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Date: JAN 29 2018
Refer To: ADEM-18-0002
LAUR: 17-31388

John Kieling, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Submittal of the Accelerated Corrective Action Report for North Ancho Canyon Aggregate Area

Dear Mr. Kieling:

Enclosed please find two hard copies with electronic files of the Accelerated Corrective Action Report for North Ancho Canyon Aggregate Area. This accelerated corrective action (ACA) report presents the results of the investigation and cleanup activities conducted in the North Ancho Canyon Aggregate Area at Los Alamos National Laboratory. The ACA was conducted in 2017 to accelerate completion of some activities required by the Phase II Investigation Work Plan for North Ancho Canyon Aggregate Area, approved by the New Mexico Environment Department (NMED) in January 2011. Cleanup activities were conducted at former waste stockpile areas at Solid Waste Management Units (SWMUs) 39-001(a) and 39-001(b), the former capacitor staging areas at SWMU 39-001(a), and at SWMU 39-007(a).

In accordance with Section XIX.B of the Compliance Order on Consent (the Consent Order), ACA activities included in an NMED-approved work plan do not require prior written approval from NMED to implement. Although the ACA report was estimated to be completed by September 30, 2017, additional time was required to complete the cleanup activities. An extended duration for contracting activities delayed the planned start date of field activities. In addition, initial extent sampling activities were extended as a result of limited escort availability to meet security requirements. The cleanup activities also took longer than planned as a result of confirmation sampling results, which required two additional rounds of excavations. Although the duration to complete the ACA took longer than anticipated, the cleanups were completed in advance of the remaining Phase II work plan scope, all cleanup objectives have been met, and no further corrective actions are required at these sites.

A pre-submission meeting was held between Los Alamos National Security, LLC, and NMED on January 11, 2018, at which NMED indicated they had no comments or changes to the report.

If you have any questions, please contact Kent Rich at (505) 665-4272 (krich@lanl.gov) or Cheryl Rodriguez at (505) 665-5330 (cheryl.rodriguez@em.doe.gov).

Sincerely,

Bruce Robinson, Program Director
Environmental Remediation Program
Los Alamos National Laboratory

Sincerely,

David S. Rhodes, Director
Office of Quality and Regulatory Compliance
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BR/DR/KR:sm

Enclosures: Two hard copies with electronic files – Accelerated Corrective Action Report for North Ancho Canyon Aggregate Area (EP2018-0002)

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Accelerated Corrective Action Report for North Ancho Canyon Aggregate Area

Los Alamos
NATIONAL LABORATORY
EST. 1943

Prepared by the Associate Directorate for Environmental Management

Los Alamos National Laboratory, operated by Los Alamos National Security, LLC, for the U.S. Department of Energy (DOE) under Contract No. DE-AC52-06NA253 and under DOE Office of Environmental Management Contract No. DE-EM0003528, 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.
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EP2018-0002

Accelerated Corrective Action Report for North Ancho Canyon Aggregate Area

January 2018

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EXECUTIVE SUMMARY

This accelerated corrective action (ACA) report presents the results of the investigation and cleanup activities conducted in the North Ancho Canyon Aggregate Area at Los Alamos National Laboratory (LANL or the Laboratory). The ACA activities were conducted in 2017 in accordance with the "Phase II Investigation Work Plan for North Ancho Aggregate Area," approved by the New Mexico Environment Department in January 2011.

The objectives of the ACA were to

- complete extent sampling at the former waste stockpile areas at Solid Waste Management Units (SWMUs) 39-001(a) and 39-001(b), the former capacitor staging areas at SWMU 39-001(a), and around sampling locations 39-10019 and 39-604854 at SWMU 39-007(a);
- remove all contaminated soil from
    - ❖ the former waste stockpile area at SWMU 39-001(a) with polychlorinated biphenyl (PCB) concentrations in excess of 1 milligram per kilogram (mg/kg), lead concentrations above the residential soil screening level (SSL), and uranium-238 concentrations above the residential screening action level (SAL);
    - ❖ the former capacitor staging areas at SWMU 39-001(a) with PCB concentrations in excess of 1.0 mg/kg, and a 4-ft radius around sampling locations 39-10019 and 39-604854 with PCB concentrations in excess of 1.0 mg/kg;
    - ❖ the former waste stockpile area at SWMU 39-001(b) with PCB concentrations in excess of 1.0 mg/kg and semivolatile organic chemical (SVOC) concentrations above residential SSLs; and
- collect confirmation samples to verify removal of all contaminated soil from the two former waste stockpile areas, the former capacitor staging areas, and the former storage area at SWMU 39-007(a), in accordance with the approved "Phase II Investigation Work Plan for North Ancho Aggregate Area, Revision 1."

