan, the work will be implemented in accordance with Milestones or Targets for the Material Disposal Areas A and T Remedy Campaign established under the Consent Order. Assuming that review and approval of the document follows schedule, the fieldwork will occur in late 2023 or in early 2024. Monitoring results will be reported in a supplementary investigation report.

8.0 REFERENCES AND MAP DATA SOURCES

8.1 References

The following reference list includes documents cited in this report. Parenthetical information following each reference provides the author(s), publication date, and ERID, ESHID, or EMID. ERIDs were assigned by Los Alamos National Laboratory's (the Laboratory's) Associate Directorate for Environmental Management (IDs through 599999); ESHIDs were assigned by the Laboratory's Associate Directorate for Environment, Safety, and Health (IDs 600000 through 699999); and EMIDs are assigned by N3B (IDs 700000 and above).

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8.2 Map Data Sources

Legend Item	Data Source
Waste Disposal feature	As published; TRIAD SDE Spatial Geodatabase: GISPUBPRD1\PUB.regulatory\PUB.wsf_poly; March 2023.
MDA Boundary	As published; TRIAD SDE Spatial Geodatabase: GISPUBPRD1\PUB.regulatory\PUB.mda_boundary; March 2023.
LANL Boundary	As published; TRIAD SDE Spatial Geodatabase: GISPUBPRD1\PUB.Boundaries\PUB.lanlarea; March 2023.
Structures	As published, County of Los Alamos GIS Server: (https://gis.losalamosnm.us/securegis/rest/services/basemaps/basemap/FeatureServer); March 2023.
Drainage	As published, N3B/T2S, GIS projects folder; \\n3b-fs01\n3b-shares) (Q: GIS DATA) Project: 16-0033; project_data.gdb; line feature dataset; drainage_features; March 2023.
Tech Areas	As published; TRIAD SDE Spatial Geodatabase: GISPUBPRD1\PUB.Boundaries\PUB.tecareas; March 2023.
Major Road	As published; Q:\16-Projects\16-0033\project_data.gdb\line\major_road; March 2023

Legend Item	Data Source
Fences	As published; TRIAD SDE Spatial Geodatabase: GISPUBPRD1\PUB.Infrastructure\PUB.fences_arc; March 2023.
Paved Road	As published; TRIAD SDE Spatial Geodatabase: GISPUBPRD1\PUB.Infrastructure\PUB.paved_rds_arc; March 2023.
Unpaved Road	As published; TRIAD SDE Spatial Geodatabase: GISPUBPRD1\PUB.Infrastructure\PUB.dirt_rds_arc; March 2023.
SWMU or AOC Boundary	As published; TRIAD SDE Spatial Geodatabase: GISEMPRD1\PUB.regulatory\PUB.prs_all_reg_admin; March 2023.
Structures	As published, County of Los Alamos GIS Server: (https://gis.losalamosnm.us/securegis/rest/services/basemaps/basemap/FeatureServer); March 2023.
Index and Terrain Contours (20- and 5-ft Interval)	As published, N3B/T2S, GIS projects folder; \\n3b-fs01\n3b-shares) (Q: GIS DATA) Project: 23-0003; project_data.gdb; line feature dataset; site_contour; All contours generated from the 2014 Bare Earth Elevation Model; N3B/T2S, GIS projects folder; \\n3b-fs01\n3b-shares) Q:\2014\Bare_Earth\BareEarth_DEM_Mosaic.gdb; March 2023.
Sample location	As published, N3B/T2S, GIS projects folder; \\n3b-fs01\n3b-shares) (Q: GIS DATA) Project: 23-0003; project_data.gdb; point feature dataset; mda_a_locations, mda_t_locations, mda_t_locations_1, pore_gas_locations; All data derived from locations originally stored in EIM; March 2023.
Orthophoto	As published; Q:\Aerial\2018\ECW\NMLOSA18_Delivery.ecw, March 2023.

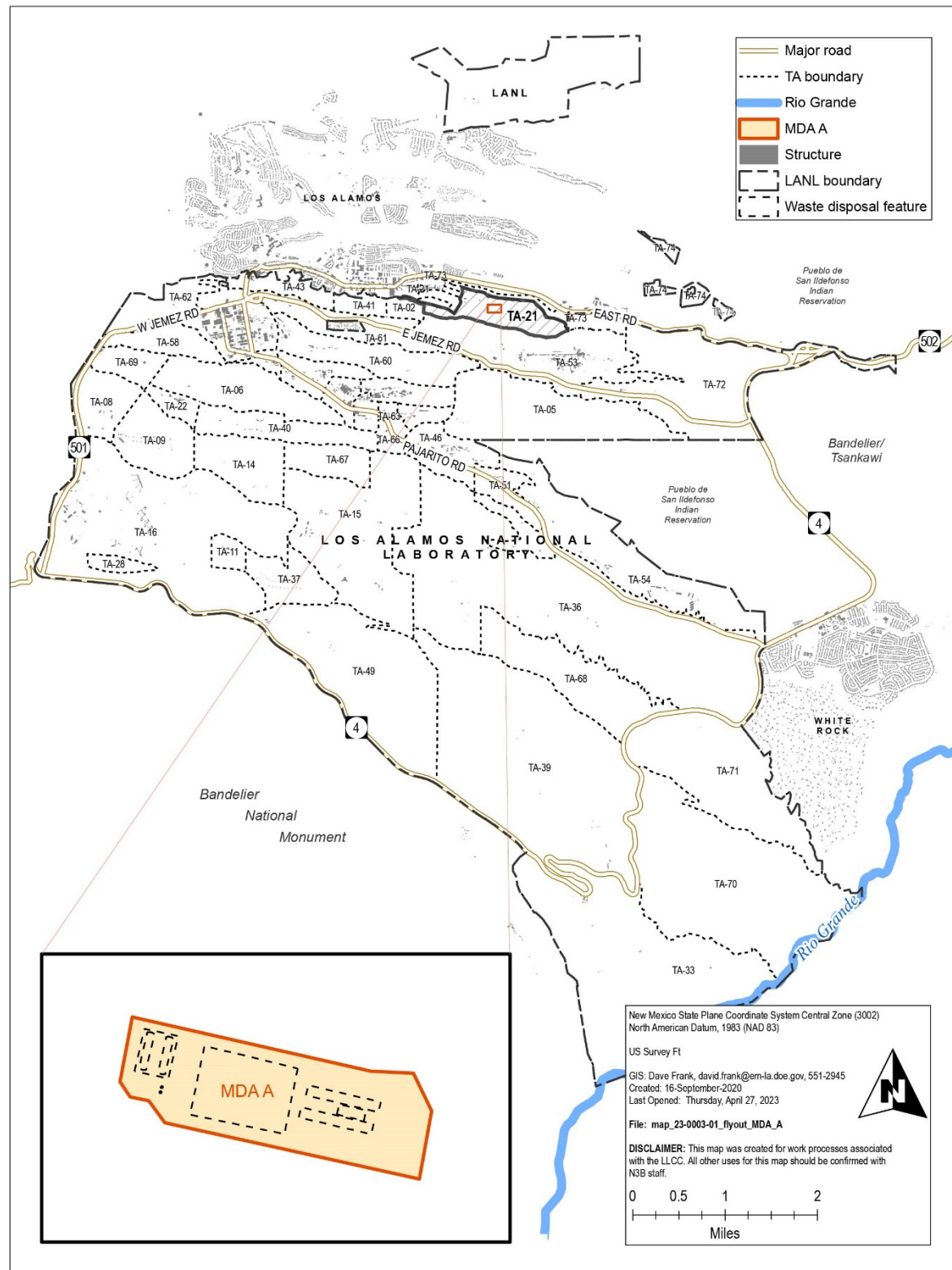


Figure 1.0-1 Location of TA-21 and MDA A with respect to Laboratory technical areas

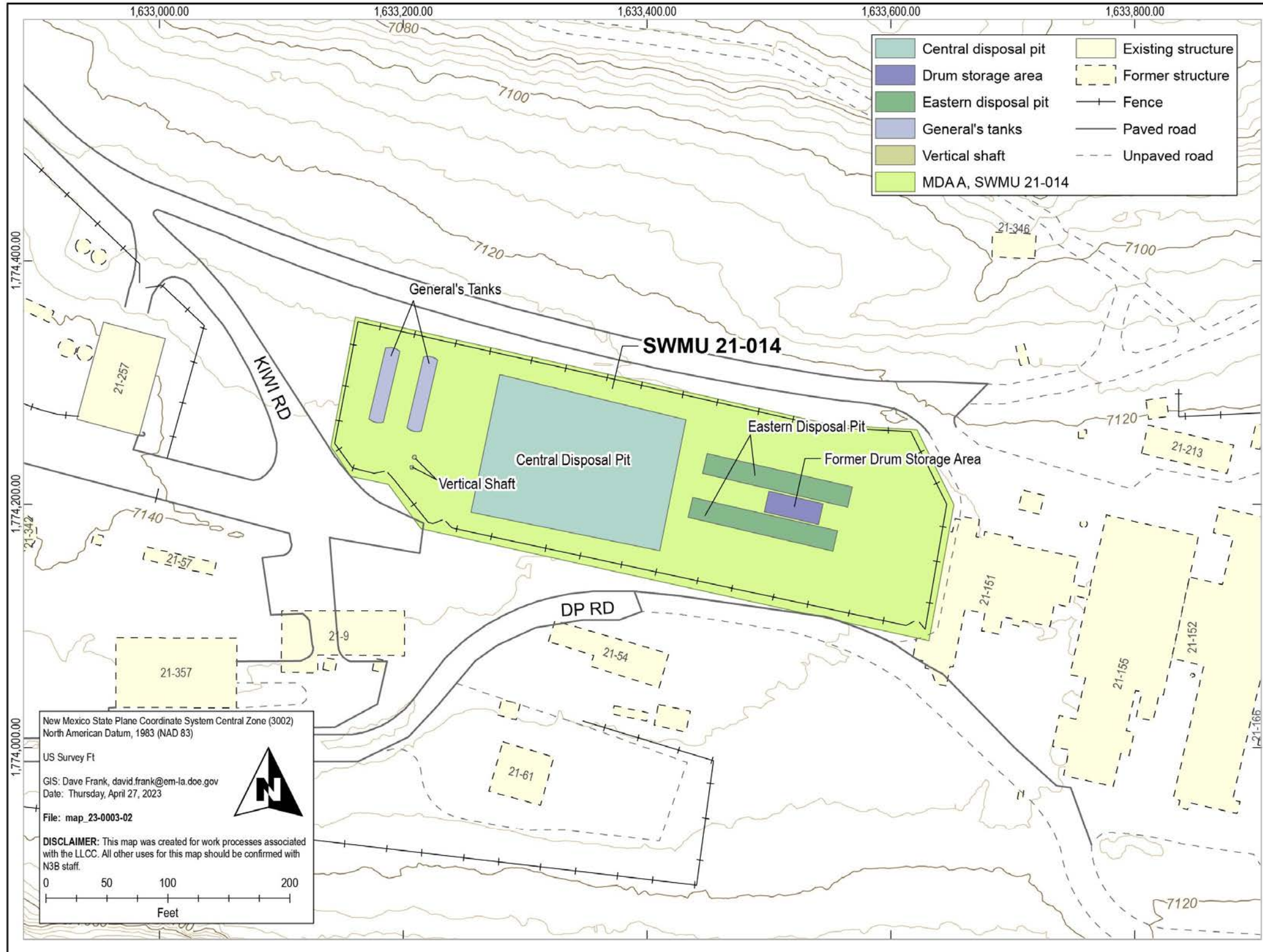


Figure 1.1-1 MDA A site plan

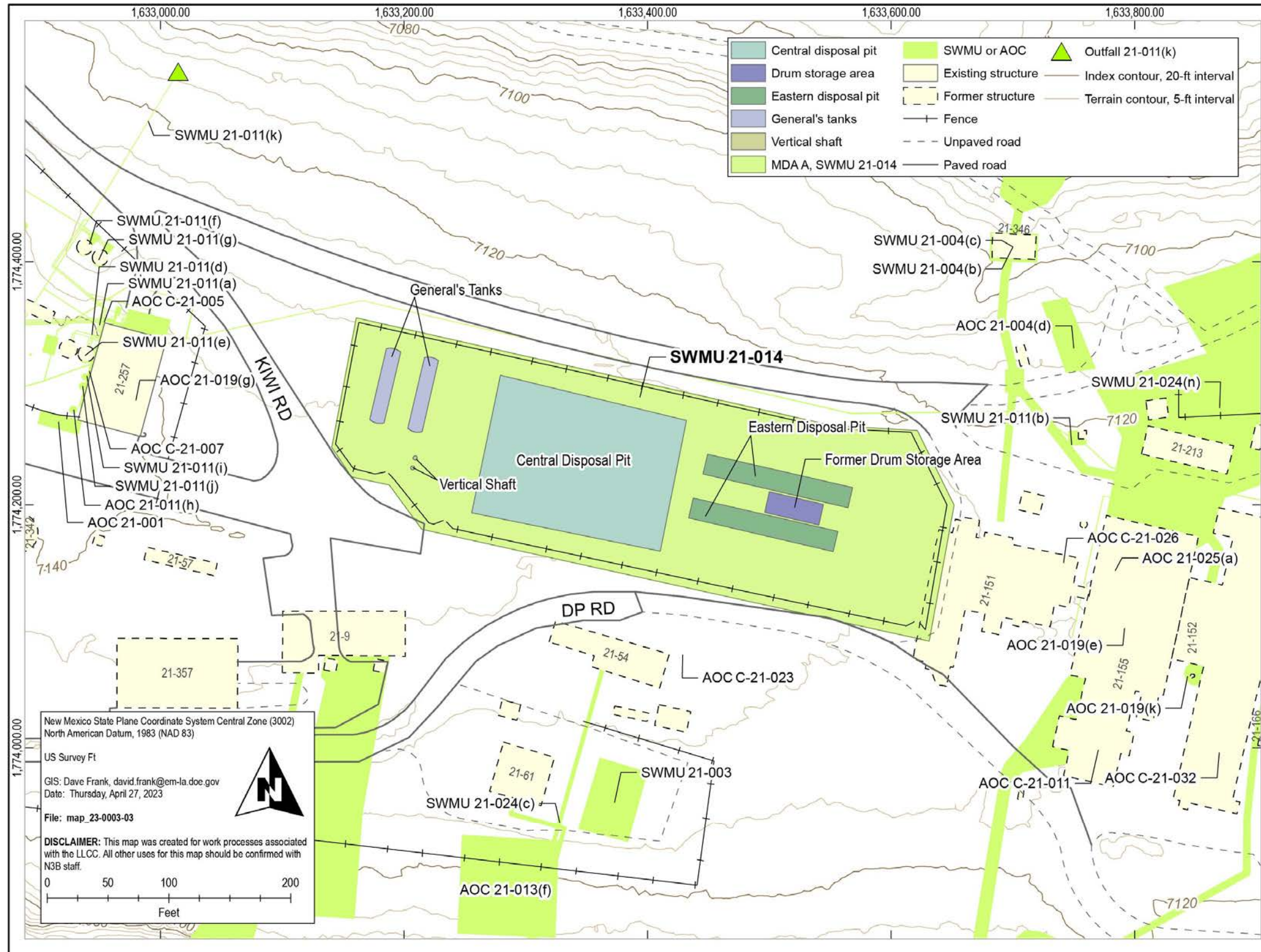


Figure 1.1-2 MDA A Site and surrounding area

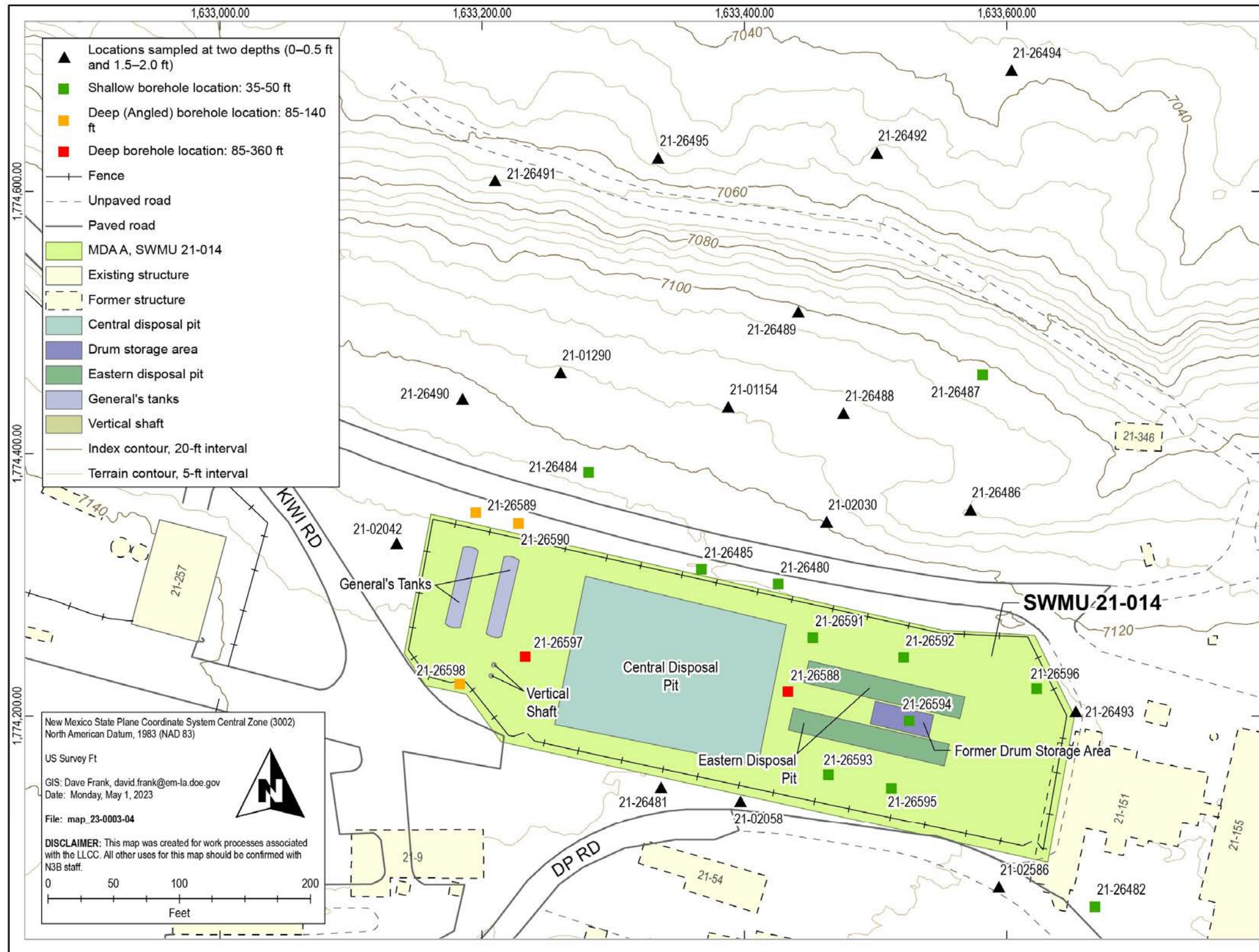


Figure 4.1-1 Surface and subsurface soil sampling locations at MDA A

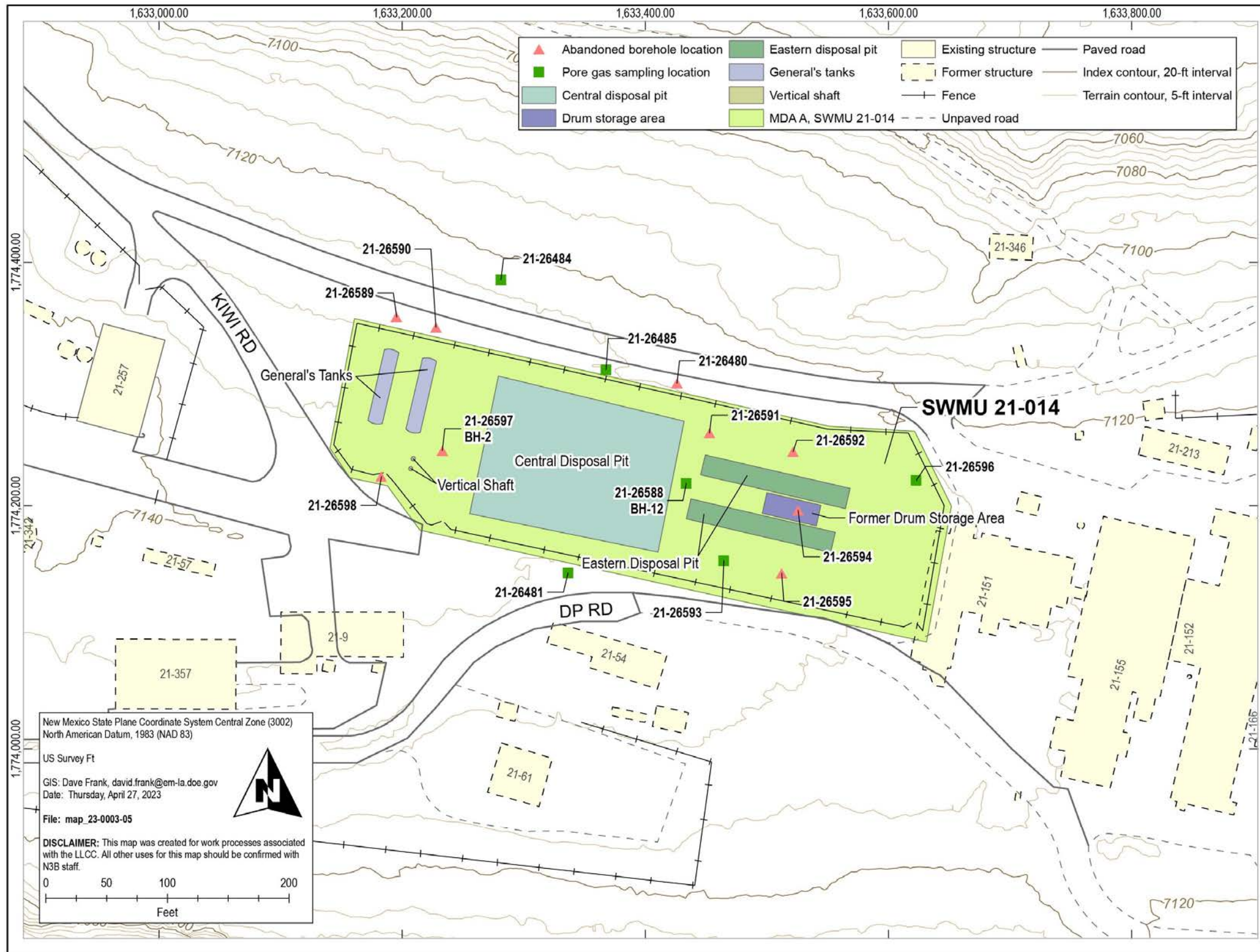


Figure 4.1-2 Location of pore-gas sample collection and borehole abandonment at MDA A