Analytical data from confirmation sampling indicate PCB concentrations are below 1.0 mg/kg at the former waste stockpile areas at SWMUs 39-001(a) and 39-001(b), the former capacitor staging areas at SWMU 39-001(a), and at SWMU 39-007(a). In addition, lead concentrations and uranium-238 activities are below the residential SSL and SAL, respectively, at the former waste stockpile area SWMU 39-001(a); and SVOC concentrations are below residential SSLs at the former waste stockpile area at SWMU 39-001(b). Therefore, all cleanup objectives have been met and no further corrective actions are required at these sites.

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1.0 INTRODUCTION

1.1 General Site Information

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 Los Alamos 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 39 mi^2 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 7200 to 7800 ft above mean sea level.

The Laboratory is participating in a national effort by DOE to clean up sites and facilities previously involved in weapons research and development. The goal of the Laboratory's efforts is to ensure 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 is currently investigating sites potentially contaminated by past Laboratory operations. These sites are designated as either solid waste management units (SWMUs) or areas of concern (AOCs).

This accelerated corrective action (ACA) report describes investigation and remediation activities conducted in 2017 at the former waste stockpile areas at SWMUs 39-001(a) and 39-001(b), former capacitor staging areas at SWMU 39-001(a), and the former storage area at SWMU 39-007(a) at Technical Area 39 (TA-39) in the North Ancho Canyon Aggregate Area. The activities described in this report were conducted in accordance with the approved "Phase II Investigation Work Plan for North Ancho Aggregate Area, Revision 1"; (LANL 2011, 201561; NMED 2011, 203447). Figure 1.1-1 shows the location of TA-39 within the North Ancho Canyon Aggregate Area with respect to Laboratory technical areas and surrounding land holdings.

These sites are potentially contaminated with both hazardous and radioactive components. Corrective actions at the Laboratory are subject to the Compliance Order on Consent (the Consent Order). Information on radioactive materials and radionuclides, including the results of sampling and analysis of radioactive constituents, is voluntarily provided to the New Mexico Environment Department (NMED) in accordance with DOE policy.

1.2 Location of ACA Activities

TA-39 is located within the North Ancho Canyon Aggregate Area (Figure 1.1-1). The ACA activities described in this report were conducted at the former waste stockpile area north-northwest of SWMU 39-001(a), the former capacitor staging areas east of SWMU 39-001(a), the former waste stockpile area north of SWMU 39-001(b), and an area southeast of SWMU 39-007(a) (Figure 1.2-1). Debris and contaminated soil excavated from the disposal trenches associated with SWMUs 39-001(a) and 39-001(b) during remediation activities performed in 2009 were stockpiled to allow for characterization and packaging for transportation and off-site disposal. Two areas located along the eastern boundary of SWMU 39-001(a) were used to stage electrical capacitors removed from the SWMU 39-001(a) landfill during the 2009 cleanup. SWMU 39-007(a) is the location of a former storage area outside the east side of an equipment shelter (structure 39-63) where used oil containing lead and solvents was historically stored.

1.3 Purpose of ACA Activities

The objectives of the ACA were to

- complete extent sampling at the former waste stockpile areas at SWMUs 39-001(a) and 39-001(b), the former capacitor staging areas at SWMU 39-001(a), and around sampling locations 39-10019 and 39-604854 at SWMU 39-007(a);
- remove all contaminated soil from
    - ❖ the former waste stockpile area at SWMU 39-001(a) with polychlorinated biphenyl (PCB) concentrations in excess of 1 milligram per kilogram (mg/kg), lead concentrations above the residential soil screening level (SSL) of 400 mg/kg, and uranium-238 concentrations above the residential screening action level (SAL) of 88 picocuries per gram (pCi/g);
    - ❖ the former capacitor staging areas at SWMU 39-001(a) with PCB concentrations in excess of 1.0 mg/kg, and a 4-ft radius around sampling locations 39-10019 and 39-604854 with PCB concentrations in excess of 1.0 mg/kg;
    - ❖ the former waste stockpile area at SWMU 39-001(b) with PCB concentrations in excess of 1.0 mg/kg and semivolatile organic chemical (SVOC) concentrations above residential SSLs; and
- collect confirmation samples to verify removal of all contaminated soil from the two former waste stockpile areas, the former capacitor staging areas, and the former storage area at SWMU 39-007(a) in accordance with the approved Phase II Investigation Work Plan (Phase II IWP) (LANL 2011, 201561).