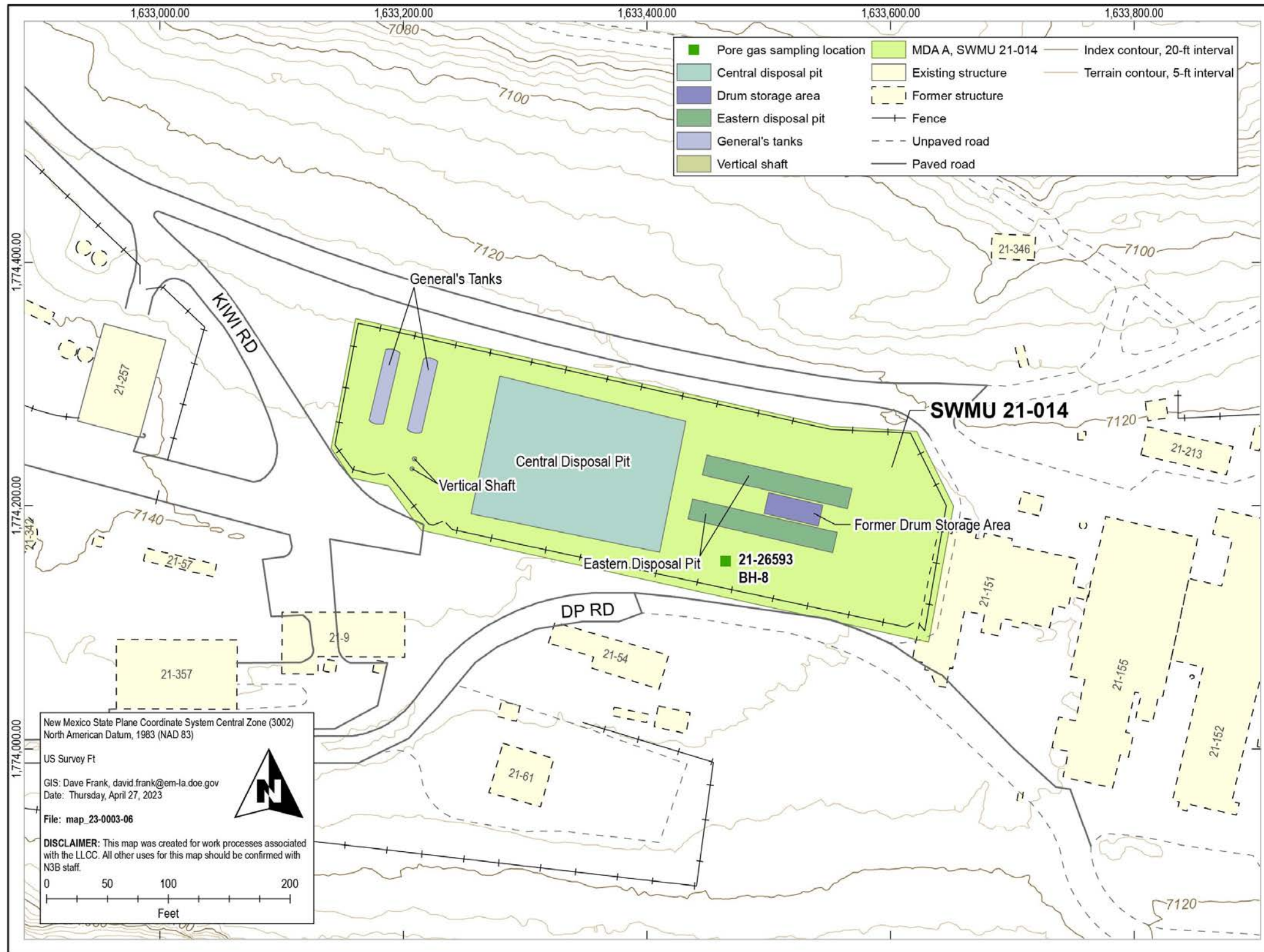


Figure 4.3-1 Proposed pore-gas sampling location 21-26593 (BH 8)

**Table 4.1-1
Summary of Inorganic Chemicals Detected above
Background Values at MDA A and DP Canyon Slope (2006 Investigation Report)**

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide (Total)	Iodide	Iron	Lead
Soil/Fill Background Value^a				29,200	0.83	8.17	295	1.83	0.4	6120	19.3	8.64	14.7	0.5	na^b	21,500	22.3
Qbt 2,3,4 Background Value^a				7340	0.5	2.79	46	1.21	1.63	2200	7.14	3.14	4.66	0.5	na	14,500	11.2
Qbt 1v Background Value^a				8170	0.5	1.81	26.5	1.7	0.4	3700	2.24	1.78	3.26	0.5	na	9900	18.4
Qbt 1g, Qct, Qbo Background Value^a				3560	0.5	0.56	25.7	1.44	0.4	1900	2.6	8.89	3.96	0.5	na	3700	13.5
Industrial Soil Screening Levels^c				100,000	454	17.7	78,300	2250	564	na	5000^d	2050	45,400	13,700	1494^e	100,000	800
Residential Soil Screening Levels^c				77,800	31.3	3.9	15,600	156	39	na	2100^d	1520	3130	1220	205^e	23,500	400
MD21-06-70892	21-01154	0.00-0.50	Soil	— ^f	—	—	—	—	—	—	—	—	—	—	1.169	—	—
MD21-06-70893	21-01154	1.50-2.00	Soil	—	—	—	—	—	0.507 (U)	—	—	—	—	—	0.246	—	—
MD21-06-70908	21-01290	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	1.034	—	—
MD21-06-70909	21-01290	1.50-2.00	Soil	—	—	—	—	—	0.542 (U)	—	—	—	—	—	0.099 (J)	—	—
MD21-06-70900	21-02030	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	1.916	—	—
MD21-06-70901	21-02030	1.50-2.00	Soil	—	—	—	—	—	0.5 (U)	—	—	—	—	—	0.424	—	—
MD21-06-70932	21-02042	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	2.067	—	—
MD21-06-70933	21-02042	1.50-2.00	Soil	—	—	—	—	—	—	—	—	—	—	—	3.111	—	—
MD21-06-70924	21-02058	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	0.428	—	40.9
MD21-06-70925	21-02058	1.50-2.00	Soil	—	—	—	—	—	—	—	—	13.1	—	—	5.771	—	—
MD21-06-70916	21-02586	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	0.347	—	—
MD21-06-70917	21-02586	1.50-2.00	Soil	—	—	—	—	—	0.56 (U)	—	—	—	—	—	2.381	—	—
MD21-06-70727	21-26480	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	0.569	—	—
MD21-06-70728	21-26480	25.00-27.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	2.06	—	—	—
MD21-06-70730	21-26480	36.00-38.50	Qbt 3	—	—	2.84 (U)	—	—	—	—	—	—	—	—	0.05 (J)	—	—
MD21-06-70729	21-26480	42.00-44.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70745	21-26481	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	0.266 (J)	—	—
MD21-06-70746	21-26481	25.00-27.00	Qbt 3	15600	—	3.65	95.4	—	—	—	7.63	—	4.88	—	0.431	—	—
MD21-06-70748	21-26481	40.50-42.00	Qbt 3	—	—	3.76	—	—	—	—	—	—	—	—	0.496	—	—
MD21-06-70747	21-26481	43.00-45.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70773	21-26482	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	0.743	—	—
MD21-06-70774	21-26482	13.20-15.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70776	21-26482	19.00-22.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70775	21-26482	30.00-32.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70778	21-26482	47.30-49.00	Qbt 3	—	—	2.88	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70777	21-26482	49.00-50.00	Qbt 3	7880	—	3.44	—	1.27 (J)	—	—	—	—	—	—	0.715	—	—
MD21-06-70819	21-26484	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	1.16	—	—

Table 4.1-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide (Total)	Iodide	Iron	Lead
Soil/Fill Background Value^a				29200	0.83	8.17	295	1.83	0.4	6120	19.3	8.64	14.7	0.5	na^b	21500	22.3
Qbt 2,3,4 Background Value^a				7340	0.5	2.79	46	1.21	1.63	2200	7.14	3.14	4.66	0.5	na	14500	11.2
Qbt 1v Background Value^a				8170	0.5	1.81	26.5	1.7	0.4	3700	2.24	1.78	3.26	0.5	na	9900	18.4
Qbt 1g, Qct, Qbo Background Value^a				3560	0.5	0.56	25.7	1.44	0.4	1900	2.6	8.89	3.96	0.5	na	3700	13.5
Industrial Soil Screening Levels^c				100000	454	17.7	78300	2250	564	na	5000^d	2050	45400	13700	1494^e	100000	800
Residential Soil Screening Levels^c				77800	31.3	3.9	15600	156	39	na	2100^d	1520	3130	1220	205^e	23500	400
MD21-06-70820	21-26484	13.00-15.00	Qbt 3	9580 (J+)	—	—	—	—	—	—	—	—	—	—	0.7	—	—
MD21-06-70822	21-26484	25.00-27.00	Qbt 3	11800 (J+)	—	6.76	—	—	—	—	—	—	—	—	0.738	—	12.4
MD21-06-70823	21-26484	35.00-37.00	Qbt 3	—	—	3.38 (U)	—	—	—	—	—	—	—	—	0.346	—	—
MD21-06-70821	21-26484	43.00-45.00	Qbt 3	—	—	2.89 (U)	—	—	—	—	—	—	—	—	0.419	—	—
MD21-06-70837	21-26485	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	2.5	—	—
MD21-06-70838	21-26485	24.00-26.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	0.038 (J)	—	—
MD21-06-70842	21-26485	28.00-30.00	Qbt 3	—	—	3 (U)	—	—	—	—	—	—	—	—	0.168 (J)	—	—
MD21-06-70840	21-26485	30.00-32.00	Qbt 3	15400 (J+)	—	4.62	48.7	1.85	—	—	8.18	—	6.16	—	0.693	—	13.5
MD21-06-70841	21-26485	32.00-34.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70839	21-26485	43.00-45.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70946	21-26486	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	1.441	—	—
MD21-06-70947	21-26486	1.50-2.00	Soil	—	—	—	—	—	—	—	—	—	—	—	2.694	—	—
MD21-06-70954	21-26487	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	0.448	—	—
MD21-06-70955	21-26487	1.50-2.00	Soil	—	—	—	—	—	0.513 (U)	—	—	—	—	—	0.431	—	23.5
MD21-06-70962	21-26488	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	2.014	—	45.7
MD21-06-70963	21-26488	1.50-2.00	Soil	—	2.16 (UJ)	—	—	—	0.547 (U)	—	—	—	—	—	2.355	—	598
MD21-06-70970	21-26489	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	1.589	—	31.6
MD21-06-70971	21-26489	1.50-2.00	Soil	—	—	—	—	—	0.494 (U)	—	—	—	—	—	0.39	—	67.6
MD21-06-70978	21-26490	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	1.779	—	—
MD21-06-70979	21-26490	1.50-2.00	Soil	—	—	—	—	—	—	—	—	—	—	—	0.984	—	—
MD21-06-70992	21-26491	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	1.43	—	—
MD21-06-70993	21-26491	1.50-2.00	Soil	—	—	—	—	—	0.542 (U)	—	—	—	—	—	1.891	—	—
MD21-06-70996	21-26492	0.00-0.50	Soil	—	—	—	—	—	0.495 (U)	—	—	—	—	—	1.216	—	—
MD21-06-70997	21-26492	1.50-2.00	Soil	—	—	—	—	—	0.537 (U)	—	—	—	—	—	1.473	—	—
MD21-06-71000	21-26493	0.00-0.50	Soil	—	—	—	—	—	0.554 (U)	—	—	—	—	—	5.481	—	—
MD21-06-71001	21-26493	1.50-2.00	Soil	—	—	—	—	—	0.529 (U)	—	—	—	—	—	0.142 (J)	—	—
MD21-06-71004	21-26494	0.00-0.50	Soil	—	—	—	—	—	0.537 (U)	—	—	—	—	—	3.132	—	—
MD21-06-71005	21-26494	1.50-2.00	Soil	31400 (J+)	—	—	512	—	0.537 (U)	6150 (J+)	—	—	—	—	4.079	—	—

Table 4.1-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide (Total)	Iodide	Iron	Lead
Soil/Fill Background Value^a				29200	0.83	8.17	295	1.83	0.4	6120	19.3	8.64	14.7	0.5	na^b	21500	22.3
Qbt 2,3,4 Background Value^a				7340	0.5	2.79	46	1.21	1.63	2200	7.14	3.14	4.66	0.5	na	14500	11.2
Qbt 1v Background Value^a				8170	0.5	1.81	26.5	1.7	0.4	3700	2.24	1.78	3.26	0.5	na	9900	18.4
Qbt 1g, Qct, Qbo Background Value^a				3560	0.5	0.56	25.7	1.44	0.4	1900	2.6	8.89	3.96	0.5	na	3700	13.5
Industrial Soil Screening Levels^c				100000	454	17.7	78300	2250	564	na	5000^d	2050	45400	13700	1494^e	100000	800
Residential Soil Screening Levels^c				77800	31.3	3.9	15600	156	39	na	2100^d	1520	3130	1220	205^e	23500	400
MD21-06-71008	21-26495	0.00-0.50	Soil	—	—	—	—	—	0.506 (U)	—	—	—	—	—	1.307	—	—
MD21-06-71009	21-26495	1.50-2.00	Soil	—	—	—	—	—	0.554 (U)	—	—	—	—	—	2.113	—	—
MD21-06-71293	21-26588	0.00-0.50	Fill	—	—	—	—	—	0.552 (U)	—	—	—	—	—	1.79	—	—
MD21-06-71294	21-26588	5.50-7.00	Fill	—	—	—	—	—	—	—	—	—	—	—	0.11 (J)	—	—
MD21-06-71295	21-26588	15.00-17.50	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	0.04 (J)	—	—
MD21-06-71296	21-26588	25.00-27.50	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71297	21-26588	62.50-65.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71298	21-26588	110.00-112.00	Qbt 2	—	—	—	—	—	—	—	—	—	—	—	0.28	—	—
MD21-06-71299	21-26588	200.00-202.50	Qbt 1v	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71300	21-26588	300.00-302.50	Qbt 1g	—	—	1.56 (U)	30.5	—	0.521 (U)	—	—	—	—	—	—	—	—
MD21-06-71301	21-26588	355.00-360.00	Qbo	9110	—	0.793 (J)	31.3	—	0.529 (U)	—	10.1 (J)	—	4.09	—	—	8020	—
MD21-06-71320	21-26589	0.00-0.50	Soil	—	—	—	—	—	0.548 (U)	—	—	—	—	—	2.49	—	—
MD21-06-71321	21-26589	7.00-9.00	Soil	—	—	—	—	—	0.551 (U)	11900	—	—	—	—	1.48	—	—
MD21-06-71322	21-26589	17.00-19.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	0.151 (J)	—	—
MD21-06-71323	21-26589	47.00-52.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	0.134 (J)	—	—
MD21-06-71324	21-26589	78.00-80.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71325	21-26589	92.00-94.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71326	21-26589	138.00-140.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71337	21-26590	0.00-0.50	Fill	—	—	—	—	—	—	—	—	—	—	—	0.637	—	—
MD21-06-71338	21-26590	1.50-3.00	Fill	—	—	—	—	—	—	—	—	—	—	—	1.981	—	—
MD21-06-71339	21-26590	27.00-30.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71340	21-26590	45.00-50.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71341	21-26590	75.00-77.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71342	21-26590	100.00-102.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71343	21-26590	137.00-140.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71352	21-26591	0.00-0.50	Fill	—	—	—	—	—	0.599 (U)	—	—	—	—	—	1.8	—	—
MD21-06-71353	21-26591	1.50-2.50	Fill	—	—	—	—	—	0.52 (U)	—	—	—	—	—	2.72	—	—
MD21-06-71354	21-26591	15.00-17.00	Qbt 3	—	—	3.01	—	—	—	—	—	—	—	—	—	—	—

Table 4.1-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide (Total)	Iodide	Iron	Lead
Soil/Fill Background Value^a				29200	0.83	8.17	295	1.83	0.4	6120	19.3	8.64	14.7	0.5	na^b	21500	22.3
Qbt 2,3,4 Background Value^a				7340	0.5	2.79	46	1.21	1.63	2200	7.14	3.14	4.66	0.5	na	14500	11.2
Qbt 1v Background Value^a				8170	0.5	1.81	26.5	1.7	0.4	3700	2.24	1.78	3.26	0.5	na	9900	18.4
Qbt 1g, Qct, Qbo Background Value^a				3560	0.5	0.56	25.7	1.44	0.4	1900	2.6	8.89	3.96	0.5	na	3700	13.5
Industrial Soil Screening Levels^c				100000	454	17.7	78300	2250	564	na	5000^d	2050	45400	13700	1494^e	100000	800
Residential Soil Screening Levels^c				77800	31.3	3.9	15600	156	39	na	2100^d	1520	3130	1220	205^e	23500	400
MD21-06-71355	21-26591	27.00-30.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71356	21-26591	30.00-35.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71361	21-26592	0.00-0.50	Fill	—	—	—	—	—	0.575 (U)	—	—	—	—	—	2.01	—	—
MD21-06-71362	21-26592	1.50-4.00	Fill	—	—	—	—	—	0.514 (U)	—	—	—	—	—	4.33	—	—
MD21-06-71363	21-26592	15.00-17.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	0.04 (J)	—	—
MD21-06-71364	21-26592	23.00-25.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	0.6	—	—
MD21-06-71365	21-26592	33.00-35.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	0.17 (J)	—	—
MD21-06-71388	21-26593	0.00-0.50	Fill	—	—	—	—	—	—	—	—	—	—	—	1.48	—	—
MD21-06-71389	21-26593	1.50-2.00	Fill	—	—	—	—	—	0.559 (U)	—	—	—	—	—	2.35	—	—
MD21-06-71384	21-26593	3.00-7.00	Fill	—	—	—	—	—	—	—	—	13.6	—	—	5.19	—	—
MD21-06-71385	21-26593	15.00-17.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71386	21-26593	21.00-23.00	Qbt 3	—	—	—	53.6	—	—	—	—	—	—	—	0.67	—	—
MD21-06-71387	21-26593	33.00-35.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71393	21-26594	0.00-0.50	Fill	—	—	—	—	—	—	—	—	—	—	—	16.25	—	—
MD21-06-71394	21-26594	1.50-3.00	Fill	—	—	—	—	—	0.542 (U)	6220 (J+)	—	—	—	—	156.47	—	—
MD21-06-71395	21-26594	17.00-20.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	28.97	—	—
MD21-06-71396	21-26594	25.00-27.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	57.75	—	—
MD21-06-71397	21-26594	30.00-35.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	54.12	—	—
MD21-06-71416	21-26595	0.00-0.50	Fill	—	—	—	—	—	—	—	—	—	—	—	2.15	—	—
MD21-06-71417	21-26595	1.50-2.00	Fill	—	—	—	—	—	—	—	—	10.7	—	—	6.28	—	—
MD21-06-71418	21-26595	2.00-3.50	Fill	—	—	—	—	—	0.522 (U)	—	—	—	—	—	1.66	—	—
MD21-06-71419	21-26595	15.00-17.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71420	21-26595	23.00-25.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71421	21-26595	33.00-35.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71425	21-26596	0.00-0.50	Fill	—	—	—	—	—	—	—	—	—	—	—	0.35	—	—
MD21-06-71426	21-26596	3.00-5.00	Fill	—	—	—	—	—	—	—	—	—	—	—	2.11	—	—
MD21-06-71427	21-26596	5.00-7.50	Qbt 3	7940	—	3.08	73 (J-)	—	—	—	—	—	—	—	0.73	—	—
MD21-06-71428	21-26596	17.00-20.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 4.1-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Cyanide (Total)	Iodide	Iron	Lead
Soil/Fill Background Value^a				29200	0.83	8.17	295	1.83	0.4	6120	19.3	8.64	14.7	0.5	na^b	21500	22.3
Qbt 2,3,4 Background Value^a				7340	0.5	2.79	46	1.21	1.63	2200	7.14	3.14	4.66	0.5	na	14500	11.2
Qbt 1v Background Value^a				8170	0.5	1.81	26.5	1.7	0.4	3700	2.24	1.78	3.26	0.5	na	9900	18.4
Qbt 1g, Qct, Qbo Background Value^a				3560	0.5	0.56	25.7	1.44	0.4	1900	2.6	8.89	3.96	0.5	na	3700	13.5
Industrial Soil Screening Levels^c				100000	454	17.7	78300	2250	564	na	5000^d	2050	45400	13700	1494^e	100000	800
Residential Soil Screening Levels^c				77800	31.3	3.9	15600	156	39	na	2100^d	1520	3130	1220	205^e	23500	400
MD21-06-71429	21-26596	27.00-30.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	0.04 (J)	—	—
MD21-06-71430	21-26596	32.00-35.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	0.07 (J)	—	—
MD21-06-71448	21-26597	0.00-0.50	Fill	—	—	—	—	—	0.597 (U)	—	—	—	—	—	2.55	—	—
MD21-06-71449	21-26597	1.50-3.00	Fill	—	—	—	—	—	0.522 (U)	—	—	—	—	—	1.93	—	—
MD21-06-71450	21-26597	12.00-15.00	Qbt 3	—	—	3.48	—	—	—	—	—	—	—	—	0.44	—	—
MD21-06-71451	21-26597	23.00-25.00	Qbt 3	11200 (J+)	—	—	—	—	—	—	—	—	—	—	1.23	—	—
MD21-06-71452	21-26597	80.00-85.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71457	21-26598	0.00-0.50	Fill	—	—	—	—	—	—	—	—	—	—	—	0.897	—	—
MD21-06-71458	21-26598	1.50-3.00	Fill	—	—	—	—	—	—	—	—	—	—	—	0.815	—	—
MD21-06-71459	21-26598	25.00-30.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	0.039 (J)	—	—
MD21-06-71460	21-26598	50.00-55.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71461	21-26598	82.50-85.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 4.1-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Magnesium	Manganese	Mercury	Nickel	Nitrate	Perchlorate	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc
Soil/Fill Background Value^a				4610	671	0.1	15.4	na	na	1.52	1	915	0.73	1.82	39.6	48.8
Qbt 2,3,4 Background Value^a				1690	482	0.1	6.58	na	na	0.3	1	2770	1.1	2.4	17	63.5
Qbt 1v Background Value^a				780	408	0.1	2	na	na	0.3	1	6330	1.24	6.22	4.48	84.6
Qbt 1g, Qct, Qbo Background Value^a				739	189	0.1	2	na	na	0.3	1	4350	1.22	0.72	4.59	40
Industrial Soil Screening Levels^c				na	48,400	340^e	22,700	100,000	790^e	5680	5680	na	74.9	200^g	1140	100,000
Residential Soil Screening Levels^c				na	3590	23^e	1560	100,000	55^e	391	391	na	5.16	16^g	78.2	23,500
MD21-06-70892	21-01154	0.00-0.50	Soil	—	—	—	—	—	0.00072 (J)	—	—	—	—	—	—	—
MD21-06-70893	21-01154	1.50-2.00	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70908	21-01290	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70909	21-01290	1.50-2.00	Soil	—	—	—	—	—	—	1.63 (U)	—	—	1.13 (U)	—	—	—
MD21-06-70900	21-02030	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70901	21-02030	1.50-2.00	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70932	21-02042	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70933	21-02042	1.50-2.00	Soil	—	—	—	—	—	0.00103 (J)	1.6 (U)	—	—	—	—	—	—
MD21-06-70924	21-02058	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—	95.9
MD21-06-70925	21-02058	1.50-2.00	Soil	—	953	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70916	21-02586	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70917	21-02586	1.50-2.00	Soil	—	—	—	—	—	—	1.68 (U)	—	—	—	—	—	—
MD21-06-70727	21-26480	0.00-0.50	Soil	—	—	—	—	0.978 (J)	—	1.54 (U)	—	—	—	—	—	59.9
MD21-06-70728	21-26480	25.00-27.00	Qbt 3	—	—	—	—	0.95 (J)	—	1.53 (U)	—	—	—	—	—	—
MD21-06-70730	21-26480	36.00-38.50	Qbt 3	—	—	—	—	0.97 (J)	—	1.58 (U)	—	—	—	—	—	—
MD21-06-70729	21-26480	42.00-44.00	Qbt 3	—	—	—	—	0.953 (J)	—	1.52 (U)	—	—	—	—	—	—
MD21-06-70745	21-26481	0.00-0.50	Soil	—	—	—	—	0.99 (J)	—	—	—	—	—	—	—	—
MD21-06-70746	21-26481	25.00-27.00	Qbt 3	1850	—	—	—	2.47	—	1.13 (J)	—	—	—	—	—	—
MD21-06-70748	21-26481	40.50-42.00	Qbt 3	—	—	—	—	1.94	0.000912 (J)	1.59 (U)	—	—	—	—	—	—
MD21-06-70747	21-26481	43.00-45.00	Qbt 3	—	—	—	—	1.49	—	1.55 (U)	—	—	—	—	—	—
MD21-06-70773	21-26482	0.00-0.50	Soil	—	—	—	—	2.34	—	—	—	—	—	—	—	—
MD21-06-70774	21-26482	13.20-15.00	Qbt 3	—	—	—	—	1.01 (J)	—	1.5 (U)	—	—	—	—	—	—
MD21-06-70776	21-26482	19.00-22.00	Qbt 3	—	—	—	—	0.95 (J)	—	1.51 (U)	—	—	—	—	—	—
MD21-06-70775	21-26482	30.00-32.00	Qbt 3	—	—	—	—	0.967 (J)	—	1.52 (U)	—	—	—	—	—	—
MD21-06-70778	21-26482	47.30-49.00	Qbt 3	—	—	—	—	1.32	—	1.88 (U)	—	—	—	—	—	—
MD21-06-70777	21-26482	49.00-50.00	Qbt 3	—	—	—	—	1.25	—	1.58 (U)	—	—	—	—	—	—
MD21-06-70819	21-26484	0.00-0.50	Soil	—	—	0.146	—	0.929 (J)	—	—	—	—	—	—	—	—