The confirmation sampling conducted at the former waste stockpile and capacitor staging areas during this ACA was intended to confirm that all residual waste has been removed from the sites and that the original native soil surface has been reached. Therefore, defining vertical extent was not an objective at these sites.

1.3.1 Investigation Activities

Investigation activities were conducted at the former waste stockpiles areas at SWMUs 39-001(a) and 39-001(b), the former capacitor staging areas at SWMU 39-001(a), and the former storage area at SWMU 39-007(a). Sampling was conducted to determine the extent of contaminated soil requiring removal at the former waste stockpile and capacitor staging areas, and around sampling locations 39-10019 and 39-604854 at SWMU 39-007(a). Sampling was also conducted to confirm cleanup levels had been met prior to backfilling excavated areas.

1.3.2 Remediation Activities

Remedial actions were performed at the former waste stockpiles areas at SWMUs 39-001(a) and 39-001(b), the former capacitor staging areas at SWMU 39-001(a), and at the former storage area at SWMU 39-007(a). Remedial activities consisted of excavating contaminated soil from former waste stockpile areas at SWMUs 39-001(a) and 39-001(b), and around sampling locations 39-10019 and 39-604854 at SWMU 39-007(a). Excavated areas were backfilled after confirmatory sampling results determined residual concentrations were below residential SSLs (NMED 2017, 602273) and SALs (LANL 2015, 600929), or the default PCB cleanup level of 1.0 mg/kg from the 2005 Consent Order, which was applicable at the time the Phase II IWP was approved. Investigation results for the remediated sites are included in Table 1.3-1.

1.4 Document Organization

Section 2.0 provides background information on each site and previous investigation results. Section 3.0 describes the regulatory criteria and target cleanup levels for remediation activities conducted at each site. Methodologies followed during investigation and remediation activities implemented at each site are included in section 4.0. ACA activities conducted for each site in 2017 are presented in section 5.0, along with analytical results, deviations from the approved Phase II IWP (LANL 2011, 201561; NMED 2011, 203447), and final site conditions. Section 6.0 provides the conclusions for the ACA, section 7.0 presents the recommendations for each site, and section 8.0 provides references and the map data sources.

Appendix A contains a list of acronyms and abbreviations used in this report, a metric conversion table, and a data qualifier definition table. Appendix B summarizes the field methods used during the ACA. Appendix C presents the analytical program implemented for chemical analysis and data quality control. Appendix D provides the analytical results of the samples collected during the investigation. Appendix E describes the storage and disposal of investigation-derived waste (IDW). Appendix F provides photographs from the ACA.

2.0 BACKGROUND

The 2009 investigation of North Ancho Canyon Aggregate Area included the remediation of two former landfills, SWMUs 39-001(a) and 39-001(b). Remediation activities included excavation of all debris and contaminated soil associated with the two former landfills. As part of the remediation activities, the Laboratory requested approval for establishing areas of contamination at each site (LANL 2008, 105015). The purpose of the area of contamination designations was to provide areas where remediation waste and layback and overburden spoils could be staged and segregated on-site without triggering a new point of waste generation or a new area of waste placement subject to Resource Conservation and Recovery Act requirements. The request for establishment of these areas of contamination was approved by NMED (NMED 2008, 104332). The Laboratory later requested expansion of the two designated areas of contamination (LANL 2009, 105720), which was subsequently approved by NMED (NMED 2009, 105597). Two areas located along the eastern boundary of SWMU 39-001(a), within the designated area of contamination, were used to stage electrical capacitors removed from the SWMU 39-001(a) landfill. A release of PCB-contaminated oil from the capacitors was discovered while the capacitors were being staged on-site.