Table 4.1-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Magnesium	Manganese	Mercury	Nickel	Nitrate	Perchlorate	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc
Soil/Fill Background Value^a				4610	671	0.1	15.4	na	na	1.52	1	915	0.73	1.82	39.6	48.8
Qbt 2,3,4 Background Value^a				1690	482	0.1	6.58	na	na	0.3	1	2770	1.1	2.4	17	63.5
Qbt 1v Background Value^a				780	408	0.1	2	na	na	0.3	1	6330	1.24	6.22	4.48	84.6
Qbt 1g, Qct, Qbo Background Value^a				739	189	0.1	2	na	na	0.3	1	4350	1.22	0.72	4.59	40
Industrial Soil Screening Levels^c				na	48,400	340^e	22,700	100,000	790^e	5680	5680	na	74.9	200^g	1140	100,000
Residential Soil Screening Levels^c				na	3590	23^e	1560	100,000	55^e	391	391	na	5.16	16^g	78.2	23,500
MD21-06-70820	21-26484	13.00-15.00	Qbt 3	—	—	—	—	0.957 (J)	0.000581 (J)	1.54 (U)	—	—	—	—	—	—
MD21-06-70822	21-26484	25.00-27.00	Qbt 3	—	—	—	—	0.972 (J)	0.00379	1.58 (U)	—	—	—	—	19.8	—
MD21-06-70823	21-26484	35.00-37.00	Qbt 3	—	—	—	—	0.96 (J)	0.00238	1.57 (U)	—	—	—	—	—	—
MD21-06-70821	21-26484	43.00-45.00	Qbt 3	—	—	—	—	0.999 (J)	0.00104 (J)	1.51 (U)	—	—	—	—	—	—
MD21-06-70837	21-26485	0.00-0.50	Soil	—	—	—	—	1.05	—	1.56 (U)	—	—	—	—	—	60.4
MD21-06-70838	21-26485	24.00-26.00	Qbt 3	—	—	—	—	0.942 (J)	—	1.51 (U)	—	—	—	—	—	—
MD21-06-70842	21-26485	28.00-30.00	Qbt 3	—	—	—	—	0.954 (J)	0.000643 (J)	1.5 (U)	—	—	—	—	—	—
MD21-06-70840	21-26485	30.00-32.00	Qbt 3	2520 (J+)	—	—	—	0.977 (J)	—	1.63 (U)	—	—	—	—	—	—
MD21-06-70841	21-26485	32.00-34.00	Qbt 3	—	—	—	—	0.932 (J)	—	1.49 (U)	—	—	—	—	—	—
MD21-06-70839	21-26485	43.00-45.00	Qbt 3	—	—	—	—	0.954 (J)	—	1.53 (U)	—	—	—	—	—	—
MD21-06-70946	21-26486	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70947	21-26486	1.50-2.00	Soil	—	—	—	—	—	—	1.62 (U)	—	—	—	—	—	—
MD21-06-70954	21-26487	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70955	21-26487	1.50-2.00	Soil	—	—	—	—	—	—	1.54 (U)	—	—	—	—	—	—
MD21-06-70962	21-26488	0.00-0.50	Soil	—	—	—	—	—	—	1.6 (U)	—	—	—	—	—	—
MD21-06-70963	21-26488	1.50-2.00	Soil	—	1500	—	—	—	—	—	1.08 (U)	—	1.9	—	—	283
MD21-06-70970	21-26489	0.00-0.50	Soil	—	—	—	—	—	—	1.61 (U)	—	—	—	2.25	—	—
MD21-06-70971	21-26489	1.50-2.00	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70978	21-26490	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70979	21-26490	1.50-2.00	Soil	—	—	—	—	—	0.000534 (J)	1.53 (U)	—	—	—	—	—	—
MD21-06-70992	21-26491	0.00-0.50	Soil	—	—	—	—	—	—	1.79 (U)	—	—	—	—	—	—
MD21-06-70993	21-26491	1.50-2.00	Soil	—	—	—	—	—	0.000925 (J)	1.63 (U)	—	—	—	—	—	—
MD21-06-70996	21-26492	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70997	21-26492	1.50-2.00	Soil	—	—	—	—	—	0.000861 (J)	1.61 (U)	—	—	—	—	—	—
MD21-06-71000	21-26493	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71001	21-26493	1.50-2.00	Soil	—	—	—	—	—	—	1.59 (U)	—	—	—	—	—	—
MD21-06-71004	21-26494	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71005	21-26494	1.50-2.00	Soil	—	—	—	—	—	0.00285	—	—	951	—	—	—	—

Table 4.1-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Magnesium	Manganese	Mercury	Nickel	Nitrate	Perchlorate	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc
Soil/Fill Background Value^a				4610	671	0.1	15.4	na	na	1.52	1	915	0.73	1.82	39.6	48.8
Qbt 2,3,4 Background Value^a				1690	482	0.1	6.58	na	na	0.3	1	2770	1.1	2.4	17	63.5
Qbt 1v Background Value^a				780	408	0.1	2	na	na	0.3	1	6330	1.24	6.22	4.48	84.6
Qbt 1g, Qct, Qbo Background Value^a				739	189	0.1	2	na	na	0.3	1	4350	1.22	0.72	4.59	40
Industrial Soil Screening Levels^c				na	48,400	340^e	22,700	100,000	790^e	5680	5680	na	74.9	200^g	1140	100,000
Residential Soil Screening Levels^c				na	3590	23^e	1560	100,000	55^e	391	391	na	5.16	16^g	78.2	23,500
MD21-06-71008	21-26495	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71009	21-26495	1.50-2.00	Soil	—	—	—	—	—	0.000699 (J)	—	—	—	—	—	—	—
MD21-06-71293	21-26588	0.00-0.50	Fill	—	—	—	—	—	0.000792 (J)	1.66 (U)	—	—	—	—	—	—
MD21-06-71294	21-26588	5.50-7.00	Fill	—	—	—	—	—	0.000606 (J)	1.6 (U)	—	—	—	—	—	—
MD21-06-71295	21-26588	15.00-17.50	Qbt 3	—	—	—	—	—	0.00052 (J)	1.53 (U)	—	—	—	—	—	—
MD21-06-71296	21-26588	25.00-27.50	Qbt 3	—	—	—	—	—	0.000846 (J)	1.55 (U)	—	—	—	—	—	—
MD21-06-71297	21-26588	62.50-65.00	Qbt 3	—	—	—	—	—	—	1.55 (U)	—	—	—	—	—	—
MD21-06-71298	21-26588	110.00-112.00	Qbt 2	—	—	—	—	—	0.00761	1.52 (U)	—	—	—	—	—	—
MD21-06-71299	21-26588	200.00-202.50	Qbt 1v	—	—	—	—	—	—	1.51 (U)	—	—	—	—	—	—
MD21-06-71300	21-26588	300.00-302.50	Qbt 1g	—	—	—	—	—	—	1.56 (U)	—	—	—	—	—	—
MD21-06-71301	21-26588	355.00-360.00	Qbo	—	342	—	4.22	—	—	0.716 (J)	—	—	—	—	10.3	—
MD21-06-71320	21-26589	0.00-0.50	Soil	—	—	—	—	—	0.000819 (J)	1.87	—	—	—	—	—	—
MD21-06-71321	21-26589	7.00-9.00	Soil	—	—	—	—	—	—	1.65 (U)	—	—	—	—	—	—
MD21-06-71322	21-26589	17.00-19.00	Qbt 3	—	—	—	—	—	—	0.716 (J)	—	—	—	—	—	—
MD21-06-71323	21-26589	47.00-52.00	Qbt 3	—	—	—	—	—	—	1.48 (U)	—	—	—	—	—	—
MD21-06-71324	21-26589	78.00-80.00	Qbt 3	—	—	—	—	—	0.00163 (J)	1.53 (U)	—	—	—	—	—	—
MD21-06-71325	21-26589	92.00-94.00	Qbt 3	—	—	—	—	—	0.00172 (J)	1.56 (U)	—	—	—	—	—	—
MD21-06-71326	21-26589	138.00-140.00	Qbt 3	—	—	—	—	—	—	1.54 (U)	—	—	—	—	—	—
MD21-06-71337	21-26590	0.00-0.50	Fill	—	—	—	—	—	—	1.61 (U)	—	—	—	—	—	—
MD21-06-71338	21-26590	1.50-3.00	Fill	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71339	21-26590	27.00-30.00	Qbt 3	—	—	—	—	—	—	1.49 (U)	—	—	—	—	—	—
MD21-06-71340	21-26590	45.00-50.00	Qbt 3	—	—	—	—	—	—	1.54 (U)	—	—	—	—	—	—
MD21-06-71341	21-26590	75.00-77.00	Qbt 3	—	—	—	—	—	—	1.46 (U)	—	—	—	—	—	—
MD21-06-71342	21-26590	100.00-102.00	Qbt 3	—	—	—	—	—	0.00077 (J+)	1.53 (U)	—	—	—	—	—	—
MD21-06-71343	21-26590	137.00-140.00	Qbt 3	—	—	—	—	—	—	0.839 (J)	—	—	—	—	—	—
MD21-06-71352	21-26591	0.00-0.50	Fill	—	—	—	—	—	0.00083 (J)	1.8 (U)	—	—	—	—	—	—
MD21-06-71353	21-26591	1.50-2.50	Fill	—	—	—	—	—	0.00324	1.56 (U)	—	—	—	—	—	—
MD21-06-71354	21-26591	15.00-17.00	Qbt 3	—	—	—	—	—	—	1.51 (U)	—	—	—	—	—	—

Table 4.1-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Magnesium	Manganese	Mercury	Nickel	Nitrate	Perchlorate	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc
Soil/Fill Background Value^a				4610	671	0.1	15.4	na	na	1.52	1	915	0.73	1.82	39.6	48.8
Qbt 2,3,4 Background Value^a				1690	482	0.1	6.58	na	na	0.3	1	2770	1.1	2.4	17	63.5
Qbt 1v Background Value^a				780	408	0.1	2	na	na	0.3	1	6330	1.24	6.22	4.48	84.6
Qbt 1g, Qct, Qbo Background Value^a				739	189	0.1	2	na	na	0.3	1	4350	1.22	0.72	4.59	40
Industrial Soil Screening Levels^c				na	48,400	340^e	22,700	100,000	790^e	5680	5680	na	74.9	200^g	1140	100,000
Residential Soil Screening Levels^c				na	3590	23^e	1560	100,000	55^e	391	391	na	5.16	16^g	78.2	23,500
MD21-06-71355	21-26591	27.00-30.00	Qbt 3	—	—	—	—	—	—	1.5 (U)	—	—	—	—	—	—
MD21-06-71356	21-26591	30.00-35.00	Qbt 3	—	—	—	—	—	—	1.49 (U)	—	—	—	—	—	—
MD21-06-71361	21-26592	0.00-0.50	Fill	—	—	—	—	—	0.0401	1.73 (U)	—	—	—	—	—	—
MD21-06-71362	21-26592	1.50-4.00	Fill	—	—	—	—	—	0.0461	1.54 (U)	—	—	—	—	—	—
MD21-06-71363	21-26592	15.00-17.00	Qbt 3	—	—	—	—	—	0.00273	1.49 (U)	—	—	—	—	—	—
MD21-06-71364	21-26592	23.00-25.00	Qbt 3	—	—	—	—	—	0.006	1.49 (U)	—	—	—	—	—	—
MD21-06-71365	21-26592	33.00-35.00	Qbt 3	—	—	—	—	—	0.121	1.56 (U)	—	—	—	—	—	—
MD21-06-71388	21-26593	0.00-0.50	Fill	—	—	—	—	—	—	1.64 (U)	—	—	—	—	—	—
MD21-06-71389	21-26593	1.50-2.00	Fill	—	—	—	—	—	0.00164 (J)	1.68 (U)	—	—	—	—	—	—
MD21-06-71384	21-26593	3.00-7.00	Fill	—	1010	—	—	—	0.00921	—	—	—	—	2.53	—	—
MD21-06-71385	21-26593	15.00-17.00	Qbt 3	—	—	—	—	—	0.000956 (J)	1.48 (U)	—	—	—	—	—	—
MD21-06-71386	21-26593	21.00-23.00	Qbt 3	—	—	—	—	—	0.000824 (J)	1.58 (U)	—	—	—	—	—	—
MD21-06-71387	21-26593	33.00-35.00	Qbt 3	—	—	—	—	—	—	1.5 (U)	—	—	—	—	—	—
MD21-06-71393	21-26594	0.00-0.50	Fill	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71394	21-26594	1.50-3.00	Fill	—	—	—	—	—	0.000612 (J)	—	—	—	—	—	—	—
MD21-06-71395	21-26594	17.00-20.00	Qbt 3	—	—	—	—	—	—	1.55 (U)	—	—	—	—	—	—
MD21-06-71396	21-26594	25.00-27.00	Qbt 3	—	—	—	—	—	—	1.5 (U)	—	—	—	—	—	—
MD21-06-71397	21-26594	30.00-35.00	Qbt 3	—	—	—	—	—	—	1.55 (U)	—	—	—	—	—	—
MD21-06-71416	21-26595	0.00-0.50	Fill	—	—	—	—	—	—	1.74 (U)	—	—	—	—	—	—
MD21-06-71417	21-26595	1.50-2.00	Fill	—	916 (J)	—	—	—	0.00105 (J)	—	—	—	—	—	—	—
MD21-06-71418	21-26595	2.00-3.50	Fill	—	—	—	—	—	0.00207 (J)	1.57 (U)	—	—	—	—	—	—
MD21-06-71419	21-26595	15.00-17.00	Qbt 3	—	—	—	—	—	0.00122 (J)	1.51 (U)	—	—	—	—	—	—
MD21-06-71420	21-26595	23.00-25.00	Qbt 3	—	—	—	—	—	0.00112 (J)	1.5 (U)	—	—	—	—	—	—
MD21-06-71421	21-26595	33.00-35.00	Qbt 3	—	—	—	—	—	0.00122 (J)	1.53 (U)	—	—	—	—	—	—
MD21-06-71425	21-26596	0.00-0.50	Fill	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71426	21-26596	3.00-5.00	Fill	—	—	—	—	—	—	1.63 (U)	—	—	—	—	—	—
MD21-06-71427	21-26596	5.00-7.50	Qbt 3	—	—	—	—	—	—	0.685 (J)	—	—	—	—	—	—
MD21-06-71428	21-26596	17.00-20.00	Qbt 3	—	—	—	—	—	—	1.6 (U)	—	—	—	—	—	—

Table 4.1-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Magnesium	Manganese	Mercury	Nickel	Nitrate	Perchlorate	Selenium	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc
Soil/Fill Background Value^a				4610	671	0.1	15.4	na	na	1.52	1	915	0.73	1.82	39.6	48.8
Qbt 2,3,4 Background Value^a				1690	482	0.1	6.58	na	na	0.3	1	2770	1.1	2.4	17	63.5
Qbt 1v Background Value^a				780	408	0.1	2	na	na	0.3	1	6330	1.24	6.22	4.48	84.6
Qbt 1g, Qct, Qbo Background Value^a				739	189	0.1	2	na	na	0.3	1	4350	1.22	0.72	4.59	40
Industrial Soil Screening Levels^c				na	48,400	340^e	22,700	100,000	790^e	5680	5680	na	74.9	200^g	1140	100,000
Residential Soil Screening Levels^c				na	3590	23^e	1560	100,000	55^e	391	391	na	5.16	16^g	78.2	23,500
MD21-06-71429	21-26596	27.00-30.00	Qbt 3	—	—	—	—	—	—	1.56 (U)	—	—	—	—	—	—
MD21-06-71430	21-26596	32.00-35.00	Qbt 3	—	—	—	—	—	—	1.55 (U)	—	—	—	—	—	—
MD21-06-71448	21-26597	0.00-0.50	Fill	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71449	21-26597	1.50-3.00	Fill	—	—	—	—	—	—	1.57 (U)	—	—	—	—	—	—
MD21-06-71450	21-26597	12.00-15.00	Qbt 3	—	—	—	—	—	—	1.56 (U)	—	—	—	—	—	—
MD21-06-71451	21-26597	23.00-25.00	Qbt 3	—	—	—	—	—	0.000778 (J)	1.56 (U)	—	—	—	—	—	—
MD21-06-71452	21-26597	80.00-85.00	Qbt 3	—	—	—	—	—	0.000598 (J)	1.53 (U)	—	—	—	—	—	—
MD21-06-71457	21-26598	0.00-0.50	Fill	—	—	—	—	—	—	1.55 (U)	—	—	—	—	—	—
MD21-06-71458	21-26598	1.50-3.00	Fill	—	—	—	—	—	—	1.66 (U)	—	—	—	—	—	—
MD21-06-71459	21-26598	25.00-30.00	Qbt 3	—	—	—	—	—	—	1.52 (U)	—	—	—	—	—	—
MD21-06-71460	21-26598	50.00-55.00	Qbt 3	—	—	—	—	—	—	1.56 (U)	—	—	—	—	—	—
MD21-06-71461	21-26598	82.50-85.00	Qbt 3	—	—	—	—	—	—	1.49 (U)	—	—	—	—	—	—

Note: Units are mg/kg.

^a BVs from LANL 1998, 059730.

^b na = Not available.

^c SSLs from NMED 2006, 092513, unless otherwise indicated.

^d SSLs from EPA Region 6 (EPA 2005, 091002).

^e SSLs calculated using NMED parameters and the CDC Agency for Toxic Substances and Disease Registry minimal risk level.

^f A dash indicates that the analyte was not detected above the background value.

^g SSLs from EPA Region 9 (<http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf>)

**Table 4.1-2
Summary of VOCs, SVOCs, and PCBs Detected at
MDA A and DP Canyon Slope (2006 Investigation Report)**

Sample ID	Location ID	Depth (ft)	Media	Acenaphthene	Acetone	Anthracene	Aroclor-1254	Aroclor-1260	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ethylhexyl) phthalate
Industrial Soil Screening Levels^a				33,500	100,000	100,000	8.26	8.26	23.4	2.34	23.4	30,900^b	234	100,000^c	1370
Residential Soil Screening Levels^a				3730	28,100	22,000	1.12	1.12	6.21	0.621	6.21	2290^b	62.1	100,000^c	347
MD21-06-70892	21-01154	0.00-0.50	Soil	— ^d	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70900	21-02030	0.00-0.50	Soil	—	—	0.00814 (J)	—	—	—	—	—	—	—	—	—
MD21-06-70932	21-02042	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70924	21-02058	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70727	21-26480	0.00-0.50	Soil	—	—	0.00808 (J)	—	—	—	0.103	0.308 (J)	0.0797 (J)	—	—	—
MD21-06-70730	21-26480	36.00-38.50	Qbt 3	—	0.00284 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70729	21-26480	42.00-44.00	Qbt 3	—	0.00362 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70745	21-26481	0.00-0.50	Soil	—	—	—	—	0.0136 (J-)	—	—	—	—	—	—	—
MD21-06-70746	21-26481	25.00-27.00	Qbt 3	—	0.0112	—	—	—	—	—	—	—	—	—	0.148 (J)
MD21-06-70748	21-26481	40.50-42.00	Qbt 3	—	0.00843	—	—	—	—	—	—	—	—	—	—
MD21-06-70747	21-26481	43.00-45.00	Qbt 3	—	0.00808	—	—	—	—	—	—	—	—	—	—
MD21-06-70773	21-26482	0.00-0.50	Soil	—	—	—	0.0241 (J)	—	—	—	—	—	—	—	—
MD21-06-70774	21-26482	13.20-15.00	Qbt 3	—	0.00692	—	—	—	—	—	—	—	—	—	0.0726 (J)
MD21-06-70776	21-26482	19.00-22.00	Qbt 3	—	0.00564	—	—	—	—	—	—	—	—	—	—
MD21-06-70775	21-26482	30.00-32.00	Qbt 3	—	0.00902	—	—	—	—	—	—	—	—	—	—
MD21-06-70778	21-26482	47.30-49.00	Qbt 3	—	0.00957	—	—	—	—	—	—	—	—	—	—
MD21-06-70777	21-26482	49.00-50.00	Qbt 3	—	0.00434 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70819	21-26484	0.00-0.50	Soil	—	—	—	—	—	—	0.0348	0.199	—	0.0269 (J)	—	—
MD21-06-70820	21-26484	13.00-15.00	Qbt 3	—	0.00302 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70821	21-26484	43.00-45.00	Qbt 3	—	0.0033 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70837	21-26485	0.00-0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70838	21-26485	24.00-26.00	Qbt 3	—	0.00528 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70842	21-26485	28.00-30.00	Qbt 3	—	0.00387 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70840	21-26485	30.00-32.00	Qbt 3	—	0.00525 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70841	21-26485	32.00-34.00	Qbt 3	—	0.00334 (J)	—	—	—	—	—	—	—	—	—	—

Table 4.1-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Acenaphthene	Acetone	Anthracene	Aroclor-1254	Aroclor-1260	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ethylhexyl) phthalate
Industrial Soil Screening Levels^a				33,500	100,000	100,000	8.26	8.26	23.4	2.34	23.4	30,900^b	234	100,000^c	1370
Residential Soil Screening Levels^a				3730	28,100	22,000	1.12	1.12	6.21	0.621	6.21	2290^b	62.1	100,000^c	347
MD21-06-70839	21-26485	43.00–45.00	Qbt 3	—	0.00329 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70946	21-26486	0.00–0.50	Soil	—	—	—	—	—	0.0329 (J)	0.0237 (J)	0.0336 (J)	0.0877	0.0183 (J)	—	—
MD21-06-70954	21-26487	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70962	21-26488	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70970	21-26489	0.00–0.50	Soil	—	—	—	—	—	—	—	0.0631 (J)	—	—	—	0.102 (J)
MD21-06-70978	21-26490	0.00–0.50	Soil	0.0139 (J)	—	0.0274 (J)	—	—	0.0596	0.0477	0.0907	0.0944	—	—	—
MD21-06-70992	21-26491	0.00–0.50	Soil	—	—	—	—	—	—	—	0.21 (J)	—	—	—	—
MD21-06-70993	21-26491	1.50–2.00	Soil	—	—	—	—	—	—	—	—	—	—	0.496 (J)	—
MD21-06-71008	21-26495	0.00–0.50	Soil	—	—	—	—	—	—	0.0152 (J)	0.19 (J)	—	—	—	—
MD21-06-71293	21-26588	0.00–0.50	Fill	—	—	—	0.0206	0.138	—	0.0258 (J)	0.0439 (J)	—	—	—	—
MD21-06-71298	21-26588	110.00–112.00	Qbt 2	—	—	—	0.0033 (J-)	0.0015 (J-)	—	—	—	—	—	—	—
MD21-06-71300	21-26588	300.00–302.50	Qbt 1g	—	—	—	—	—	—	—	—	—	—	—	0.134 (J)
MD21-06-71320	21-26589	0.00–0.50	Soil	—	—	0.0105 (J)	—	0.0054	—	—	—	—	—	—	—
MD21-06-71324	21-26589	78.00–80.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71339	21-26590	27.00–30.00	Qbt 3	—	0.00715	—	—	—	—	—	—	—	—	—	—
MD21-06-71340	21-26590	45.00–50.00	Qbt 3	—	0.00414 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71352	21-26591	0.00–0.50	Fill	0.032 (J)	—	0.0506	—	0.0095 (J-)	0.109	0.0995	—	—	—	—	—
MD21-06-71354	21-26591	15.00–17.00	Qbt 3	—	0.00393 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71361	21-26592	0.00–0.50	Fill	0.0183 (J)	—	0.0257 (J)	0.0307 (J)	0.22	—	0.0777	0.0955	—	—	—	—
MD21-06-71362	21-26592	1.50–4.00	Fill	—	0.00458 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71388	21-26593	0.00–0.50	Fill	—	—	0.00895 (J)	0.0058	0.0084	—	0.0272 (J)	0.0432	0.0144 (J)	—	—	—
MD21-06-71389	21-26593	1.50–2.00	Fill	0.0345 (J)	—	—	—	0.0111	—	—	—	—	—	—	—
MD21-06-71384	21-26593	3.00–7.00	Fill	0.0734	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71393	21-26594	0.00–0.50	Fill	—	—	—	—	0.0063	—	—	—	—	—	—	—
MD21-06-71416	21-26595	0.00–0.50	Fill	—	—	0.00859 (J)	—	0.0124	—	0.0318 (J)	0.0523	0.0182 (J)	—	—	—
MD21-06-71425	21-26596	0.00–0.50	Fill	—	—	—	—	—	—	—	—	—	—	—	—

Table 4.1-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Acenaphthene	Acetone	Anthracene	Aroclor-1254	Aroclor-1260	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ethylhexyl) phthalate
Industrial Soil Screening Levels^a				33,500	100,000	100,000	8.26	8.26	23.4	2.34	23.4	30,900^b	234	100,000^c	1370
Residential Soil Screening Levels^a				3730	28,100	22,000	1.12	1.12	6.21	0.621	6.21	2290^b	62.1	100,000^c	347
MD21-06-71426	21-26596	3.00–5.00	Fill	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71427	21-26596	5.00–7.50	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71448	21-26597	0.00–0.50	Fill	—	—	—	—	0.0043	—	—	—	—	—	—	—
MD21-06-71449	21-26597	1.50–3.00	Fill	—	—	0.0757	—	0.0132	0.0685	0.178	0.206	—	—	—	—
MD21-06-71459	21-26598	25.00–30.00	Qbt 3	—	0.0159	—	—	—	—	—	—	—	—	—	—

Table 4.1-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Chrysene	Dichlorobenzene[1,4-]	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Isopropyltoluene[4-]	Methyl-2-pentanone[4-]	Methylene Chloride	Nitroaniline[2-]	Phenanthrene	Pyrene	Toluene
Industrial Soil Screening Levels^a				2310	103	24,400	26,500	23.4	389^e	7010	490	2000^c	20,500	30,900	252^f
Residential Soil Screening Levels^a				615	39.5	2290	2660	6.21	271^e	5510	182	180^c	1830	2290	252^f
MD21-06-70892	21-01154	0.00–0.50	Soil	—	—	0.0142 (J)	—	—	—	—	—	—	—	—	—
MD21-06-70900	21-02030	0.00–0.50	Soil	—	—	0.0159 (J)	—	—	—	—	—	—	—	0.0124 (J)	—
MD21-06-70932	21-02042	0.00–0.50	Soil	—	—	0.0256 (J)	—	—	—	—	—	—	0.0161 (J)	0.0256 (J)	—
MD21-06-70924	21-02058	0.00–0.50	Soil	—	—	0.0315 (J)	—	—	—	—	—	—	0.0217 (J)	0.0418	—
MD21-06-70727	21-26480	0.00–0.50	Soil	0.111	—	0.155	—	0.157	—	—	—	—	0.0637	0.185	0.00112
MD21-06-70730	21-26480	36.00–38.50	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70729	21-26480	42.00–44.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70745	21-26481	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70746	21-26481	25.00–27.00	Qbt 3	—	—	—	—	—	—	0.00146 (J)	—	—	—	—	—
MD21-06-70748	21-26481	40.50–42.00	Qbt 3	—	—	—	—	—	—	0.0015 (J)	—	—	—	—	—
MD21-06-70747	21-26481	43.00–45.00	Qbt 3	—	—	—	—	—	—	0.00117 (J)	—	—	—	—	—
MD21-06-70773	21-26482	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—	—	—	0.00111
MD21-06-70774	21-26482	13.20–15.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70776	21-26482	19.00–22.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70775	21-26482	30.00–32.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70778	21-26482	47.30–49.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70777	21-26482	49.00–50.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70819	21-26484	0.00–0.50	Soil	0.0399	—	0.0502	—	—	0.000298 (J)	—	—	—	0.023 (J)	0.0663	0.000546 (J)
MD21-06-70820	21-26484	13.00–15.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70821	21-26484	43.00–45.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70837	21-26485	0.00–0.50	Soil	0.0151 (J)	—	0.0133 (J)	—	—	—	—	—	—	—	0.0177 (J)	—
MD21-06-70838	21-26485	24.00–26.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70842	21-26485	28.00–30.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70840	21-26485	30.00–32.00	Qbt 3	—	—	—	—	—	—	0.00163 (J)	—	—	—	—	—
MD21-06-70841	21-26485	32.00–34.00	Qbt 3	—	—	—	—	—	—	0.00128 (J)	—	—	—	—	—

Table 4.1-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Chrysene	Dichlorobenzene[1,4-]	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Isopropyltoluene[4-]	Methyl-2-pentanone[4-]	Methylene Chloride	Nitroaniline[2-]	Phenanthrene	Pyrene	Toluene
Industrial Soil Screening Levels^a				2310	103	24,400	26,500	23.4	389^e	7010	490	2000^c	20,500	30,900	252^f
Residential Soil Screening Levels^a				615	39.5	2290	2660	6.21	271^e	5510	182	180^c	1830	2290	252^f
MD21-06-70839	21-26485	43.00–45.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70946	21-26486	0.00–0.50	Soil	0.0348	—	0.0579	—	0.0978	—	—	—	—	0.0357	0.0572	—
MD21-06-70954	21-26487	0.00–0.50	Soil	—	—	0.0102 (J)	—	—	—	—	—	—	0.0127 (J)	—	—
MD21-06-70962	21-26488	0.00–0.50	Soil	—	—	0.0175 (J)	—	—	—	—	—	0.0112 (J)	0.0141 (J)	—	—
MD21-06-70970	21-26489	0.00–0.50	Soil	—	—	0.0437	—	—	—	—	—	0.0266 (J)	—	—	—
MD21-06-70978	21-26490	0.00–0.50	Soil	0.0587	—	0.129	0.0128 (J)	0.104	—	—	—	0.111	0.14	—	—
MD21-06-70992	21-26491	0.00–0.50	Soil	—	—	0.0198 (J)	—	—	—	—	—	0.0143 (J)	0.0248 (J)	—	—
MD21-06-70993	21-26491	1.50–2.00	Soil	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71008	21-26495	0.00–0.50	Soil	—	—	0.0192 (J)	—	—	—	—	—	0.0107 (J)	0.0357	—	—
MD21-06-71293	21-26588	0.00–0.50	Fill	0.0243 (J)	—	0.0467	—	0.0129 (J)	—	—	—	0.0275 (J)	0.0527	—	—
MD21-06-71298	21-26588	110.00–112.00	Qbt 2	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71300	21-26588	300.00–302.50	Qbt 1g	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71320	21-26589	0.00–0.50	Soil	—	—	0.0185 (J)	—	—	—	—	—	—	—	0.0187 (J)	—
MD21-06-71324	21-26589	78.00–80.00	Qbt 3	—	—	—	—	—	—	—	—	0.176 (J)	—	—	—
MD21-06-71339	21-26590	27.00–30.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71340	21-26590	45.00–50.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71352	21-26591	0.00–0.50	Fill	0.119	0.000273 (J)	0.259	0.0248 (J)	—	0.00664	—	—	—	0.194	0.251	—
MD21-06-71354	21-26591	15.00–17.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71361	21-26592	0.00–0.50	Fill	0.0839	—	0.166	—	—	—	—	—	—	0.119	0.196	—
MD21-06-71362	21-26592	1.50–4.00	Fill	—	—	—	—	—	0.000559 (J)	—	—	—	—	—	0.000959 (J)
MD21-06-71388	21-26593	0.00–0.50	Fill	0.0343 (J)	—	0.0626	—	0.0123 (J)	—	—	—	—	0.041	0.06	0.000485 (J)
MD21-06-71389	21-26593	1.50–2.00	Fill	—	—	0.0138 (J)	—	—	—	—	—	—	—	0.0126 (J)	0.000688 (J)
MD21-06-71384	21-26593	3.00–7.00	Fill	—	—	—	—	—	—	—	0.00577 (J)	—	—	—	—
MD21-06-71393	21-26594	0.00–0.50	Fill	—	—	0.0246 (J)	—	—	—	—	—	—	0.0171 (J)	0.028 (J)	—
MD21-06-71416	21-26595	0.00–0.50	Fill	0.0355 (J)	—	0.068	—	—	—	—	—	—	0.0412	0.0719	—
MD21-06-71425	21-26596	0.00–0.50	Fill	—	—	—	—	—	—	—	—	—	—	—	0.00173

Table 4.1-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Chrysene	Dichlorobenzene[1,4-]	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Isopropyltoluene[4-]	Methyl-2-pentanone[4-]	Methylene Chloride	Nitroaniline[2-]	Phenanthrene	Pyrene	Toluene
Industrial Soil Screening Levels^a				2310	103	24,400	26,500	23.4	389^e	7010	490	2000^c	20,500	30,900	252^f
Residential Soil Screening Levels^a				615	39.5	2290	2660	6.21	271^e	5510	182	180^c	1830	2290	252^f
MD21-06-71426	21-26596	3.00–5.00	Fill	—	—	—	—	—	—	—	—	—	—	—	0.00239
MD21-06-71427	21-26596	5.00–7.50	Qbt 3	—	—	—	—	—	0.000582 (J)	—	—	—	—	—	0.00102 (J)
MD21-06-71448	21-26597	0.00–0.50	Fill	—	—	0.019 (J)	—	—	—	—	—	—	—	0.0145 (J)	—
MD21-06-71449	21-26597	1.50–3.00	Fill	0.0658	—	0.0983	—	—	—	—	—	—	0.055	0.127	—
MD21-06-71459	21-26598	25.00–30.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—

Notes: Data qualifiers are defined in Appendix A. Units are mg/kg.

^a SSLs from NMED 2006, 092513, unless otherwise indicated.

^b Pyrene used as a surrogate based on structural similarity.

^c SSLs from EPA Region 6 (EPA 2005, 091002).

^d — = Analyte was not detected.

^e Isopropylbenzene used as a surrogate based on structural similarity.

^f SSL is the saturation limit (not risk-based).

**Table 4.1-3
Summary of Dioxins/Furans Detected at MDA A (2006 Investigation Report)**

Sample ID	Location ID	Depth (ft)	Media	Heptachloro-dibenzodioxin [1,2,3,4,6,7,8-]	Heptachloro-dibenzodioxins (Total)	Heptachloro-dibenzofuran [1,2,3,4,6,7,8-]	Heptachloro-dibenzofuran [1,2,3,4,7,8,9-]	Heptachloro-dibenzofurans (Total)	Hexachloro-dibenzodioxin [1,2,3,4,7,8-]	Hexachloro-dibenzodioxin [1,2,3,6,7,8-]	Hexachloro-dibenzodioxin [1,2,3,7,8,9-]	Hexachloro-dibenzodioxins (Total)	Hexachloro-dibenzofuran [1,2,3,4,7,8-]	Hexachloro-dibenzodioxin [1,2,3,4,7,8-]	Hexachloro-dibenzodioxin [1,2,3,6,7,8-]	Hexachloro-dibenzofuran [1,2,3,6,7,8-]
Industrial Soil Screening Levels				na ^a	na	na	na	na	na	na	na	0.00031	na	na	na	na
Residential Soil Screening Levels				na	na	na	na	na	na	na	na	0	na	na	na	na
MD21-06-70727	21-26480	0.00–0.50	Soil	0.0000181	0.000032	3.98E-06 (J)	3.59E-07 (J)	8.15E-06 (J)	5.87E-07 (J)	9.97E-07 (J)	1.08E-06 (J)	8.51E-06	2.9E-07 (J)	5.87E-07 (J)	9.97E-07 (J)	2.63E-07 (J)
MD21-06-70728	21-26480	25.00–27.00	Qbt 3	— ^b	1.17E-07	—	1.05E-07 (J)	—	—	—	—	—	9.18E-08 (J)	—	—	7.23E-08 (J)
MD21-06-70730	21-26480	36.00–38.50	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70729	21-26480	42.00–44.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70745	21-26481	0.00–0.50	Soil	0.000092	0.00016	0.0000156 (J)	9.76E-07 (J)	0.0000426 (J)	8.32E-07 (J)	3.47E-06	1.36E-06 (J)	0.0000194	3.02E-06 (J)	8.32E-07 (J)	3.47E-06	1.27E-06 (J)
MD21-06-70746	21-26481	25.00–27.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70748	21-26481	40.50–42.00	Qbt 3	—	6.17E-07	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70747	21-26481	43.00–45.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70773	21-26482	0.00–0.50	Soil	9.05E-06	0.0000161	0.0000042 (J)	—	0.0000082 (J)	—	4.84E-07 (J)	3.05E-07 (J)	0.0000037	—	—	4.84E-07 (J)	2.33E-07 (J)
MD21-06-70775	21-26482	30.00–32.00	Qbt 3	2.78E-07 (J)	2.78E-07	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70777	21-26482	49.00–50.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70819	21-26484	0.00–0.50	Soil	0.000013	0.000027	2.81E-06 (J)	2.59E-07 (J)	0.0000073 (J)	1.79E-07 (J)	5.79E-07 (J)	4.03E-07 (J)	4.91E-06	3.69E-07 (J)	1.79E-07 (J)	5.79E-07 (J)	1.92E-07 (J)
MD21-06-70820	21-26484	13.00–15.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70822	21-26484	25.00–27.00	Qbt 3	—	2.03E-07	—	—	—	—	—	—	—	1.11E-07 (J)	—	—	—
MD21-06-70823	21-26484	35.00–37.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70821	21-26484	43.00–45.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70837	21-26485	0.00–0.50	Soil	9.05E-06	0.0000169	2.36E-06 (J)	2.43E-07 (J)	5.24E-06 (J)	1.77E-07 (J)	4.21E-07 (J)	4.53E-07 (J)	3.87E-06	—	1.77E-07 (J)	4.21E-07 (J)	1.63E-07 (J)
MD21-06-70838	21-26485	24.00–26.00	Qbt 3	—	4.97E-08	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70842	21-26485	28.00–30.00	Qbt 3	—	—	—	1.38E-07 (J)	—	—	—	—	—	—	—	—	—
MD21-06-70840	21-26485	30.00–32.00	Qbt 3	2.25E-07 (J)	3.58E-07	—	—	—	—	—	—	1.36E-07	—	—	—	—
MD21-06-70841	21-26485	32.00–34.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70839	21-26485	43.00–45.00	Qbt 3	—	6.48E-08	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71293	21-26588	0.00–0.50	Fill	0.0000339	0.000063	7.74E-06	0.0000011 (J)	0.0000237	4.9E-07 (J)	1.18E-06 (J)	8.9E-07 (J)	0.0000077	1.59E-06 (J)	4.9E-07 (J)	1.18E-06 (J)	4.6E-07 (J)

Table 4.1-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Heptachloro-dibenzodioxin [1,2,3,4,6,7,8-]	Heptachloro-dibenzodioxins (Total)	Heptachloro-dibenzofuran [1,2,3,4,6,7,8-]	Heptachloro-dibenzofuran [1,2,3,4,7,8,9-]	Heptachloro-dibenzofurans (Total)	Hexachloro-dibenzodioxin [1,2,3,4,7,8-]	Hexachloro-dibenzodioxin [1,2,3,6,7,8-]	Hexachloro-dibenzodioxin [1,2,3,7,8,9-]	Hexachloro-dibenzodioxins (Total)	Hexachloro-dibenzofuran [1,2,3,4,7,8-]	Hexachloro-dibenzodioxin [1,2,3,4,7,8-]	Hexachloro-dibenzodioxin [1,2,3,6,7,8-]	Hexachloro-dibenzofuran [1,2,3,6,7,8-]
Industrial Soil Screening Levels				na ^a	na	na	na	na	na	na	na	0.00031	na	na	na	na
Residential Soil Screening Levels				na	na	na	na	na	na	na	na	0	na	na	na	na
MD21-06-71294	21-26588	5.50–7.00	Fill	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71296	21-26588	25.00–27.50	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71301	21-26588	355.00–360.00	Qbo	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71320	21-26589	0.00–0.50	Soil	8.83E-06	0.0000186	1.96E-06 (J)	—	3.75E-06	—	3.6E-07 (J)	2.8E-07 (J)	2.77E-06	1.4E-07 (J)	—	3.6E-07 (J)	—
MD21-06-71321	21-26589	7.00–9.00	Soil	1.4E-07 (J)	1.40E-07	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71326	21-26589	138.00–140.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	2E-08 (J)
MD21-06-71337	21-26590	0.00–0.50	Fill	2.74E-06	5.12E-06	0.0000009 (J)	—	1.72E-06	—	—	—	9.60E-07	—	—	—	—
MD21-06-71338	21-26590	1.50–3.00	Fill	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71340	21-26590	45.00–50.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71352	21-26591	0.00–0.50	Fill	0.000423	0.000681	0.0000964 (J)	8.31E-06	0.000197	0.0000142	0.0000251	0.0000273	0.000182	5.95E-06	0.0000142	0.0000251	6.48E-06
MD21-06-71353	21-26591	1.50–2.50	Fill	1.75E-06 (J)	3.79E-06	—	—	1.15E-06	—	—	—	5.90E-07	—	—	—	—
MD21-06-71354	21-26591	15.00–17.00	Qbt 3	0.0000004 (J)	0.0000004	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71361	21-26592	0.00–0.50	Fill	0.0000199	0.0000343	6.85E-06 (J)	8.7E-07 (J)	0.0000124 (J)	6.1E-07 (J)	1.12E-06 (J)	0.0000012 (J)	7.89E-06	1.45E-06 (J)	6.1E-07 (J)	1.12E-06 (J)	0.0000007 (J)
MD21-06-71362	21-26592	1.50–4.00	Fill	0.0000006 (J)	1.25E-06	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71363	21-26592	15.00–17.00	Qbt 3	6.7E-07 (J)	6.70E-07	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71364	21-26592	23.00–25.00	Qbt 3	2.5E-07 (J)	2.50E-07	—	—	—	9E-08 (J)	2.5E-07 (J)	3.2E-07 (J)	0.0000008	—	9E-08 (J)	2.5E-07 (J)	—
MD21-06-71388	21-26593	0.00–0.50	Fill	9.42E-06	0.0000193	2.18E-06 (J)	1.6E-07 (J)	6.36E-06	2.5E-07 (J)	4.6E-07 (J)	—	3.16E-06	2.1E-07 (J)	2.5E-07 (J)	4.6E-07 (J)	1.3E-07 (J)
MD21-06-71389	21-26593	1.50–2.00	Fill	3.55E-06	7.78E-06	7.7E-07 (J)	—	1.79E-06	—	—	—	5.50E-07	—	—	—	—
MD21-06-71384	21-26593	3.00–7.00	Fill	8.6E-07 (J)	2.01E-06	0.0000004 (J)	—	8.80E-07	—	—	—	1.80E-07	—	—	—	—
MD21-06-71386	21-26593	21.00–23.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71393	21-26594	0.00–0.50	Fill	3.56E-06	6.87E-06	—	—	2.36E-06 (J)	2.2E-07 (J)	—	0.0000002 (J)	1.61E-06	—	2.2E-07 (J)	—	8E-08 (J)
MD21-06-71394	21-26594	1.50–3.00	Fill	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71395	21-26594	17.00–20.00	Qbt 3	0.0000155	0.0000213	—	1.46E-06 (J)	2.39E-06 (J)	—	1.01E-06 (J)	9.8E-07 (J)	5.89E-06	—	—	1.01E-06 (J)	1.2E-07 (J)
MD21-06-71396	21-26594	25.00–27.00	Qbt 3	3.2E-07 (J)	3.20E-07	—	—	—	—	—	1.1E-07 (J)	1.55E-06	—	—	—	—
MD21-06-71416	21-26595	0.00–0.50	Fill	4.38E-06	9.79E-06	1.21E-06 (J)	—	2.56E-06	—	—	—	1.61E-06	—	—	—	—
MD21-06-71417	21-26595	1.50–2.00	Fill	9.8E-07 (J)	2.23E-06	—	—	—	—	—	—	1.50E-07	—	—	—	—
MD21-06-71425	21-26596	0.00–0.50	Fill	1.94E-06 (J)	3.96E-06	—	—	2.28E-06 (J)	—	—	—	0.0000005	—	—	—	2.2E-07 (J)