The approval of the area of contamination designation for sites in North Ancho Canyon Aggregate Area required that soil not be returned to the point of origin unless contaminant concentrations were less than residential cleanup levels (NMED 2008, 104332). Based on this requirement, all surface soil within the former waste stockpile areas and the capacitor staging areas could not contain contamination in excess of residential SSLs/SALs or the Consent Order PCB cleanup level of 1.0 mg/kg in effect at that time.

Following the removal of all waste and contaminated soil from the waste stockpile areas at SWMUs 39-001(a) and 39-001(b), and the capacitors and visually contaminated soil from the capacitor staging areas at SWMU 39-001(a), sampling was performed in 2010 within and around the footprints of the former waste stockpile and capacitor staging areas. The objective of this sampling was to characterize residual contamination remaining on the surface after completion of waste management activities to determine whether additional cleanup was required. This sampling was unrelated to the sampling performed during the 2009 investigation to characterize the nature and extent of contamination at the associated SWMUs, and the results of the sampling did not affect the conclusions of the 2009 investigation.

The sampling approach for the former waste stockpile areas at SWMUs 39-001(a) and 39-001(b) and the capacitor staging areas at SWMU 39-001(a) was based on collection of multi-increment (MI) samples. The MI sampling approach is described in detail in section 2.9.1.2 of the approved Phase II IWP (LANL 2011, 201561; NMED 2011, 203447). To implement the MI sampling approach, the former waste stockpile areas were divided into 25-ft × 25-ft decision units and the former capacitor staging areas were divided into 5-ft × 5-ft decision units. Each decision unit within the areas where waste or spoils had been stockpiled or handled at SWMUs 39-001(a) and 39-001(b) was sampled.

Based on the frequency of detection of contaminants above residential SSLs and SALs in the waste characterization sampling conducted before waste was shipped off-site for disposal, and the magnitude of sample results above SSLs and SALs, PCBs were determined to be the best indicator of residual contamination at the former waste stockpile and capacitor staging areas. That is, PCBs were detected above residential SSLs most frequently and at the highest concentrations above SSLs. Therefore, all MI samples collected in the former waste storage areas at SWMUs 39-001(a) and 39-001(b) and the capacitor staging areas at SWMU 39-001(a) were submitted for laboratory analysis of PCBs.

Waste characterization data and the sampling performed in 2010 within and around the footprints of the former waste stockpile and capacitor staging areas are included in Appendix D of the approved Phase II IWP and summarized below (LANL 2011, 201561; NMED 2011, 203447).

2.1 Former Waste Stockpile and Capacitor Staging Areas at SWMU 39-001(a)

2.1.1 Site Description and Operational History

Activities conducted during the 2009 cleanup of the SWMU 39-001(a) landfill included excavation and stockpiling of debris and contaminated soil from the disposal trench within the area of contamination established north of the trench excavation prior to packaging and shipping this waste material for off-site disposal. The former waste stockpile area at SWMU 39-001(a) was located approximately 40 ft north of the northern boundary of the 2009 SWMU 39-001(a) excavation (Figure 2.1-1). At the completion of the excavation of the SWMU 39-001(a) landfill, the waste stockpile area consisted of approximately 2800 yd^3 of remediation waste and layback and overburden spoils, and covered an irregularly shaped area of 8345 ft^2. Following waste characterization activities, the contaminated soil and debris staged in the waste stockpile area was transported off-site by truck for disposal at the Energy Solutions, LLC disposal facility in Clive, Utah or the Clean Harbors facility in Painted Desert, Colorado based on characterization results (LANL 2010, 108500.11).

2.1.2 Summary of Previous Investigations

As part of waste characterization activities specified in the waste characterization strategy form (WCSF) for the 2009 investigation, soil samples were collected from the waste stockpile at each site. Samples were collected at a frequency of approximately 1 sample per 100 yd^3 of soil. Thirty-four samples were collected from the waste stockpile at SWMU 39-001(a). Sampling results for the former waste stockpile at SWMU 39-001(a) showed the contaminated soil was not hazardous waste and that residential SSLs and SALs were exceeded only for lead, Aroclor-1242, Aroclor-1254, and uranium-238, respectively. PCBs were detected in 31 of 34 samples and were detected above the 1.0 mg/kg cleanup level in 10 samples. Lead was detected above the soil background value (BV) in 3 of 34 samples and was detected above the residential SSL in one sample. Uranium-238 was detected above the soil BV in 12 samples and was detected above the residential SAL in 1 sample. Waste characterization data for the SWMU 39-001(a) waste stockpile are provided in Appendix D of the approved Phase II IWP (LANL 2011, 201561; NMED 2011, 203447).