Table 4.1-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Heptachloro-dibenzodioxin [1,2,3,4,6,7,8-]	Heptachloro-dibenzodioxins (Total)	Heptachloro-dibenzofuran [1,2,3,4,6,7,8-]	Heptachloro-dibenzofuran [1,2,3,4,7,8,9-]	Heptachloro-dibenzofurans (Total)	Hexachloro-dibenzodioxin [1,2,3,4,7,8-]	Hexachloro-dibenzodioxin [1,2,3,6,7,8-]	Hexachloro-dibenzodioxin [1,2,3,7,8,9-]	Hexachloro-dibenzodioxins (Total)	Hexachloro-dibenzofuran [1,2,3,4,7,8-]	Hexachloro-dibenzodioxin [1,2,3,4,7,8-]	Hexachloro-dibenzodioxin [1,2,3,6,7,8-]	Hexachloro-dibenzofuran [1,2,3,6,7,8-]
Industrial Soil Screening Levels				na ^a	na	na	na	na	na	na	na	0.00031	na	na	na	na
Residential Soil Screening Levels				na	na	na	na	na	na	na	na	0	na	na	na	na
MD21-06-71426	21-26596	3.00–5.00	Fill	0.0000005 (J)	0.0000005	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71427	21-26596	5.00–7.50	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71428	21-26596	17.00–20.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71429	21-26596	27.00–30.00	Qbt 3	8.7E-07 (J)	1.12E-06	—	—	—	—	—	—	—	1.8E-07 (J)	—	—	—
MD21-06-71430	21-26596	32.00–35.00	Qbt 3	—	—	—	—	—	—	—	—	—	3.2E-07 (J)	—	—	—
MD21-06-71448	21-26597	0.00–0.50	Fill	0.0000111	0.0000226	2.32E-06 (J)	—	5.52E-06	—	4.5E-07 (J)	0.0000004 (J)	3.08E-06	4.7E-07 (J)	—	4.5E-07 (J)	—
MD21-06-71449	21-26597	1.50–3.00	Fill	4.06E-06	0.0000075	1.01E-06 (J)	—	2.84E-06	—	1.9E-07 (J)	—	8.30E-07	1.6E-07 (J)	—	1.9E-07 (J)	8E-08 (J)
MD21-06-71450	21-26597	12.00–15.00	Qbt 3	0.0000006 (J)	0.0000006	2.1E-07 (J)	0.0000004 (J)	0.0000009	—	2.3E-07 (J)	2.4E-07 (J)	1.51E-06	8.4E-07 (J)	—	2.3E-07 (J)	3.9E-07 (J)
MD21-06-71451	21-26597	23.00–25.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71457	21-26598	0.00–0.50	Fill	5.46E-06	0.0000101	—	—	9.30E-07	—	—	3.5E-07 (J)	0.0000025	—	—	—	—
MD21-06-71458	21-26598	1.50–3.00	Fill	4.8E-07 (J)	9.20E-07	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71459	21-26598	25.00–30.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 4.1-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Hexachloro-dibenzofuran [1,2,3,7,8,9-]	Hexachloro-dibenzofuran [2,3,4,6,7,8-]	Hexachloro-dibenzofurans (Total)	Octachloro-dibenzodioxin [1,2,3,4,6,7,8,9-]	Octachloro-dibenzofuran [1,2,3,4,6,7,8,9-]	Pentachloro-dibenzodioxin [1,2,3,7,8-]	Pentachloro-dibenzodioxins (Total)	Pentachloro-dibenzofuran [1,2,3,7,8-]	Pentachloro-dibenzofuran [2,3,4,7,8-]	Pentachloro-dibenzofurans (Totals)	Tetrachloro-dibenzodioxin [2,3,7,8-]	Tetrachloro-dibenzodioxins (Total)	Tetrachloro-dibenzofuran [2,3,7,8-]	Tetrachloro-dibenzofurans (Total)
Industrial Soil Screening Levels				na	na	na	na	na	na	na	na	na	na	1.77E-05	na	na	na
Residential Soil Screening Levels				na	na	na	na	na	na	na	na	na	na	0	na	na	na
MD21-06-70727	21-26480	0.00–0.50	Soil	—	3.04E-07 (J)	4.38E-06 (J)	0.000135	7.16E-06 (J)	3.89E-07 (J)	1.72E-06	9.23E-08 (J)	1.95E-07 (J)	2.59E-06	—	1.14E-06	2.2E-07 (J)	3.06E-06
MD21-06-70728	21-26480	25.00–27.00	Qbt 3	—	—	—	2.76E-07 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70730	21-26480	36.00–38.50	Qbt 3	—	—	—	4.12E-07 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70729	21-26480	42.00–44.00	Qbt 3	—	—	—	2.22E-07 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70745	21-26481	0.00–0.50	Soil	1.15E-06 (J)	1.51E-06 (J)	0.0000406 (J)	0.00119	0.0000116	—	0.0000023	6.35E-07 (J)	2.11E-06 (J)	0.0000219	—	2.39E-06	1.25E-06	0.0000146
MD21-06-70746	21-26481	25.00–27.00	Qbt 3	—	—	—	7.34E-07 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70748	21-26481	40.50–42.00	Qbt 3	—	—	—	9.14E-06	—	—	—	—	—	—	—	—	—	—
MD21-06-70747	21-26481	43.00–45.00	Qbt 3	—	—	—	4.62E-07 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70773	21-26482	0.00–0.50	Soil	—	3.59E-07 (J)	6.14E-06 (J)	0.0000617	6.18E-06	—	—	—	5.41E-07 (J)	0.0000075	—	9.20E-07	—	0.0000049
MD21-06-70775	21-26482	30.00–32.00	Qbt 3	—	—	—	4.48E-07 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70777	21-26482	49.00–50.00	Qbt 3	—	—	—	0.0000015 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70819	21-26484	0.00–0.50	Soil	1.14E-07 (J)	2.27E-07 (J)	4.35E-06 (J)	0.000123	6.25E-06 (J)	—	9.11E-07	1.25E-07 (J)	2.62E-07 (J)	3.01E-06	—	1.95E-07	2.72E-07 (J)	0.0000025
MD21-06-70820	21-26484	13.00–15.00	Qbt 3	—	—	—	1.04E-06 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70822	21-26484	25.00–27.00	Qbt 3	—	—	—	6.67E-07 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70823	21-26484	35.00–37.00	Qbt 3	—	—	—	4.86E-07 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70821	21-26484	43.00–45.00	Qbt 3	—	—	—	4.59E-07 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-70837	21-26485	0.00–0.50	Soil	—	2.05E-07 (J)	2.83E-06 (J)	0.0000685	0.0000058 (J)	1.46E-07 (J)	9.24E-07	—	2.36E-07 (J)	2.39E-06	—	0.0000013	2.96E-07 (J)	3.75E-06
MD21-06-70838	21-26485	24.00–26.00	Qbt 3	—	—	—	3.22E-07 (J)	—	—	—	—	—	6.27E-08	—	—	—	—
MD21-06-70842	21-26485	28.00–30.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70840	21-26485	30.00–32.00	Qbt 3	—	—	—	9.2E-07 (J)	—	—	—	—	—	1.85E-07	—	—	—	—
MD21-06-70841	21-26485	32.00–34.00	Qbt 3	—	—	—	2.31E-07 (J)	—	—	—	—	—	7.29E-08	—	—	—	—
MD21-06-70839	21-26485	43.00–45.00	Qbt 3	—	—	—	3.15E-07 (J)	—	—	—	—	—	8.63E-08	—	—	—	—
MD21-06-71293	21-26588	0.00–0.50	Fill	—	5.3E-07 (J)	0.00001	0.000334	0.0000243	—	—	2.4E-07 (J)	8.4E-07 (J)	4.88E-06	—	2.50E-07	8.10E-07	0.0000024

Table 4.1-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Hexachloro-dibenzofuran [1,2,3,7,8,9-]	Hexachloro-dibenzofuran [2,3,4,6,7,8-]	Hexachloro-dibenzofurans (Total)	Octachloro-dibenzodioxin [1,2,3,4,6,7,8,9-]	Octachloro-dibenzofuran [1,2,3,4,6,7,8,9-]	Pentachloro-dibenzodioxin [1,2,3,7,8-]	Pentachloro-dibenzodioxins (Total)	Pentachloro-dibenzofuran [1,2,3,7,8-]	Pentachloro-dibenzofuran [2,3,4,7,8-]	Pentachloro-dibenzofurans (Totals)	Tetrachloro-dibenzodioxin [2,3,7,8-]	Tetrachloro-dibenzodioxins (Total)	Tetrachloro-dibenzofuran [2,3,7,8-]	Tetrachloro-dibenzofurans (Total)
Industrial Soil Screening Levels				na	na	na	na	na	na	na	na	na	na	1.77E-05	na	na	na
Residential Soil Screening Levels				na	na	na	na	na	na	na	na	na	na	0	na	na	na
MD21-06-71294	21-26588	5.50–7.00	Fill	—	—	—	1.39E-06 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71296	21-26588	25.00–27.50	Qbt 3	—	—	—	7.3E-07 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71301	21-26588	355.00–360.00	Qbo	—	—	—	2.7E-07 (J)	—	—	6.00E-08	—	—	—	—	—	—	—
MD21-06-71320	21-26589	0.00–0.50	Soil	—	1.4E-07 (J)	1.48E-06	0.0000816	5.09E-06 (J)	—	—	—	9E-08 (J)	1.12E-06	—	5.60E-07	1.8E-07 (J)	1.12E-06
MD21-06-71321	21-26589	7.00–9.00	Soil	—	—	—	1.21E-06 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71326	21-26589	138.00–140.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	1.3E-07 (J)	1.30E-07	—	—
MD21-06-71337	21-26590	0.00–0.50	Fill	—	—	1.13E-06	0.0000166	1.43E-06 (J)	—	—	—	—	5.30E-07	—	—	—	0.0000004
MD21-06-71338	21-26590	1.50–3.00	Fill	—	—	—	0.0000013 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71340	21-26590	45.00–50.00	Qbt 3	—	—	—	2.7E-07 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71352	21-26591	0.00–0.50	Fill	7.6E-07 (J)	6.22E-06	0.0000957	0.00356 (J)	0.000185	0.0000112	0.0000341	8.4E-07 (J)	1.36E-06 (J)	0.0000309	1.24E-06	0.0000047	4.8E-07 (J)	8.34E-06
MD21-06-71353	21-26591	1.50–2.50	Fill	—	—	1.70E-07	0.0000127 (J)	1.03E-06 (J)	—	—	—	—	2.70E-07	—	—	—	0.0000003
MD21-06-71354	21-26591	15.00–17.00	Qbt 3	—	—	—	2.67E-06 (J)	2.7E-07 (J)	—	—	—	—	—	—	—	—	—
MD21-06-71361	21-26592	0.00–0.50	Fill	—	5.4E-07 (J)	8.27E-06 (J)	0.000167 (J)	0.0000134	4.4E-07 (J)	7.10E-07	—	1.12E-06 (J)	7.59E-06	—	1.80E-07	9.20E-07	4.68E-06
MD21-06-71362	21-26592	1.50–4.00	Fill	—	—	—	5.25E-06 (J)	5.3E-07 (J)	—	—	—	—	1.60E-07	—	—	—	—
MD21-06-71363	21-26592	15.00–17.00	Qbt 3	—	—	—	0.000001 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71364	21-26592	23.00–25.00	Qbt 3	—	—	—	—	—	—	—	—	—	—	—	—	—	9.00E-08
MD21-06-71388	21-26593	0.00–0.50	Fill	—	1.6E-07 (J)	2.65E-06 (J)	0.0000965	7.65E-06	1.7E-07 (J)	5.60E-07	—	1.7E-07 (J)	1.13E-06	—	1.90E-07	3.3E-07 (J)	1.11E-06
MD21-06-71389	21-26593	1.50–2.00	Fill	—	—	—	0.0000225	1.38E-06 (J)	—	—	—	—	1.70E-07	—	—	6E-08 (J)	2.70E-07
MD21-06-71384	21-26593	3.00–7.00	Fill	—	—	—	7.16E-06 (J)	7.5E-07 (J)	—	—	—	—	5.60E-07	—	—	—	—
MD21-06-71386	21-26593	21.00–23.00	Qbt 3	—	—	—	6.2E-07 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71393	21-26594	0.00–0.50	Fill	—	—	1.31E-06 (J)	0.000029 (J)	2.08E-06 (J)	—	—	—	1.9E-07 (J)	2.16E-06	—	0.0000001	9E-08 (J)	0.0000011
MD21-06-71394	21-26594	1.50–3.00	Fill	—	—	—	3.08E-06 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71395	21-26594	17.00–20.00	Qbt 3	—	8E-08 (J)	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71396	21-26594	25.00–27.00	Qbt 3	—	—	—	—	—	—	0.0000033	—	—	1.60E-07	—	4.90E-07	—	—
MD21-06-71416	21-26595	0.00–0.50	Fill	—	—	1.32E-06	0.0000331	1.94E-06 (J)	—	—	—	—	1.14E-06	—	2.60E-07	3.3E-07 (J)	1.14E-06
MD21-06-71417	21-26595	1.50–2.00	Fill	—	—	—	8.02E-06 (J)	8.1E-07 (J)	—	—	—	—	6.20E-07	—	—	—	—
MD21-06-71425	21-26596	0.00–0.50	Fill	—	—	4.81E-06 (J)	0.0000159 (J)	1.52E-06 (J)	—	—	—	—	0.0000141	—	—	—	0.000003

Table 4.1-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Hexachloro-dibenzofuran [1,2,3,7,8,9-]	Hexachloro-dibenzofuran [2,3,4,6,7,8-]	Hexachloro-dibenzofurans (Total)	Octachloro-dibenzodioxin [1,2,3,4,6,7,8,9-]	Octachloro-dibenzofuran [1,2,3,4,6,7,8,9-]	Pentachloro-dibenzodioxin [1,2,3,7,8-]	Pentachloro-dibenzodioxins (Total)	Pentachloro-dibenzofuran [1,2,3,7,8-]	Pentachloro-dibenzofuran [2,3,4,7,8-]	Pentachloro-dibenzofurans (Totals)	Tetrachloro-dibenzodioxin [2,3,7,8-]	Tetrachloro-dibenzodioxins (Total)	Tetrachloro-dibenzofuran [2,3,7,8-]	Tetrachloro-dibenzofurans (Total)
Industrial Soil Screening Levels				na	na	na	na	na	na	na	na	na	na	1.77E-05	na	na	na
Residential Soil Screening Levels				na	na	na	na	na	na	na	na	na	na	0	na	na	na
MD21-06-71426	21-26596	3.00–5.00	Fill	—	—	—	4.47E-06 (J)	5.4E-07 (J)	—	—	—	—	9.80E-07	—	—	—	—
MD21-06-71427	21-26596	5.00–7.50	Qbt 3	—	—	—	1.07E-06 (J)	—	—	—	—	—	—	—	—	—	5.40E-07
MD21-06-71428	21-26596	17.00–20.00	Qbt 3	—	—	—	1.07E-06 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71429	21-26596	27.00–30.00	Qbt 3	—	—	1.80E-07	8.3E-07 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71430	21-26596	32.00–35.00	Qbt 3	—	—	3.20E-07	4.9E-07 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71448	21-26597	0.00–0.50	Fill	—	1.9E-07 (J)	2.99E-06	0.0000842	7.07E-06	8E-08 (J)	8.00E-08	—	1.56E-06	—	—	2.6E-07 (J)	8.60E-07	1.56E-06
MD21-06-71449	21-26597	1.50–3.00	Fill	—	7E-08 (J)	1.35E-06	0.0000297	3.87E-06 (J)	—	—	—	3.30E-07	—	—	—	7.00E-08	3.30E-07
MD21-06-71450	21-26597	12.00–15.00	Qbt 3	1.2E-07 (J)	0.0000002 (J)	2.24E-06	6.4E-07 (J)	—	—	1.90E-07	4.6E-07 (J)	0.000001	—	—	—	—	0.000001
MD21-06-71451	21-26597	23.00–25.00	Qbt 3	—	—	—	7E-08 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71457	21-26598	0.00–0.50	Fill	—	—	1.38E-06	0.0000307	1.39E-06 (J)	—	—	—	9.10E-07	—	—	—	—	9.10E-07
MD21-06-71458	21-26598	1.50–3.00	Fill	—	—	—	3.26E-06 (J)	—	—	—	—	—	—	—	—	—	—
MD21-06-71459	21-26598	25.00–30.00	Qbt 3	—	—	—	0.0000002 (J)	—	—	—	—	—	—	—	—	—	—

Notes: Data qualifiers are defined in Appendix A. Units are mg/kg.

^a na = Not available; SSLs for individual congeners and totals are not available, just for tetrachlorodibenzo-p-dioxin(2,3,7,8-).

^b — = Analyte was not detected.

**Table 4.1-4
Summary of Radionuclides Detected above
Background/Fallout Values at MDA A and DP Canyon Slope (2006 Investigation Report)**

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Plutonium-238	Plutonium-239	Strontium-90	Uranium-235
Soil Background Value				0.013^a	1.65^a	0.023^a	0.054^a	1.31^a	0.2
Qbt 2,3,4 Background Value				na^b	na	na	na	na	0.09
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	na	0.18
Industrial Screening Action Level^c				180	23	240	210	1900	87
Residential Screening Action Level^c				30	5.6	37	33	5.7	17
MD21-06-70892	21-01154	0.00-0.50	Soil	0.171	— ^d	0.0416	3.06 (J)	—	—
MD21-06-70893	21-01154	1.50-2.00	Soil	—	—	—	0.0339 (J)	—	—
MD21-06-70908	21-01290	0.00-0.50	Soil	0.168	—	0.032	1.78 (J)	—	—
MD21-06-70909	21-01290	1.50-2.00	Soil	—	—	—	—	0.113	—
MD21-06-70900	21-02030	0.00-0.50	Soil	0.347	—	0.0544	10.2 (J)	—	—
MD21-06-70901	21-02030	1.50-2.00	Soil	—	—	—	0.142 (J)	0.127	—
MD21-06-70932	21-02042	0.00-0.50	Soil	0.154	—	—	4.04 (J)	—	—
MD21-06-70933	21-02042	1.50-2.00	Soil	—	—	—	0.141 (J)	—	—
MD21-06-70924	21-02058	0.00-0.50	Soil	0.287	—	0.0242	2.1 (J)	—	—
MD21-06-70925	21-02058	1.50-2.00	Soil	—	—	—	—	0.133	—
MD21-06-70916	21-02586	0.00-0.50	Soil	—	—	—	2.69 (J)	—	—
MD21-06-70917	21-02586	1.50-2.00	Soil	—	—	—	0.101 (J)	0.262	—
MD21-06-70727	21-26480	0.00-0.50	Soil	0.213	—	0.0381	4.45	—	—
MD21-06-70745	21-26481	0.00-0.50	Soil	0.115	—	—	1.13	—	—
MD21-06-70773	21-26482	0.00-0.50	Soil	—	—	—	0.307	—	—
MD21-06-70819	21-26484	0.00-0.50	Soil	0.429	—	0.0528	0.707	—	—
MD21-06-70837	21-26485	0.00-0.50	Soil	0.273	—	0.0561	8.67	—	—
MD21-06-70838	21-26485	24.00-26.00	Qbt 3	—	—	—	—	—	0.0961
MD21-06-70946	21-26486	0.00-0.50	Soil	0.445	—	0.0927	16.6	—	—
MD21-06-70947	21-26486	1.50-2.00	Soil	0.0374	—	—	1.41	—	—
MD21-06-70954	21-26487	0.00-0.50	Soil	0.242	—	0.047	9.21	—	—
MD21-06-70955	21-26487	1.50-2.00	Soil	—	—	—	0.13	—	—
MD21-06-70962	21-26488	0.00-0.50	Soil	0.827	—	0.105	14.7	—	—
MD21-06-70963	21-26488	1.50-2.00	Soil	—	—	—	0.091	1.74	—
MD21-06-70970	21-26489	0.00-0.50	Soil	0.856	—	0.0908	16	2.01	—
MD21-06-70971	21-26489	1.50-2.00	Soil	—	—	—	0.0543	—	—

Table 4.1-4 (continued)

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Plutonium-238	Plutonium-239	Strontium-90	Uranium-235	
Soil Background Value				0.013^a	1.65^a	0.023^a	0.054^a	1.31^a	0.2	0.013^a
Qbt 2,3,4 Background Value				na^b	na	na	na	0.09	na^b	
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	0.18	na	
Industrial Screening Action Level^c				180	23	240	210	1900	87	180
Residential Screening Action Level^c				30	5.6	37	33	5.7	17	30
MD21-06-70978	21-26490	0.00-0.50	Soil	0.131	—	—	0.744	—	—	
MD21-06-70979	21-26490	1.50-2.00	Soil	—	—	—	0.176	—	—	
MD21-06-70992	21-26491	0.00-0.50	Soil	0.351	—	—	2.14	—	—	
MD21-06-70996	21-26492	0.00-0.50	Soil	0.051	—	—	0.97	—	—	
MD21-06-71004	21-26494	0.00-0.50	Soil	0.039	—	—	0.831	—	—	
MD21-06-71005	21-26494	1.50-2.00	Soil	—	—	—	0.0322	—	—	
MD21-06-71008	21-26495	0.00-0.50	Soil	0.417	—	0.0437	4.44	—	—	
MD21-06-71009	21-26495	1.50-2.00	Soil	—	—	—	0.132	—	—	
MD21-06-71293	21-26588	0.00-0.50	Fill	—	—	—	0.181	—	—	
MD21-06-71300	21-26588	300.00-302.50	Qbt 1g	—	—	—	—	—	0.183 (J+)	
MD21-06-71320	21-26589	0.00-0.50	Soil	0.275	—	—	1.68	—	—	
MD21-06-71326	21-26589	138.00-140.00	Qbt 3	—	0.709	—	—	—	—	
MD21-06-71337	21-26590	0.00-0.50	Fill	0.0482	—	—	0.583	—	—	
MD21-06-71353	21-26591	1.50-2.50	Fill	0.0663	0.0653	—	1.53	—	—	
MD21-06-71361	21-26592	0.00-0.50	Fill	0.0418	—	—	0.609	—	—	
MD21-06-71362	21-26592	1.50-4.00	Fill	0.107	—	—	4.19	—	—	
MD21-06-71389	21-26593	1.50-2.00	Fill	—	—	0.047	5.5	—	—	
MD21-06-71393	21-26594	0.00-0.50	Fill	—	—	1.81	0.162	—	—	
MD21-06-71394	21-26594	1.50-3.00	Fill	—	—	—	0.25	—	—	
MD21-06-71396	21-26594	25.00-27.00	Qbt 3	—	—	1.43	0.0499	—	—	
MD21-06-71416	21-26595	0.00-0.50	Fill	—	—	—	0.0685	—	—	
MD21-06-71417	21-26595	1.50-2.00	Fill	0.142	—	—	2.71	—	—	
MD21-06-71425	21-26596	0.00-0.50	Fill	0.0294	—	—	2.57	—	—	
MD21-06-71426	21-26596	3.00-5.00	Fill	—	—	—	0.158	—	—	
MD21-06-71428	21-26596	17.00-20.00	Qbt 3	—	—	—	—	—	0.0934	
MD21-06-71449	21-26597	1.50-3.00	Fill	0.238	—	0.0473	9.22	—	—	
MD21-06-71450	21-26597	12.00-15.00	Qbt 3	—	—	—	—	—	0.107	
MD21-06-71451	21-26597	23.00-25.00	Qbt 3	—	—	—	—	—	0.113	
MD21-06-71452	21-26597	80.00-85.00	Qbt 3	—	—	—	—	—	0.104	
MD21-06-71457	21-26598	0.00-0.50	Fill	0.159 (J-)	—	—	1.52	—	—	

Table 4.1-4 (continued)

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Plutonium-238	Plutonium-239	Strontium-90	Uranium-235
Soil Background Value			0.013^a	1.65^a	0.023^a	0.054^a	1.31^a	0.2	0.013^a
Qbt 2,3,4 Background Value			na^b	na	na	na	na	0.09	na^b
Qbt 1g, Qct, Qbo Background Value			na	na	na	na	na	0.18	na
Industrial Screening Action Level^c			180	23	240	210	1900	87	180
Residential Screening Action Level^c			30	5.6	37	33	5.7	17	30
MD21-06-71458	21-26598	1.50-3.00	Fill	—	—	—	0.0452	—	—

Notes: Data qualifiers are defined in Appendix A. Background values from LANL 1998, 059730. Units are pCi/L.

^a Fallout value, applies only to samples collected from 0-0.5 ft.

^b na = Not available.

^c SALs from LANL 2005, 088493.

^d — = Analyte was not detected or not detected above the background or fallout values.

**Table 4.1-5
Summary of VOCs and Tritium Detected in Pore Gas at MDA A (2006 Investigation Report)**

Sample ID	Location ID	Depth	Acetone	Benzene	Bromodichloromethane	Butanol[1-]	Butanone[2-]	Carbon disulfide	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	Dichlorobenzene [1,4-]	Dichlorodifluoromethane	Dichloroethane[1,1-]	Dichloroethane[1,2-]	Dichloroethene[1,1-]	Dichloropropane[1,2-]	Ethanol	Ethylbenzene	Ethyltoluene[4-]	Hexane	Hexanone[2-]	Methanol	Methyl-2-pentanone[4-]	Methylene chloride
MD21-06-70736	21-26480	48.00–49.00	120	— ^a	—	—	—	—	—	—	12	—	—	5.1	—	—	—	—	—	—	—	11	—	—	—	—
MD21-06-70737	21-26480	36.00–38.50	120	4.4	—	—	16	—	1.8	—	11	—	—	7.5	1.7	1.8	—	0.94	—	1.6	—	—	1.8	—	0	—
MD21-06-70738	21-26480	25.00–27.00	110	4.8	—	—	10	—	2	—	12	—	—	9.2	1.8	2.2	—	1.5	—	1.9	2.2	—	—	—	2	—
MD21-06-70754	21-26481	45.00–46.00	290	5.9	—	—	35	—	—	3.4	29	—	—	41	7.7	5	—	—	—	—	—	—	—	—	—	3.4
MD21-06-70755	21-26481	25.00–27.00	60	—	—	—	—	—	—	—	11	—	—	21	—	—	14	—	—	—	—	—	—	—	—	—
MD21-06-70782	21-26482	30.00–32.00	63	—	—	—	7.4	—	—	—	8.8	—	—	—	—	6	—	—	—	—	—	—	—	—	—	—
MD21-06-70783	21-26482	19.00–22.00	53	—	—	—	3.1	—	—	—	7.4	—	—	—	—	7.1	28	12	—	—	—	—	—	—	—	—
MD21-06-70784	21-26482	13.20–15.00	100	—	—	—	—	—	—	—	—	—	—	—	—	—	6.8	—	—	—	—	—	—	—	—	—
MD21-06-70800	21-26482	40.00–41.00	520	—	6.7	—	16	—	—	—	10	—	—	—	2.8	7.6	3.1	—	—	—	—	—	—	—	—	6.2
MD21-06-70828	21-26484	48.00–49.00	680	26	—	0	73	—	—	—	—	—	—	—	4	10	—	—	41	7.1	5.4	34	—	0	—	—
MD21-06-70829	21-26484	35.00–37.00	—	—	—	—	3.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70830	21-26484	25.00–27.00	—	—	—	—	4.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70831	21-26484	13.00–15.00	0	0.69	—	—	5.8	—	—	—	—	—	—	1	—	0.88	—	—	—	—	—	—	—	—	—	—
MD21-06-70846	21-26485	48.00–49.00	62	—	—	—	7.6	24	—	—	23	—	—	10	—	—	—	—	—	—	—	9.1	—	—	—	—
MD21-06-70847	21-26485	32.00–34.00	0	1.5	—	—	6.5	—	2.7	—	16	—	—	16	1.5	1.3	—	—	—	—	—	—	—	—	—	—
MD21-06-70848	21-26485	30.00–32.00	0	1.7	—	—	6	—	2.7	—	20	—	—	25	1.9	1.5	—	—	—	1	—	—	—	—	—	—
MD21-06-70849	21-26485	28.00–30.00	0	2.9	—	—	7	—	2.9	—	22	—	—	25	2.4	2.9	—	1.3	—	2.3	3	—	—	—	0	1.1
MD21-06-70850	21-26485	24.00–26.00	31	—	—	—	4.5	11	—	—	14	—	—	16	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71304	21-26588	359.00–360.00	50	1.4	—	—	6	15	8.9	—	3.1	—	—	7.7	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71305	21-26588	300.00–302.00	220	7.9	—	—	24	4.2	12	—	9.2	0.97	—	25	1.4	—	—	—	—	—	2.6	—	—	—	0	—
MD21-06-71306	21-26588	200.00–202.50	59	3.4	1.7	—	6.2	11	12	—	12	—	—	18	1.8	—	—	—	—	1.4	—	—	—	—	—	—
MD21-06-71307	21-26588	110.00–112.50	26	2.7	1.7	—	3.2	7.3	5	—	14	—	—	20	2.1	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71308	21-26588	62.50–65.00	63	4.8	2.2	—	10	10	5.8	—	62	—	—	160	11	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71309	21-26588	25.00–27.50	46	—	—	—	—	—	—	—	59	—	—	440	13	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71310	21-26588	15.00–17.50	60	4.6	—	—	—	—	—	—	38	—	—	320	7.4	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71311	21-26588	5.50–7.00	34	2.5	—	—	6.5	6.5	5.5	—	8.5	—	—	82	1.4	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71329	21-26589	139.00–140.00	56	1.7	—	—	6.5	—	0	—	22	—	—	9.4	—	—	—	—	—	—	—	—	—	—	—	—

Table 4.1-5 (continued)

Sample ID	Location ID	Depth	Acetone	Benzene	Bromodichloromethane	Butanol[1-]	Butanone[2-]	Carbon disulfide	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	Dichlorobenzene-[1,4-]	Dichlorodifluoromethane	Dichloroethane[1,1-]	Dichloroethane[1,2-]	Dichloroethene[1,1-]	Dichloropropane[1,2-]	Ethanol	Ethylbenzene	Ethyltoluene[4-]	Hexane	Hexanone[2-]	Methanol	Methyl-2-pentanone[4-]	Methylene chloride
MD21-06-71330	21-26589	92.00–94.00	180	7.3	—	—	24	—	0	—	13	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71331	21-26589	78.00–80.00	140	8	—	—	72	—	0	—	12	—	—	0	—	—	—	—	—	1.3	—	—	—	—	0	—
MD21-06-71332	21-26589	47.00–52.00	170	5.3	—	—	—	—	—	—	—	—	—	5.8	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71333	21-26590	139.00–140.00	98	0.9	—	—	7.5	—	31	—	21	0.92	—	9.1	—	—	—	—	—	1.6	—	—	—	—	—	0.86
MD21-06-71334	21-26590	100.00–102.00	290	10	—	—	68	3.4	0	—	11	—	—	11	—	—	—	—	—	—	—	—	2.5	—	0	—
MD21-06-71335	21-26590	75.00–77.00	330	11	—	—	46	—	0	—	9.9	—	—	12	—	—	—	—	—	—	—	—	—	—	0	—
MD21-06-71336	21-26590	45.00–50.00	96	3.4	—	—	21	21	0	—	4.6	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71372	21-26591	34.00–35.00	89	2.5	—	—	13	3.7	1.3	—	20	—	—	64	3.4	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71373	21-26591	27.00–30.00	210	6.9	—	—	22	—	—	—	13	—	—	65	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71374	21-26591	15.00–17.00	130	11	—	—	22	—	2.5	—	27	—	—	150	4.6	—	—	—	—	1.6	3.2	—	—	—	0	—
MD21-06-71375	21-26591	1.50–2.50	93	5.8	—	—	13	—	1.5	—	22	—	—	120	3.5	—	—	—	—	—	2	—	—	—	0	—
MD21-06-71376	21-26592	34.00–35.00	130	2.9	—	—	18	—	—	—	3.3	—	—	4.9	—	—	—	—	—	0.96	—	—	—	—	—	—
MD21-06-71377	21-26592	23.00–25.00	320	11	—	—	37	—	—	—	7.3	—	—	9.3	0.86	—	—	—	—	0.87	—	—	1.9	—	2.8	—
MD21-06-71378	21-26592	15.00–17.00	100	5.5	—	—	13	—	—	—	6.5	—	—	9.4	—	—	—	—	—	—	—	—	—	—	0	—
MD21-06-71379	21-26592	1.50–4.00	28	4.4	—	—	—	4.3	—	—	4.2	—	2.2	6.6	—	—	—	—	—	1.8	8	—	—	—	—	—
MD21-06-71404	21-26593	34.00–35.00	170	6.4	—	—	28	5.3	1.3	—	13	—	—	14	1.8	—	—	—	—	4.3	11	—	—	—	0	—
MD21-06-71405	21-26593	20.00–22.00	80	4.3	—	—	4.6	—	2	—	21	—	—	28	2.8	—	—	—	—	3	3.3	—	—	—	0	—
MD21-06-71406	21-26593	15.00–17.00	45	1.5	—	—	4.3	—	1.7	—	18	—	—	26	2.4	—	—	—	—	1.4	—	—	—	—	—	—
MD21-06-71407	21-26593	3.00–4.00	53	4.1	—	—	—	6.7	—	—	4.3	—	—	10	—	—	—	—	—	2.1	4.1	—	—	—	—	—
MD21-06-71408	21-26594	34.00–35.00	50	0.68	—	—	—	4.6	1.8	—	6.3	1	—	6.1	—	—	—	—	—	—	8.4	—	—	—	—	—
MD21-06-71409	21-26594	25.00–27.00	57	2.3	—	—	3.9	9.1	2.7	—	13	—	—	12	1.5	—	—	—	—	—	2	—	—	—	—	—
MD21-06-71410	21-26594	17.00–20.00	35	1.5	—	—	5.4	—	2.7	—	12	—	—	10	1.3	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71411	21-26594	1.50–3.00	110	4.8	—	—	8.1	14	1.6	—	4.4	—	—	5	—	—	—	4.2	—	1.3	4.3	—	—	—	—	—
MD21-06-71436	21-26595	34.00–35.00	160	2.5	—	—	24	—	—	—	1.4	1.5	—	4	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71437	21-26595	23.00–25.00	110	12	—	—	13	8.5	3.5	—	11	—	2.8	9.2	2.4	1.7	—	39	—	11	20	—	—	—	0	—
MD21-06-71438	21-26595	15.00–17.00	61	5.3	—	—	7	—	1.6	—	6.1	—	1.9	7.1	—	—	—	—	—	3.7	8.6	—	—	—	0	—
MD21-06-71439	21-26595	2.00–4.00	200	8.2	—	—	20	—	—	—	—	1.5	—	3.9	—	—	—	—	—	—	—	—	—	—	0	—

Table 4.1-5 (continued)

Sample ID	Location ID	Depth	Acetone	Benzene	Bromodichloromethane	Butanol[1-]	Butanone[2-]	Carbon disulfide	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	Dichlorobenzene-[1,4-]	Dichlorodifluoromethane	Dichloroethane[1,1-]	Dichloroethane[1,2-]	Dichloroethene[1,1-]	Dichloropropane[1,2-]	Ethanol	Ethylbenzene	Ethyltoluene[4-]	Hexane	Hexanone[2-]	Methanol	Methyl-2-pentanone[4-]	Methylene chloride
MD21-06-71440	21-26596	34.00-35.00	68	1.4	—	—	—	—	—	—	—	—	—	3.2	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71441	21-26596	27.00-30.00	110	8.2	—	—	17	33	—	—	1	—	—	3.4	—	—	—	—	—	1.1	2.8	—	—	—	0	—
MD21-06-71442	21-26596	17.00-20.00	90	4.6	—	—	12	4.4	—	—	—	0.82	—	3.5	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71443	21-26596	5.00-7.00	130	8.9	—	—	17	5	—	—	—	1.1	—	—	—	—	—	—	—	1.4	3.6	—	—	—	—	—
MD21-06-71468	21-26597	84.00-85.00	160	0.96	—	—	9.6	—	8.1	—	8.1	—	—	23	—	3.8	—	—	—	—	—	—	—	—	—	—
MD21-06-71469	21-26597	23.00-25.00	58	3.4	—	—	7.8	—	0	—	3.9	—	—	100	—	—	—	—	—	0.99	—	—	—	—	—	—
MD21-06-71470	21-26597	12.00-15.00	29	2.9	—	—	6.6	4.9	0	—	5.1	—	—	92	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71471	21-26597	1.50-3.00	24	3.5	—	—	5.1	—	0	—	1.3	—	—	42	—	—	—	—	—	—	2.6	—	—	—	—	—
MD21-06-71472	21-26598	84.00-85.00	56	3.6	—	—	3.4	—	10	—	7	—	—	12	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71473	21-26598	50.00-51.00	51	0.79	—	—	5.7	21	9.5	—	5.1	—	—	17	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71474	21-26598	25.00-30.00	41	1.7	—	—	6.4	13	1.6	—	1.5	—	—	11	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71475	21-26598	1.50-3.00	27	2.3	—	—	7.7	—	—	—	—	—	—	5	—	—	—	—	—	—	2.2	—	—	—	—	—
MD21-06-73141	21-26480	42.00-44.00	110	—	—	—	—	—	—	—	—	—	—	11	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-73144	21-26481	40.50-42.00	420	—	—	—	—	—	—	—	—	—	—	60	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-73147	21-26482	49.00-50.00	440	—	—	—	—	36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-73150	21-26484	43.00-45.00	280	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-73507	21-26590	27.00-30.00	79	2.9	—	—	11	25	0	—	4.1	—	—	8	—	—	—	—	—	0.97	—	—	—	—	—	—
MD21-06-73508	21-26590	1.50-3.00	21	2.3	—	—	4.2	—	—	—	—	—	—	3.3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-73509	21-26589	7.00-9.00	23	3.2	—	—	5.3	—	—	—	—	—	—	3.1	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-73510	21-26589	17.00-19.00	30	3	—	—	4.6	9.4	2.3	—	2	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-73722	21-26485	43.00-45.00	24	5.4	—	—	—	—	—	—	18	—	—	53	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70736	21-26480	48.00-49.00	120	—	—	—	—	—	—	—	12	—	—	5.1	—	—	—	—	—	—	—	11	—	—	—	—
MD21-06-70737	21-26480	36.00-38.50	120	4.4	—	—	16	—	1.8	—	11	—	—	7.5	1.7	1.8	—	0.94	—	1.6	—	—	1.8	—	0	—
MD21-06-70738	21-26480	25.00-27.00	110	4.8	—	—	10	—	2	—	12	—	—	9.2	1.8	2.2	—	1.5	—	1.9	2.2	—	—	—	2	—
MD21-06-70754	21-26481	45.00-46.00	290	5.9	—	—	35	—	—	3.4	29	—	—	41	7.7	5	—	—	—	—	—	—	—	—	—	3.4
MD21-06-70755	21-26481	25.00-27.00	60	—	—	—	—	—	—	—	11	—	—	21	—	—	14	—	—	—	—	—	—	—	—	—
MD21-06-70782	21-26482	30.00-32.00	63	—	—	—	7.4	—	—	—	8.8	—	—	—	—	6	—	—	—	—	—	—	—	—	—	—

Table 4.1-5 (continued)

Sample ID	Location ID	Depth	Acetone	Benzene	Bromodichloromethane	Butanol[1-]	Butanone[2-]	Carbon disulfide	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	Dichlorobenzene-[1,4-]	Dichlorodifluoromethane	Dichloroethane[1,1-]	Dichloroethane[1,2-]	Dichloroethene[1,1-]	Dichloropropane[1,2-]	Ethanol	Ethylbenzene	Ethyltoluene[4-]	Hexane	Hexanone[2-]	Methanol	Methyl-2-pentanone[4-]	Methylene chloride
MD21-06-70783	21-26482	19.00–22.00	53	—	—	—	3.1	—	—	—	7.4	—	—	—	7.1	28	12	—	—	—	—	—	—	—	—	—
MD21-06-70784	21-26482	13.20–15.00	100	—	—	—	—	—	—	—	—	—	—	—	—	6.8	—	—	—	—	—	—	—	—	—	—
MD21-06-70800	21-26482	40.00–41.00	520	—	6.7	—	16	—	—	—	10	—	—	—	2.8	7.6	3.1	—	—	—	—	—	—	—	—	6.2
MD21-06-70828	21-26484	48.00–49.00	680	26	—	0	73	—	—	—	—	—	—	—	4	10	—	—	41	7.1	5.4	34	—	0	—	—
MD21-06-70829	21-26484	35.00–37.00	—	—	—	—	3.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70830	21-26484	25.00–27.00	—	—	—	—	4.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-70831	21-26484	13.00–15.00	0	0.69	—	—	5.8	—	—	—	—	—	—	1	—	0.88	—	—	—	—	—	—	—	—	—	—
MD21-06-70846	21-26485	48.00–49.00	62	—	—	—	7.6	24	—	—	23	—	—	10	—	—	—	—	—	—	—	9.1	—	—	—	—
MD21-06-70847	21-26485	32.00–34.00	0	1.5	—	—	6.5	—	2.7	—	16	—	—	16	1.5	1.3	—	—	—	—	—	—	—	—	—	—
MD21-06-70848	21-26485	30.00–32.00	0	1.7	—	—	6	—	2.7	—	20	—	—	25	1.9	1.5	—	—	—	1	—	—	—	—	—	—
MD21-06-70849	21-26485	28.00–30.00	0	2.9	—	—	7	—	2.9	—	22	—	—	25	2.4	2.9	—	1.3	—	2.3	3	—	—	—	0	1.1
MD21-06-70850	21-26485	24.00–26.00	31	—	—	—	4.5	11	—	—	14	—	—	16	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71304	21-26588	359.00–360.00	50	1.4	—	—	6	15	8.9	—	3.1	—	—	7.7	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71305	21-26588	300.00–302.00	220	7.9	—	—	24	4.2	12	—	9.2	0.97	—	25	1.4	—	—	—	—	—	2.6	—	—	—	0	—
MD21-06-71306	21-26588	200.00–202.50	59	3.4	1.7	—	6.2	11	12	—	12	—	—	18	1.8	—	—	—	—	1.4	—	—	—	—	—	—
MD21-06-71307	21-26588	110.00–112.50	26	2.7	1.7	—	3.2	7.3	5	—	14	—	—	20	2.1	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71308	21-26588	62.50–65.00	63	4.8	2.2	—	10	10	5.8	—	62	—	—	160	11	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71309	21-26588	25.00–27.50	46	—	—	—	—	—	—	—	59	—	—	440	13	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71310	21-26588	15.00–17.50	60	4.6	—	—	—	—	—	—	38	—	—	320	7.4	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71311	21-26588	5.50–7.00	34	2.5	—	—	6.5	6.5	5.5	—	8.5	—	—	82	1.4	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71329	21-26589	139.00–140.00	56	1.7	—	—	6.5	—	0	—	22	—	—	9.4	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71330	21-26589	92.00–94.00	180	7.3	—	—	24	—	0	—	13	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71331	21-26589	78.00–80.00	140	8	—	—	72	—	0	—	12	—	—	0	—	—	—	—	—	1.3	—	—	—	—	0	—
MD21-06-71332	21-26589	47.00–52.00	170	5.3	—	—	—	—	—	—	—	—	—	5.8	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71333	21-26590	139.00–140.00	98	0.9	—	—	7.5	—	31	—	21	0.92	—	9.1	—	—	—	—	—	1.6	—	—	—	—	—	0.86
MD21-06-71334	21-26590	100.00–102.00	290	10	—	—	68	3.4	0	—	11	—	—	11	—	—	—	—	—	—	—	—	2.5	—	0	—
MD21-06-71335	21-26590	75.00–77.00	330	11	—	—	46	—	0	—	9.9	—	—	12	—	—	—	—	—	—	—	—	—	—	0	—