Following the removal of all waste and contaminated soil from the waste stockpile area at SWMU 39-001(a) in 2010, sampling was performed to characterize residual contamination remaining on the ground surface after completion of waste management activities to determine whether additional cleanup of the designated area of contamination was required. The former waste stockpile area was divided into forty-six 25-ft × 25-ft decision units within and around the footprint of the former waste stockpile. Surface samples were collected from each decision unit at a depth of 0.0 to 0.17 ft below ground surface (bgs) in accordance with the MI approach. All MI samples were submitted for laboratory analysis of PCBs. The samples collected and analyses requested are presented in Table 2.1-1. Figure 2.1-2 shows the decision units sampled at the former waste stockpile area at SWMU 39-001(a). PCBs were detected above 1.0 mg/kg in 39 of the 46 decision units in the former waste stockpile at SWMU 39-001(a). PCB results from 2010 are presented in Figure 2.1-3 and Table 2.1-2 for SWMU 39-001(a).

2.2 Former Waste Capacitor Staging Areas at SWMU 39-001(a)

2.2.1 Site Description and Operational History

Two areas located along the eastern boundary of SWMU 39-001(a), within the designated area of contamination at SWMU 39-001(a), were used to stage electrical capacitors removed from the SWMU 39-001(a) landfill (Figure 2.2-1). A release of PCB-contaminated oil was discovered while the capacitors were being staged on-site. The Laboratory notified the U.S. Environmental Protection Agency (EPA) and the National Response Center of this release on June 29, 2009, and began cleanup of the site in accordance with the Toxic Substances Control Act self-implementing cleanup process specified in 40 Code of Federal Regulations (CFR) 761.61(a). The capacitors were removed from each staging area and packaged in a single drum with absorbent and shipped off-site for disposal at the Clean Harbors facility in Painted Desert, Colorado based on characterization results. All soil with visible oil staining was removed and containerized. Following waste characterization activities, this material was shipped off-site for disposal at the Energy Solutions, LLC disposal facility in Clive, Utah (LANL 2010, 108500.11).

2.2.2 Summary of Previous Investigations

Based on waste characterization data, PCBs are the only type of contamination associated with the former capacitor staging areas at SWMU 39-001(a). Following the removal of the capacitors and all soil with visible oil staining from each staging area east of SWMU 39-001(a) in 2009, each staging area was divided into 5-ft × 5-ft decision units with eight decision units established at the north staging area and nine in the south staging area (Figure 2.2-2). A decision unit was not established at the north corner of the north staging area because of the presence of a tree at this location. Visual inspection determined that this location had not been impacted by the release. Surface samples were collected from each decision unit at a depth of 0.0 to 0.17 ft bgs in accordance with the MI approach. All MI samples were submitted for laboratory analysis of PCBs. Two ft of soil was excavated from eight decision units in the northern capacitor staging area and from nine decision units in the southern capacitor staging area where PCBs were detected above 1.0 mg/kg or where soil staining had been observed because of leakage from the capacitors. Following excavation, a second round of MI samples was collected from each of the eight excavated decision units in the northern capacitor staging area and the nine excavated decision units in the southern capacitor staging area from a depth of 2.0 to 2.17 ft bgs. In addition, MI samples were collected from the outermost sidewall of the excavation at two locations in the northern staging area and three locations in the southern staging area from the depth interval 0.0 to 2.0 ft bgs. All samples were submitted for laboratory analysis of PCBs.

Based on the results of the second round of MI sampling, an additional 2.0 ft of soil was removed from one decision unit in the northern capacitor staging area and from two decision units in the southern capacitor staging area where PCBs were detected above 1.0 mg/kg. Following excavation, a third round of MI samples was collected from each of these three decision units from a depth of 4.0 to 4.17 ft bgs and submitted for laboratory analysis of PCBs. Because the results from the third round of confirmation samples showed PCB concentrations of less than 1.0 mg/kg at all locations, the excavated areas were then backfilled with clean soil. The samples collected and analyses requested from the capacitor staging areas in 2009 are summarized in Table 2.2-1. Results of detected PCBs in confirmatory samples are presented in Table 2.2-2.