Table 4.1-5 (continued)

Sample ID	Location ID	Depth	Acetone	Benzene	Bromodichloromethane	Butanol[1-]	Butanone[2-]	Carbon disulfide	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	Dichlorobenzene-[1,4-]	Dichlorodifluoromethane	Dichloroethane[1,1-]	Dichloroethane[1,2-]	Dichloroethene[1,1-]	Dichloropropane[1,2-]	Ethanol	Ethylbenzene	Ethyltoluene[4-]	Hexane	Hexanone[2-]	Methanol	Methyl-2-pentanone[4-]	Methylene chloride
MD21-06-71336	21-26590	45.00–50.00	96	3.4	—	—	21	21	0	—	4.6	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71372	21-26591	34.00–35.00	89	2.5	—	—	13	3.7	1.3	—	20	—	—	64	3.4	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71373	21-26591	27.00–30.00	210	6.9	—	—	22	—	—	—	13	—	—	65	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71374	21-26591	15.00–17.00	130	11	—	—	22	—	2.5	—	27	—	—	150	4.6	—	—	—	—	1.6	3.2	—	—	—	0	—
MD21-06-71375	21-26591	1.50–2.50	93	5.8	—	—	13	—	1.5	—	22	—	—	120	3.5	—	—	—	—	—	2	—	—	—	0	—
MD21-06-71376	21-26592	34.00–35.00	130	2.9	—	—	18	—	—	—	3.3	—	—	4.9	—	—	—	—	—	0.96	—	—	—	—	—	—
MD21-06-71377	21-26592	23.00–25.00	320	11	—	—	37	—	—	—	7.3	—	—	9.3	0.86	—	—	—	—	0.87	—	—	1.9	—	2.8	—
MD21-06-71378	21-26592	15.00–17.00	100	5.5	—	—	13	—	—	—	6.5	—	—	9.4	—	—	—	—	—	—	—	—	—	—	0	—
MD21-06-71379	21-26592	1.50–4.00	28	4.4	—	—	—	4.3	—	—	4.2	—	2.2	6.6	—	—	—	—	—	1.8	8	—	—	—	—	—
MD21-06-71404	21-26593	34.00–35.00	170	6.4	—	—	28	5.3	1.3	—	13	—	—	14	1.8	—	—	—	—	4.3	11	—	—	—	0	—
MD21-06-71405	21-26593	20.00–22.00	80	4.3	—	—	4.6	—	2	—	21	—	—	28	2.8	—	—	—	—	3	3.3	—	—	—	0	—
MD21-06-71406	21-26593	15.00–17.00	45	1.5	—	—	4.3	—	1.7	—	18	—	—	26	2.4	—	—	—	—	1.4	—	—	—	—	—	—
MD21-06-71407	21-26593	3.00–4.00	53	4.1	—	—	—	6.7	—	—	4.3	—	—	10	—	—	—	—	—	2.1	4.1	—	—	—	—	—
MD21-06-71408	21-26594	34.00–35.00	50	0.68	—	—	—	4.6	1.8	—	6.3	1	—	6.1	—	—	—	—	—	—	8.4	—	—	—	—	—
MD21-06-71409	21-26594	25.00–27.00	57	2.3	—	—	3.9	9.1	2.7	—	13	—	—	12	1.5	—	—	—	—	—	2	—	—	—	—	—
MD21-06-71410	21-26594	17.00–20.00	35	1.5	—	—	5.4	—	2.7	—	12	—	—	10	1.3	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71411	21-26594	1.50–3.00	110	4.8	—	—	8.1	14	1.6	—	4.4	—	—	5	—	—	—	4.2	—	1.3	4.3	—	—	—	—	—
MD21-06-71436	21-26595	34.00–35.00	160	2.5	—	—	24	—	—	—	1.4	1.5	—	4	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71437	21-26595	23.00–25.00	110	12	—	—	13	8.5	3.5	—	11	—	2.8	9.2	2.4	1.7	—	39	—	11	20	—	—	—	0	—
MD21-06-71438	21-26595	15.00–17.00	61	5.3	—	—	7	—	1.6	—	6.1	—	1.9	7.1	—	—	—	—	—	3.7	8.6	—	—	—	0	—
MD21-06-71439	21-26595	2.00–4.00	200	8.2	—	—	20	—	—	—	—	1.5	—	3.9	—	—	—	—	—	—	—	—	—	—	0	—
MD21-06-71440	21-26596	34.00–35.00	68	1.4	—	—	—	—	—	—	—	—	—	3.2	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71441	21-26596	27.00–30.00	110	8.2	—	—	17	33	—	—	1	—	—	3.4	—	—	—	—	—	1.1	2.8	—	—	—	0	—
MD21-06-71442	21-26596	17.00–20.00	90	4.6	—	—	12	4.4	—	—	—	0.82	—	3.5	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71443	21-26596	5.00–7.00	130	8.9	—	—	17	5	—	—	—	1.1	—	—	—	—	—	—	—	1.4	3.6	—	—	—	—	—
MD21-06-71468	21-26597	84.00–85.00	160	0.96	—	—	9.6	—	8.1	—	8.1	—	—	23	—	3.8	—	—	—	—	—	—	—	—	—	—
MD21-06-71469	21-26597	23.00–25.00	58	3.4	—	—	7.8	—	0	—	3.9	—	—	100	—	—	—	—	—	0.99	—	—	—	—	—	—

Table 4.1-5 (continued)

Sample ID	Location ID	Depth	Acetone	Benzene	Bromodichloromethane	Butanol[1-]	Butanone[2-]	Carbon disulfide	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	Dichlorobenzene-[1,4-]	Dichlorodifluoromethane	Dichloroethane[1,1-]	Dichloroethane[1,2-]	Dichloroethene[1,1-]	Dichloropropane[1,2-]	Ethanol	Ethylbenzene	Ethyltoluene[4-]	Hexane	Hexanone[2-]	Methanol	Methyl-2-pentanone[4-]	Methylene chloride
MD21-06-71470	21-26597	12.00–15.00	29	2.9	—	—	6.6	4.9	0	—	5.1	—	—	92	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71471	21-26597	1.50–3.00	24	3.5	—	—	5.1	—	0	—	1.3	—	—	42	—	—	—	—	—	—	2.6	—	—	—	—	—
MD21-06-71472	21-26598	84.00–85.00	56	3.6	—	—	3.4	—	10	—	7	—	—	12	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71473	21-26598	50.00–51.00	51	0.79	—	—	5.7	21	9.5	—	5.1	—	—	17	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71474	21-26598	25.00–30.00	41	1.7	—	—	6.4	13	1.6	—	1.5	—	—	11	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-71475	21-26598	1.50–3.00	27	2.3	—	—	7.7	—	—	—	—	—	—	5	—	—	—	—	—	—	2.2	—	—	—	—	—
MD21-06-73141	21-26480	42.00–44.00	110	—	—	—	—	—	—	—	—	—	—	11	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-73144	21-26481	40.50–42.00	420	—	—	—	—	—	—	—	—	—	—	60	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-73147	21-26482	49.00–50.00	440	—	—	—	—	36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-73150	21-26484	43.00–45.00	280	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-73507	21-26590	27.00–30.00	79	2.9	—	—	11	25	0	—	4.1	—	—	8	—	—	—	—	—	0.97	—	—	—	—	—	—
MD21-06-73508	21-26590	1.50–3.00	21	2.3	—	—	4.2	—	—	—	—	—	—	3.3	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-73509	21-26589	7.00–9.00	23	3.2	—	—	5.3	—	—	—	—	—	—	3.1	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-73510	21-26589	17.00–19.00	30	3	—	—	4.6	9.4	2.3	—	2	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—
MD21-06-73722	21-26485	43.00–45.00	24	5.4	—	—	—	—	—	—	18	—	—	53	—	—	—	—	—	—	—	—	—	—	—	—

Table 4.1-5 (continued)

Sample ID	Location ID	Depth	n-Heptane	Propanol[2-]	Propylene	Styrene	Tetrachloroethene	Toluene	Trichloro-1,2,2-trifluoroethane-[1,1,2-]	Trichloroethane-[1,1,1-]	Trichloroethene	Trichlorofluoromethane	Trimethylbenzene- [1,2,4-]	Trimethylbenzene- [1,3,5-]	Xylene (Total)	Xylene[1,2-]	Xylene[1,3-] +Xylene [1,4-]	Tritium ^b
MD21-06-70736	21-26480	48.00–49.00	15	—	42	—	24	16	—	150	24	—	—	—	—	—	—	590
MD21-06-70737	21-26480	36.00–38.50	—	—	—	36	24	25	3.6	170	30	2.6	—	—	9.5	2.7	—	670
MD21-06-70738	21-26480	25.00–27.00	—	—	—	54	32	22	4	210	36	2.9	2.8	—	11	3.1	—	570
MD21-06-70754	21-26481	45.00–46.00	—	—	—	—	43	28	—	350	140	—	—	—	—	—	—	610
MD21-06-70755	21-26481	25.00–27.00	—	—	—	28	14	27	—	77	48	—	—	—	—	—	5.3	2830
MD21-06-70782	21-26482	30.00–32.00	—	—	—	49	20	29	—	73	160	—	—	—	—	4.1	13	2740
MD21-06-70783	21-26482	19.00–22.00	—	—	—	39	37	30	—	140	110	—	—	—	—	—	9.2	850
MD21-06-70784	21-26482	13.20–15.00	—	—	—	36	7.1	31	—	31	53	—	—	—	—	—	7.6	860
MD21-06-70800	21-26482	40.00–41.00	—	—	—	—	32	4.7	—	100	330	—	—	—	—	—	—	1270
MD21-06-70828	21-26484	48.00–49.00	20	14	—	0	45	70	—	250	150	—	—	—	—	6	13	620
MD21-06-70829	21-26484	35.00–37.00	—	—	—	35	12	25	—	53	41	—	—	—	—	—	—	820
MD21-06-70830	21-26484	25.00–27.00	—	—	—	46	—	30	—	28	22	—	—	—	—	—	—	32900
MD21-06-70831	21-26484	13.00–15.00	—	—	—	9.6	4.1	3.8	—	12	15	—	—	—	—	—	—	480
MD21-06-70846	21-26485	48.00–49.00	6.3	—	—	—	39	20	—	270	40	—	—	—	—	—	—	1220
MD21-06-70847	21-26485	32.00–34.00	—	—	—	24	28	7.1	4.8	220	22	2.7	—	—	5.2	—	—	2990
MD21-06-70848	21-26485	30.00–32.00	—	—	—	27	40	10	6.8	250	24	3.3	—	—	5.8	—	—	670
MD21-06-70849	21-26485	28.00–30.00	—	—	—	65	50	31	7.6	290	46	3.4	3.5	—	14	—	—	4160
MD21-06-70850	21-26485	24.00–26.00	—	—	—	24	38	10	—	230	24	—	—	—	—	—	—	8060
MD21-06-71304	21-26588	359.00–360.00	—	—	—	—	2.4	1.2	—	25	12	3.1	—	—	—	—	—	1762.936
MD21-06-71305	21-26588	300.00–302.00	—	—	—	38	7.4	3.5	3.3	72	15	3.7	3.6	—	7.1	—	—	17200
MD21-06-71306	21-26588	200.00–202.50	—	—	—	26	9.4	2.9	4.2	85	15	4	2.1	—	7.3	—	—	—
MD21-06-71307	21-26588	110.00–112.50	—	—	—	9.3	10	2.4	—	100	11	2.8	—	—	—	—	—	—
MD21-06-71308	21-26588	62.50–65.00	—	—	—	24	80	6.4	6.6	520	19	6.1	2.7	—	5.7	—	—	730
MD21-06-71309	21-26588	25.00–27.50	—	—	—	11	110	—	—	780	15	—	—	—	—	—	—	4630
MD21-06-71310	21-26588	15.00–17.50	—	—	—	17	110	—	—	620	13	—	—	—	—	—	—	1250
MD21-06-71311	21-26588	5.50–7.00	—	—	—	23	47	3.7	3.7	180	7.7	3.7	2.4	—	3.7	—	—	6640
MD21-06-71329	21-26589	139.00–140.00	—	—	—	—	78	1.6	—	58	51	2.2	—	—	—	—	—	720

Table 4.1-5 (continued)

Sample ID	Location ID	Depth	n-Heptane	Propanol[2-]	Propylene	Styrene	Tetrachloroethene	Toluene	Trichloro-1,2,2-trifluoroethane-[1,1,2-]	Trichloroethane-[1,1,1-]	Trichloroethene	Trichlorofluoromethane	Trimethylbenzene- [1,2,4-]	Trimethylbenzene- [1,3,5-]	Xylene (Total)	Xylene[1,2-]	Xylene[1,3-] +Xylene [1,4-]	Tritium ^b
MD21-06-71330	21-26589	92.00–94.00	—	—	—	12	30	3.1	3.4	0	17	—	—	—	3.9	—	—	1460
MD21-06-71331	21-26589	78.00–80.00	—	—	—	11	29	3.4	—	0	15	2.3	—	—	6.3	—	—	5590
MD21-06-71332	21-26589	47.00–52.00	—	—	—	6.3	14	—	—	40	—	—	—	—	—	—	—	264.919
MD21-06-71333	21-26590	139.00–140.00	—	—	—	4.4	53	3.6	—	59	37	2.6	—	—	8.1	2.4	—	990
MD21-06-71334	21-26590	100.00–102.00	—	—	—	9.6	25	3.5	—	71	15	—	—	—	2.5	—	—	450
MD21-06-71335	21-26590	75.00–77.00	—	—	—	12	24	3.8	—	78	15	—	—	—	4	—	—	690
MD21-06-71336	21-26590	45.00–50.00	—	—	—	12	10	4.9	—	0	5.4	—	—	—	3.4	—	—	2090
MD21-06-71372	21-26591	34.00–35.00	—	—	—	—	26	4	—	210	4	3.1	—	—	—	—	—	862.172
MD21-06-71373	21-26591	27.00–30.00	—	—	—	10	18	20	—	150	—	—	—	—	—	—	—	980
MD21-06-71374	21-26591	15.00–17.00	—	—	—	58	72	38	5.3	320	6.9	4.8	3.9	—	12	—	—	2340
MD21-06-71375	21-26591	1.50–2.50	—	—	—	35	47	4.5	4.1	340	4.2	3.8	2.7	—	6	—	—	730
MD21-06-71376	21-26592	34.00–35.00	—	—	—	—	5.9	3.3	—	47	1.5	—	—	—	—	—	—	4399.701
MD21-06-71377	21-26592	23.00–25.00	—	—	—	46	14	4.8	—	120	2.9	2.7	2.3	—	8.2	—	—	1808.21
MD21-06-71378	21-26592	15.00–17.00	—	—	—	26	14	3	—	110	2.4	2.7	—	—	4.9	—	—	1025.954
MD21-06-71379	21-26592	1.50–4.00	—	—	—	93	9	6	—	61	2	—	8	4	18	—	—	420
MD21-06-71404	21-26593	34.00–35.00	—	—	—	—	18	13	—	140	17	3.8	21	5.1	22	7.7	—	1092486
MD21-06-71405	21-26593	20.00–22.00	—	—	—	—	30	14	4	260	27	6.8	4.5	—	15	3.5	—	0
MD21-06-71406	21-26593	15.00–17.00	—	—	—	—	34	6.7	3.7	260	25	6.6	2.2	—	6.9	1.7	—	0
MD21-06-71407	21-26593	3.00–4.00	—	—	—	22	12	8.4	—	81	4.2	3.2	6.2	—	14	4	—	1300.691
MD21-06-71408	21-26594	34.00–35.00	—	—	—	—	6.8	—	—	61	4.3	2.6	15	4.6	14	4.5	—	0
MD21-06-71409	21-26594	25.00–27.00	—	—	—	33	15	2.2	—	140	9.1	3.4	2.5	—	5.2	—	—	780
MD21-06-71410	21-26594	17.00–20.00	—	—	—	12	14	1.5	—	130	8.8	3.1	—	—	—	—	—	830
MD21-06-71411	21-26594	1.50–3.00	—	—	—	63	4.9	6.2	—	81	4.8	—	5.2	2.5	11	—	—	520
MD21-06-71436	21-26595	34.00–35.00	—	—	—	—	4.3	4.4	—	23	—	—	—	—	4.7	1.7	—	874.713
MD21-06-71437	21-26595	23.00–25.00	—	—	—	150	25	75	4.9	260	46	4.5	22	11	62	—	—	5304.121
MD21-06-71438	21-26595	15.00–17.00	—	—	—	180	8.6	62	—	85	8.3	3.4	9.2	4.5	26	—	—	721.207
MD21-06-71439	21-26595	2.00–4.00	—	—	—	1.3	5.2	6.9	—	5.9	7.4	—	—	—	—	—	—	1283.268

Table 4.1-5 (continued)

Sample ID	Location ID	Depth	n-Heptane	Propanol[2-]	Propylene	Styrene	Tetrachloroethene	Toluene	Trichloro-1,2,2-trifluoroethane-[1,1,2-]	Trichloroethane-[1,1,1-]	Trichloroethene	Trichlorofluoromethane	Trimethylbenzene- [1,2,4-]	Trimethylbenzene- [1,3,5-]	Xylene (Total)	Xylene[1,2-]	Xylene[1,3-] +Xylene [1,4-]	Tritium ^b
MD21-06-71440	21-26596	34.00–35.00	—	—	—	—	2.3	2.3	—	12	2.2	—	—	—	—	—	—	0
MD21-06-71441	21-26596	27.00–30.00	—	—	—	32	2.8	8.5	—	20	2	—	4.1	—	8.4	—	—	420
MD21-06-71442	21-26596	17.00–20.00	—	—	—	25	—	5.1	—	9.6	—	—	—	—	4.9	—	—	77100
MD21-06-71443	21-26596	5.00–7.00	—	—	—	48	—	12	—	2.9	—	—	6.1	2.2	11	—	—	930
MD21-06-71468	21-26597	84.00–85.00	—	—	—	—	16	1.3	—	84	12	—	—	—	—	—	—	1196.866
MD21-06-71469	21-26597	23.00–25.00	—	—	—	25	22	4.6	4.2	130	12	2.6	3.3	—	5.6	—	—	970
MD21-06-71470	21-26597	12.00–15.00	—	—	—	21	24	3.7	4.3	140	13	2.7	2.2	—	3.7	—	—	890
MD21-06-71471	21-26597	1.50–3.00	—	—	—	39	7.2	6.5	—	38	2.5	—	3.3	—	6.7	—	—	750
MD21-06-71472	21-26598	84.00–85.00	—	—	—	—	21	4	—	87	8.1	2.4	—	—	—	—	—	550
MD21-06-71473	21-26598	50.00–51.00	—	—	—	—	22	310	3.1	100	7.3	2.3	—	—	—	—	—	870
MD21-06-71474	21-26598	25.00–30.00	—	—	—	8.1	12	3.2	—	56	2.5	—	—	—	—	—	—	—
MD21-06-71475	21-26598	1.50–3.00	—	—	—	26	3.4	9.5	—	14	—	—	3.8	—	5.7	—	—	631.758
MD21-06-73141	21-26480	42.00–44.00	—	—	—	—	16	—	—	100	—	—	—	—	—	—	—	1352.503
MD21-06-73144	21-26481	40.50–42.00	—	—	—	—	—	9.8	—	110	21	—	—	—	—	—	—	6377.877
MD21-06-73147	21-26482	49.00–50.00	—	—	—	—	—	—	—	17	33	—	—	—	—	—	—	1000.681
MD21-06-73150	21-26484	43.00–45.00	—	—	—	—	—	45	—	15	—	—	—	—	—	—	—	776.792
MD21-06-73507	21-26590	27.00–30.00	—	—	—	12	13	4.6	—	54	5.1	—	—	—	4.6	—	—	1040
MD21-06-73508	21-26590	1.50–3.00	—	—	—	16	2.6	6.5	—	9.8	—	—	2.2	—	3.9	—	—	412.273
MD21-06-73509	21-26589	7.00–9.00	—	—	—	18	2.4	6.1	—	6	—	—	2.6	—	4.7	—	—	236.892
MD21-06-73510	21-26589	17.00–19.00	—	—	—	13	5.2	6.3	—	18	1.4	—	2	—	4.4	—	—	2593.565
MD21-06-73722	21-26485	43.00–45.00	—	—	—	13	27	9.4	—	230	3.4	—	—	—	—	—	—	1131.443
MD21-06-70736	21-26480	48.00–49.00	15	—	42	—	24	16	—	150	24	—	—	—	—	—	—	590
MD21-06-70737	21-26480	36.00–38.50	—	—	—	36	24	25	3.6	170	30	2.6	—	—	9.5	2.7	—	670
MD21-06-70738	21-26480	25.00–27.00	—	—	—	54	32	22	4	210	36	2.9	2.8	—	11	3.1	—	570
MD21-06-70754	21-26481	45.00–46.00	—	—	—	—	43	28	—	350	140	—	—	—	—	—	—	610
MD21-06-70755	21-26481	25.00–27.00	—	—	—	28	14	27	—	77	48	—	—	—	—	—	5.3	2830
MD21-06-70782	21-26482	30.00–32.00	—	—	—	49	20	29	—	73	160	—	—	—	—	4.1	13	2740

Table 4.1-5 (continued)