The total volumes of soil removed were approximately 15 yd^3 at the northern capacitor staging area and 20 yd^3 at the southern capacitor staging area. Excavated soil was placed on the waste stockpile at SWMU 39-001(a) and was subsequently removed and disposed of off-site in 2010 (LANL 2010, 108500.11).

2.3 Former Waste Staging Area at SWMU 39-001(b)

2.3.1 Site Description and Operational History

Activities conducted during the 2009 cleanup of the SWMU 39-001(b) landfill included excavation and stockpiling of debris and contaminated soil from the disposal trench within the area of contamination established north of the trench excavation prior to packaging and shipping this waste material for off-site disposal. The former waste stockpile area at SWMU 39-001(b) was located approximately 30 ft north of the northern boundary of the 2009 SWMU 39-001(a) excavation (Figure 2.3-1). At the completion of the excavation of the SWMU 39-001(b) landfill, the waste stockpile area consisted of approximately 9450 yd^3 of material and covered an irregularly shaped area of about 24,212 ft^2. The contaminated soil and debris staged in the waste stockpile area was transported off-site by truck for disposal at the Energy Solutions, LLC disposal facility in Clive, Utah or the Clean Harbors facility in Painted Desert, Colorado based on characterization results (LANL 2010, 108500.11).

2.3.2 Summary of Previous Investigations

As part of waste characterization activities specified in the WCSF for the 2009 investigation, soil samples were collected from the waste stockpile at each site. Samples were collected at a frequency of approximately 1 sample per 100 yd^3 of soil. Ninety-two samples were collected from the waste stockpile at SWMU 39-001(b). Sampling results for the waste stockpile at SWMU 39-001(b) showed the soil was not hazardous waste and that residential SSLs were exceeded only for Aroclor-1016, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, and indeno[1,2,3-cd]pyrene. PCBs were detected in 74 of 92 samples and were detected above the 1.0 mg/kg cleanup level in 10 samples. One or more SVOCs were detected in 59 of 92 samples, and residential SSLs were exceeded in 25 samples. Waste characterization data for the SWMU 39-001(b) waste stockpile are provided in Appendix D of the approved Phase II IWP (LANL 2011, 201561; NMED 2011, 203447).

Following the removal of all waste and contaminated soil from the waste stockpile area at SWMU 39-001(b) in 2010, sampling was performed to characterize residual contamination remaining on the surface after completion of waste management activities to determine whether additional cleanup was required. The former waste stockpile area was divided into eighty 25-ft × 25-ft decision units within and around the footprint of the former waste stockpile. Surface samples were collected from each decision unit at depths of 0.0 to 0.17 ft bgs in accordance with the MI approach. All MI samples were submitted for laboratory analysis of PCBs. The samples collected and analyses requested are presented in

Table 2.3-1. Figure 2.3-2 shows the decision units sampled at the former waste stockpile area at SWMU 39-001(b). PCBs were detected above 1.0 mg/kg in 4 of the 80 decision units in the former waste stockpile at SWMU 39-001(b). Results of the 2010 MI sampling are presented in Figure 2.3-3 and Table 2.3-2 for SWMU 39-001(b).

2.4 Former Storage Area at SWMU 39-007(a)

2.4.1 Site Description and Operational History

SWMU 39-007(a) is the location of a former storage area on a concrete pad under a covered porch outside the east side of an equipment shelter (structure 39-63) at TA-39 (Figure 2.4-1). The dates of operation of the storage area are not known. Used oil containing lead and solvents was stored at this area. The area around the concrete pad is relatively flat but slopes eastward to a drainage near the adjacent road. A portion of the site was remediated during a 1995 voluntary corrective action to remove PCB-contaminated soil (LANL 1996, 053786).