Sample ID	Location ID	Depth	n-Heptane	Propanol[2-]	Propylene	Styrene	Tetrachloroethene	Toluene	Trichloro-1,2,2-trifluoroethane-[1,1,2-]	Trichloroethane-[1,1,1-]	Trichloroethene	Trichlorofluoromethane	Trimethylbenzene- [1,2,4-]	Trimethylbenzene- [1,3,5-]	Xylene (Total)	Xylene[1,2-]	Xylene[1,3-] +Xylene [1,4-]	Tritium ^b
MD21-06-70783	21-26482	19.00–22.00	—	—	—	39	37	30	—	140	110	—	—	—	—	—	9.2	850
MD21-06-70784	21-26482	13.20–15.00	—	—	—	36	7.1	31	—	31	53	—	—	—	—	—	7.6	860
MD21-06-70800	21-26482	40.00–41.00	—	—	—	—	32	4.7	—	100	330	—	—	—	—	—	—	1270
MD21-06-70828	21-26484	48.00–49.00	20	14	—	0	45	70	—	250	150	—	—	—	—	6	13	620
MD21-06-70829	21-26484	35.00–37.00	—	—	—	35	12	25	—	53	41	—	—	—	—	—	—	820
MD21-06-70830	21-26484	25.00–27.00	—	—	—	46	—	30	—	28	22	—	—	—	—	—	—	32900
MD21-06-70831	21-26484	13.00–15.00	—	—	—	9.6	4.1	3.8	—	12	15	—	—	—	—	—	—	480
MD21-06-70846	21-26485	48.00–49.00	6.3	—	—	—	39	20	—	270	40	—	—	—	—	—	—	1220
MD21-06-70847	21-26485	32.00–34.00	—	—	—	24	28	7.1	4.8	220	22	2.7	—	—	5.2	—	—	2990
MD21-06-70848	21-26485	30.00–32.00	—	—	—	27	40	10	6.8	250	24	3.3	—	—	5.8	—	—	670
MD21-06-70849	21-26485	28.00–30.00	—	—	—	65	50	31	7.6	290	46	3.4	3.5	—	14	—	—	4160
MD21-06-70850	21-26485	24.00–26.00	—	—	—	24	38	10	—	230	24	—	—	—	—	—	—	8060
MD21-06-71304	21-26588	359.00–360.00	—	—	—	—	2.4	1.2	—	25	12	3.1	—	—	—	—	—	1762.936
MD21-06-71305	21-26588	300.00–302.00	—	—	—	38	7.4	3.5	3.3	72	15	3.7	3.6	—	7.1	—	—	17200
MD21-06-71306	21-26588	200.00–202.50	—	—	—	26	9.4	2.9	4.2	85	15	4	2.1	—	7.3	—	—	—
MD21-06-71307	21-26588	110.00–112.50	—	—	—	9.3	10	2.4	—	100	11	2.8	—	—	—	—	—	—
MD21-06-71308	21-26588	62.50–65.00	—	—	—	24	80	6.4	6.6	520	19	6.1	2.7	—	5.7	—	—	730
MD21-06-71309	21-26588	25.00–27.50	—	—	—	11	110	—	—	780	15	—	—	—	—	—	—	4630
MD21-06-71310	21-26588	15.00–17.50	—	—	—	17	110	—	—	620	13	—	—	—	—	—	—	1250
MD21-06-71311	21-26588	5.50–7.00	—	—	—	23	47	3.7	3.7	180	7.7	3.7	2.4	—	3.7	—	—	6640
MD21-06-71329	21-26589	139.00–140.00	—	—	—	—	78	1.6	—	58	51	2.2	—	—	—	—	—	720
MD21-06-71330	21-26589	92.00–94.00	—	—	—	12	30	3.1	3.4	0	17	—	—	—	3.9	—	—	1460
MD21-06-71331	21-26589	78.00–80.00	—	—	—	11	29	3.4	—	0	15	2.3	—	—	6.3	—	—	5590
MD21-06-71332	21-26589	47.00–52.00	—	—	—	6.3	14	—	—	40	—	—	—	—	—	—	—	264.919
MD21-06-71333	21-26590	139.00–140.00	—	—	—	4.4	53	3.6	—	59	37	2.6	—	—	8.1	2.4	—	990
MD21-06-71334	21-26590	100.00–102.00	—	—	—	9.6	25	3.5	—	71	15	—	—	—	2.5	—	—	450
MD21-06-71335	21-26590	75.00–77.00	—	—	—	12	24	3.8	—	78	15	—	—	—	4	—	—	690

Table 4.1-5 (continued)

Sample ID	Location ID	Depth	n-Heptane	Propanol[2-]	Propylene	Styrene	Tetrachloroethene	Toluene	Trichloro-1,2,2-trifluoroethane-[1,1,2-]	Trichloroethane-[1,1,1-]	Trichloroethene	Trichlorofluoromethane	Trimethylbenzene- [1,2,4-]	Trimethylbenzene- [1,3,5-]	Xylene (Total)	Xylene[1,2-]	Xylene[1,3-] +Xylene [1,4-]	Tritium ^b
MD21-06-71336	21-26590	45.00–50.00	—	—	—	12	10	4.9	—	0	5.4	—	—	—	3.4	—	—	2090
MD21-06-71372	21-26591	34.00–35.00	—	—	—	—	26	4	—	210	4	3.1	—	—	—	—	—	862.172
MD21-06-71373	21-26591	27.00–30.00	—	—	—	10	18	20	—	150	—	—	—	—	—	—	—	980
MD21-06-71374	21-26591	15.00–17.00	—	—	—	58	72	38	5.3	320	6.9	4.8	3.9	—	12	—	—	2340
MD21-06-71375	21-26591	1.50–2.50	—	—	—	35	47	4.5	4.1	340	4.2	3.8	2.7	—	6	—	—	730
MD21-06-71376	21-26592	34.00–35.00	—	—	—	—	5.9	3.3	—	47	1.5	—	—	—	—	—	—	4399.701
MD21-06-71377	21-26592	23.00–25.00	—	—	—	46	14	4.8	—	120	2.9	2.7	2.3	—	8.2	—	—	1808.21
MD21-06-71378	21-26592	15.00–17.00	—	—	—	26	14	3	—	110	2.4	2.7	—	—	4.9	—	—	1025.954
MD21-06-71379	21-26592	1.50–4.00	—	—	—	93	9	6	—	61	2	—	8	4	18	—	—	420
MD21-06-71404	21-26593	34.00–35.00	—	—	—	—	18	13	—	140	17	3.8	21	5.1	22	7.7	—	1092486
MD21-06-71405	21-26593	20.00–22.00	—	—	—	—	30	14	4	260	27	6.8	4.5	—	15	3.5	—	0
MD21-06-71406	21-26593	15.00–17.00	—	—	—	—	34	6.7	3.7	260	25	6.6	2.2	—	6.9	1.7	—	0
MD21-06-71407	21-26593	3.00–4.00	—	—	—	22	12	8.4	—	81	4.2	3.2	6.2	—	14	4	—	1300.691
MD21-06-71408	21-26594	34.00–35.00	—	—	—	—	6.8	—	—	61	4.3	2.6	15	4.6	14	4.5	—	0
MD21-06-71409	21-26594	25.00–27.00	—	—	—	33	15	2.2	—	140	9.1	3.4	2.5	—	5.2	—	—	780
MD21-06-71410	21-26594	17.00–20.00	—	—	—	12	14	1.5	—	130	8.8	3.1	—	—	—	—	—	830
MD21-06-71411	21-26594	1.50–3.00	—	—	—	63	4.9	6.2	—	81	4.8	—	5.2	2.5	11	—	—	520
MD21-06-71436	21-26595	34.00–35.00	—	—	—	—	4.3	4.4	—	23	—	—	—	—	4.7	1.7	—	874.713
MD21-06-71437	21-26595	23.00–25.00	—	—	—	150	25	75	4.9	260	46	4.5	22	11	62	—	—	5304.121
MD21-06-71438	21-26595	15.00–17.00	—	—	—	180	8.6	62	—	85	8.3	3.4	9.2	4.5	26	—	—	721.207
MD21-06-71439	21-26595	2.00–4.00	—	—	—	1.3	5.2	6.9	—	5.9	7.4	—	—	—	—	—	—	1283.268
MD21-06-71440	21-26596	34.00–35.00	—	—	—	—	2.3	2.3	—	12	2.2	—	—	—	—	—	—	0
MD21-06-71441	21-26596	27.00–30.00	—	—	—	32	2.8	8.5	—	20	2	—	4.1	—	8.4	—	—	420
MD21-06-71442	21-26596	17.00–20.00	—	—	—	25	—	5.1	—	9.6	—	—	—	—	4.9	—	—	77100
MD21-06-71443	21-26596	5.00–7.00	—	—	—	48	—	12	—	2.9	—	—	6.1	2.2	11	—	—	930
MD21-06-71468	21-26597	84.00–85.00	—	—	—	—	16	1.3	—	84	12	—	—	—	—	—	—	1196.866
MD21-06-71469	21-26597	23.00–25.00	—	—	—	25	22	4.6	4.2	130	12	2.6	3.3	—	5.6	—	—	970

Table 4.1-5 (continued)

Sample ID	Location ID	Depth	n-Heptane	Propanol[2-]	Propylene	Styrene	Tetrachloroethene	Toluene	Trichloro-1,2,2-trifluoroethane-[1,1,2-]	Trichloroethane-[1,1,1-]	Trichloroethene	Trichlorofluoromethane	Trimethylbenzene- [1,2,4-]	Trimethylbenzene- [1,3,5-]	Xylene (Total)	Xylene[1,2-]	Xylene[1,3-] +Xylene [1,4-]	Tritium ^b
MD21-06-71470	21-26597	12.00–15.00	—	—	—	21	24	3.7	4.3	140	13	2.7	2.2	—	3.7	—	—	890
MD21-06-71471	21-26597	1.50–3.00	—	—	—	39	7.2	6.5	—	38	2.5	—	3.3	—	6.7	—	—	750
MD21-06-71472	21-26598	84.00–85.00	—	—	—	—	21	4	—	87	8.1	2.4	—	—	—	—	—	550
MD21-06-71473	21-26598	50.00–51.00	—	—	—	—	22	310	3.1	100	7.3	2.3	—	—	—	—	—	870
MD21-06-71474	21-26598	25.00–30.00	—	—	—	8.1	12	3.2	—	56	2.5	—	—	—	—	—	—	—
MD21-06-71475	21-26598	1.50–3.00	—	—	—	26	3.4	9.5	—	14	—	—	3.8	—	5.7	—	—	631.758
MD21-06-73141	21-26480	42.00–44.00	—	—	—	—	16	—	—	100	—	—	—	—	—	—	—	1352.503
MD21-06-73144	21-26481	40.50–42.00	—	—	—	—	—	9.8	—	110	21	—	—	—	—	—	—	6377.877
MD21-06-73147	21-26482	49.00–50.00	—	—	—	—	—	—	—	17	33	—	—	—	—	—	—	1000.681
MD21-06-73150	21-26484	43.00–45.00	—	—	—	—	—	45	—	15	—	—	—	—	—	—	—	776.792
MD21-06-73507	21-26590	27.00–30.00	—	—	—	12	13	4.6	—	54	5.1	—	—	—	4.6	—	—	1040
MD21-06-73508	21-26590	1.50–3.00	—	—	—	16	2.6	6.5	—	9.8	—	—	2.2	—	3.9	—	—	412.273
MD21-06-73509	21-26589	7.00–9.00	—	—	—	18	2.4	6.1	—	6	—	—	2.6	—	4.7	—	—	236.892
MD21-06-73510	21-26589	17.00–19.00	—	—	—	13	5.2	6.3	—	18	1.4	—	2	—	4.4	—	—	2593.565
MD21-06-73722	21-26485	43.00–45.00	—	—	—	13	27	9.4	—	230	3.4	—	—	—	—	—	—	1131.443

Notes: VOC units are in $\mu\text{g}/\text{m}^3$. Tritium in pCi/L.

^a — = Analyte was not detected.

^b Values are those reported in the investigation report and are biased low by a factor of approximately 2 due to a systematic conversion error discovered after the IR was published (Marczak 2009, 106500).

**Table 4.1-6
Summary of VOC Concentrations in Subsurface Vapor at MDA A (2007 Supplemental Investigation Report)**

Sample ID	Location ID	Depth (ft)	Acetone	Benzene	Butanol[1-]	Butanone[2-]	Carbon Disulfide	Chloroform	Cyclohexane	Dichlorodifluoromethane	Ethylbenzene	Ethyltoluene[4-]	Hexane	Methanol	n-Heptane	Propylene	Tetrachloroethene	Tetrahydrofuran	Toluene	Trichloroethane[1,1,1-]	Trichloroethene	Trichlorofluoromethane	Trimethylbenzene[1,2,4-]	Trimethylbenzene[1,3,5-]	Xylene[1,2-]	Xylene[1,3-]+Xylene[1,4-]
MD21-07-6943	21-26481	25.0–27.0	17	4.2	—*	57	—	15	—	77	6.9	18	—	—	22	—	23 (J+)	—	990	160	61	—	28	9.5	12	23
MD21-07-6942	21-26481	40.5–42.0	47	—	—	190	—	—	—	39	17	—	—	—	190	—	—	—	3500	69	31	—	—	—	25	48
MD21-07-6941	21-26481	45.0–46.0	69	9.1	—	41	3	16	—	88	8.6	7.3	5.3	—	7.3	—	26 (J+)	7.6	190	180	65	—	9.8	—	9.8	23
MD21-07-6950	21-26484	13.0–15.0	17	—	—	9	—	—	—	8.5	—	—	—	—	—	—	—	3.1	32	17	—	—	—	—	—	
MD21-07-6949	21-26484	25.0–27.0	28	—	—	18	—	—	—	5.1	—	—	—	—	—	—	—	9.9	85	8.6	—	—	—	—	—	4.1
MD21-07-6948	21-26484	35.0–37.0	7.7 (J)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-07-6947	21-26484	43.0–45.0	10	6.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	—	—	—	—	—	—	5.4
MD21-07-6946	21-26484	48.0–49.0	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MD21-07-6958	21-26485	24.0–26.0	100	3.3	38	20	—	6.8	—	68	—	—	—	—	5.9	—	20	—	49	120	—	—	—	—	—	—
MD21-07-6957	21-26485	28.0–30.0	17	—	—	3.8	—	6.3	—	58	—	—	—	—	—	—	20	—	65	100	—	—	—	—	—	—
MD21-07-6956	21-26485	30.0–32.0	32	—	—	5.8	2.7	12	—	99	—	—	—	—	—	—	31	—	69	170	4.5 (J)	—	—	—	—	—
MD21-07-6955	21-26485	32.0–34.0	38	—	—	8.5	—	15	3.4	140	—	—	—	—	—	—	33	—	64	210	5.2	—	—	—	—	—
MD21-07-6954	21-26485	43.0–45.0	22	—	—	5.6	—	17	4.1	130	—	—	—	—	—	—	32	—	160	200	11	—	—	—	—	—
MD21-07-6953	21-26485	48.0–49.0	26	—	—	22	—	15	—	110	—	—	—	—	5.7	—	27	—	240	180	5.8	—	—	—	—	7
MD21-07-6961	21-26588	5.5–7.0	100	—	—	42	—	—	—	28	—	—	3.7	—	—	—	20 (J+)	5	10	70	—	—	—	—	—	7.4
MD21-07-6962	21-26588	15.0–17.5	50	—	—	25	—	14	—	80	—	—	3.9	—	—	—	53 (J+)	2.6	11	220	8.3	—	—	—	—	7.3
MD21-07-6963	21-26588	25.0–27.5	43	—	—	17	—	20	—	91	—	—	3.9	—	—	—	48 (J+)	—	12	240	9.8	—	—	—	—	7.5
MD21-07-6964	21-26588	62.0–65.0	27	—	—	44	—	15	—	56	—	—	—	—	5.8	—	20 (J+)	—	230	120	10	—	5.8	—	5.3	11
MD21-07-6966	21-26588	300.0–302.0	140	—	—	16	—	4.8	—	9.6	—	—	—	—	—	—	23	—	—	27	9.6	—	—	—	—	—
MD21-07-6965	21-26588	359.0–360.0	20	—	—	3	—	—	—	4.2 (J)	—	—	—	—	—	—	—	—	4.6	5.6	—	—	—	—	—	—
MD21-07-6982	21-26593	15.0–16.0	15	—	—	26	13	13	—	62	—	—	—	—	—	—	22	—	230	140	39	—	—	—	—	—
MD21-07-6981	21-26593	34.0–35.0	15	—	—	15	—	22	3.7	88	—	—	—	—	240	—	—	27	—	160	190	29	4.9 (J)	—	—	3.8
MD21-07-6980	21-26593	54.0–55.0	16	—	—	24	—	23	—	80	—	—	—	—	—	—	22	—	220	160	24	—	—	—	—	4.8
MD21-07-6979	21-26593	74.0–75.0	12	—	—	17	—	20	—	57	—	—	—	—	—	—	15	—	150	120	21	—	—	—	—	4.3
MD21-07-6978	21-26593	94.0–95.0	47	—	74	23	—	13	—	32	—	—	—	—	4.1	—	12	—	180	74	16	—	—	—	—	5.1
MD21-07-6977	21-26593	114.0–115.0	92	3.8	—	20	140	12	—	29	—	—	—	—	—	—	14 (J+)	—	6.3	71	16	—	—	—	—	—
MD21-07-6974	21-26596	5.0–7.0	10	—	—	6.3	—	—	—	—	—	—	—	—	—	—	—	—	230	18	—	—	—	—	—	—
MD21-07-6973	21-26596	17.0–20.0	96	8.3	—	12	—	—	—	—	4.2	4.5	4.4	—	—	—	—	—	19	17	4.9	—	6.5	—	5.1	11
MD21-07-6972	21-26596	27.0–30.0	130	7.2	—	27	3.4	—	—	—	4.4	4.9	4.3	—	4.2	—	—	—	18	19	6.4	—	7.4	—	5.3	12
MD21-07-6971	21-26596	34.0–35.0	180	16	—	34	3.1	—	—	—	4.7	5.2	8.9	—	9	—	—	—	25	10	—	—	7.5	—	5.9	12

Note: VOC concentrations are in µg/m³.

* — = Analyte was not detected.

**Table 4.1-7
VOC Pore-Gas Screening Results (2007 Supplemental Investigation Report)**

Chemical	Maximum Detected Concentration ($\mu\text{g}/\text{m}^3$)	H' (dimensionless)	Groundwater Screening Level ($\mu\text{g}/\text{L}$)	Screening Value
Acetone	180	0.0016	5500 ^a	2.05E-02
Benzene	16	0.228	5 ^b	1.40E-02
Butanol[1-]	74	0.000347	37,000 ^a	5.76E-02
Butanone[2-]	190	0.0011	7,100 ^a	2.43E-02
Carbon disulfide	140	1.2	1000 ^a	1.17E-04
Chloroform	23	0.15	100 ^c	1.53E-03
Cyclohexane	4.1	0.193	13,000 ^a	1.63E-06
Dichlorodifluoromethane	140	4.1	390 ^a	8.76E-05
Ethylbenzene	17	0.323	700 ^b	7.52E-05
Ethyltoluene[4-]	18	0.00493	na ^d	na
Hexane	8.9	5	420 ^a	4.24E-06
Methanol	240	0.000109	18,000 ^a	1.22E-01
Heptane[n-]	190	2.06	na ^d	na
Propylene	23	0.0000854	na ^d	na
Tetrachloroethene	53	0.754	5 ^b	1.41E-02
Tetrahydrofuran	9.9	0.00289	8.8 ^a	3.89E-01
Toluene	3500	0.272	750 ^c	1.72E-02
Trichloroethane[1,1,1-]	240	0.705	60 ^c	5.67E-03
Trichloroethene	61	0.422	5 ^b	2.89E-02
Trichlorofluoromethane	4.9	4	1300 ^a	9.42E-07
Trimethylbenzene[1,2,4-]	28	0.23	13 ^a	9.36E-03
Trimethylbenzene[1,3,5-]	9.5	0.32	12 ^a	2.47E-04
Xylene[1,2-]	25	0.213	620 ^c	1.89E-04
Xylene[1,3-]+Xylene[1,4-]	48	0.3	620 ^c	2.58E-04

^a EPA Region 6 tap water screening level (EPA 2007, 095866).

^b EPA maximum contaminant level.

^c New Mexico Water Quality Control Commission groundwater standard.

^d na = Not available.

**Table 4.1-8
Summary of Tritium Activities in
Subsurface Vapor at MDA A (2007 Supplemental Investigation Report)**

Sample ID	Location ID	Depth Range (ft)	Tritium Activity ^a
MD21-07-6943	21-26481	25.00–27.00	— ^b
MD21-07-6942	21-26481	40.50–42.00	—
MD21-07-6941	21-26481	45.00–46.00	329.656
MD21-07-6950	21-26484	13.00–15.00	—
MD21-07-6949	21-26484	25.00–27.00	—
MD21-07-6948	21-26484	35.00–37.00	—
MD21-07-6947	21-26484	43.00–45.00	—
MD21-07-6946	21-26484	48.00–49.00	—
MD21-07-6957	21-26485	28.00–30.00	—
MD21-07-6956	21-26485	30.00–32.00	—
MD21-07-6955	21-26485	32.00–34.00	252.997
MD21-07-6954	21-26485	43.00–45.00	391.019
MD21-07-6953	21-26485	48.00–49.00	490.804(J-)
MD21-07-6961	21-26588	5.50–7.00	921.662
MD21-07-6962	21-26588	15.00–17.50	800.545
MD21-07-6963	21-26588	25.00–27.50	917.729
MD21-07-6964	21-26588	62.50–65.00	594.588
MD21-07-6968	21-26588	110.00–112.50	911.306(J-)
MD21-07-6967	21-26588	200.00–202.50	569.78(J-)
MD21-07-6966	21-26588	300.00–302.00	283.644
MD21-07-6965	21-26588	359.00–360.00	—
MD21-07-6982	21-26593	15.00–16.00	359.048
MD21-07-6981	21-26593	34.00–35.00	323.456
MD21-07-6980	21-26593	54.00–55.00	—
MD21-07-6979	21-26593	34.00–35.00	277.793
MD21-07-6978	21-26593	94.00–95.00	—
MD21-07-6977	21-26593	114.00–115.00	—
MD21-07-6974	21-26596	5.00–7.00	—
MD21-07-6973	21-26596	15.00–20.00	375.046
MD21-07-6972	21-26596	27.00–30.00	382.272
MD21-07-6971	21-26596	34.00–35.00	1073.84

Note: Tritium activities are in pCi/L.

^a Values are those reported in the investigation report and are biased low by a factor of approximately 2 due to a systematic conversion error discovered after the IR was published (Marczak 2009, 106500).

^b — = Analyte was not detected.

Appendix A

Acronyms and Abbreviations, and Data Qualifier Definitions

A-1.0 ACRONYMS AND ABBREVIATIONS

A & T	(needs definition)
AOC	area of concern
bgs	below ground surface
BV	background value
CME	corrective measures evaluation
Consent Order	Compliance Order on Consent
COPC	chemical of potential concern
CSM	conceptual site model
D&D	decontamination and decommissioning
DOE	Department of Energy (U.S.)
DP	Delta Prime
EcoPRG	ecological preliminary remediation goal
EPA	Environmental Protection Agency (U.S.)
FB	field blank
FD	field duplicate
ft	feet
IP	individual permit
IR	investigation report
IWP	investigation work plan
LANL	Los Alamos National Laboratory
MDA	material disposal area
N3B	Newport News Nuclear BWXT-Los Alamos, LLC
NMED	New Mexico Environment Department
NMHWAA	New Mexico Hazardous Waste Act
PCB	polychlorinated biphenyl
pCi/L	picocuries per liter
PID	photoionization detector
QA	quality assurance
QC	quality control
RFI	RCRA (Resource Conservation and Recovery Act) facility investigation
SAL	screening action level
SMO	Sample Management Office

SSL	soil screening level
SVOC	semivolatile organic compound
SWMU	solid waste management unit
TA	technical area
TAL	target analyte list
TD	total depth
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 ($\mu\text{g}/\text{g}$)	1	parts per million (ppm)
liters (L)	0.26	gallons (gal.)
milligrams per liter (mg/L)	1	parts per million (ppm)
degrees Celsius ($^{\circ}\text{C}$)	$9/5 + 32$	degrees Fahrenheit ($^{\circ}\text{F}$)

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 (QA/QC) parameters.