2.4.2 Summary of Previous Investigations

Lateral and vertical extent of inorganic chemicals and organic chemicals were defined at SWMU 39-007(a) during the 2009 investigation. Samples collected and PCB analysis requested during the 2009 investigation are presented in Table 2.4-1. PCB data from 2009 for SWMU 39-007(a) are presented in Table 2.4-2 and shown in Figure 2.4-2. The chemicals of potential concern (COPCs) for SWMU 39-007(a) were evaluated using both industrial and residential SSLs. No radionuclide COPCs were identified at this site. However, industrial and residential SSLs were exceeded for Aroclor-1254 and Aroclor-1260 at sampling locations 39-10019 and 39-604854. The ecological risk-screening assessment determined there are no ecological risks to receptors (LANL 2010, 108500.11).

3.0 REGULATORY CRITERIA AND TARGET CLEANUP LEVELS

3.1 Current and Future Land Use

The current or reasonably foreseeable future use for this aggregate area is industrial. The former waste stockpile areas at SWMU 39-001(a) and 39-001(b), the former capacitor staging area at SWMU 39-001(a), and the former waste storage area at SWMU 39-007(a) are no longer in use and have been investigated and remediated. No risk-screening assessments for human health or ecological risk were conducted for these sites during the ACA.

3.2 Cleanup Goals

The approval of the areas of contamination designation at SWMUs 39-001(a) and 39-001(b) required that soil not be returned to the point of origin unless contaminant concentrations are less than residential cleanup levels (NMED 2008, 104332). Based on this requirement, all surface soil within the former waste stockpile areas at SWMUs 39-001(a) and 39-001(b), including the capacitor staging areas, cannot contain contamination in excess of residential SSLs/SALs or the default 2005 Consent Order PCB cleanup level of 1.0 mg/kg. Soil within an approximate 4-ft radius around sampling locations 39-10019 and 39-604854 at SWMU 39-007(a) was removed until PCB concentrations were below 1.0 mg/kg.

The only contaminants present above residential SSLs/SALs were PCBs, lead, and uranium-238 at the former waste stockpile area at SWMU 39-001(a), PCBs at the former capacitor staging areas at SWMU 39-001(a), PCBs and SVOCs at the former waste stockpile area at SWMU 39-001(b), and PCBs

at SWMU 39-007(a). Therefore, the objective of the additional cleanup activities at these sites was to ensure concentrations of lead, uranium-238, and/or SVOCs are below residential SSLs/SALs and the default 2005 Consent Order cleanup level of 1.0 mg/kg for PCBs (LANL 2011, 201561; NMED 2011, 203447). Extent and confirmation sampling data from the former waste stockpile area at SWMU 39-001(a) were compared to the current NMED residential SSL for lead, and extent and confirmation sampling data from the former waste stockpile area at SWMU 39-001(b) were compared to the current NMED residential SSLs for SVOCs (NMED 2017, 602273). If a chemical has both carcinogenic and noncarcinogenic SSLs, the lower of the two is presented. Radionuclides were assessed using the Laboratory SALs (LANL 2015, 600929). The SSLs and SALs are presented in Table 3.2-1.

4.0 INVESTIGATION METHODS

4.1 Establishment of Decision Units and Sampling Locations

Proposed decision units and sampling locations are identified for each site based on engineering drawings, surveyed locations of existing structures (from the geographic information system database), previous sampling locations, and topography or other features identified in the field (e.g., drainage channels, sediment accumulation areas, etc.). The coordinates of proposed new decision units and sampling locations were obtained by georeferencing the points from the proposed sampling maps. The coordinates were located and flagged or otherwise marked in the field using a differential global positioning system (GPS) unit. Several proposed sampling locations within decision units were moved because of field conditions or other unexpected reasons; the new locations were surveyed before sample collection as described in section 4.2. Rationale for moved sample locations and decision unit vertices is described in section 5.5.

4.2 Geodetic Surveys

Initial geodetic surveys of extent sampling locations and decision unit corners were performed by NM State–licensed surveyors using a TOPCON GR-3 GPS unit. Field personnel then used the a Trimble GEO 7 Series global navigation satellite system (GNSS) to stake out the predetermined sampling locations and decision units for field technicians collecting sample media and heavy-equipment operators excavating contaminated media at the former waste stockpile areas at SWMUs 39-001(a) and 39-001(b), former capacitor staging areas at SWMU 39-001(a), and at SWMU 39-007(a). Surveyed coordinates for all sampling locations are maintained in the Sample Management Database, and surveyed coordinates of the former waste stockpile and capacitor staging areas, corresponding decision units, and SWMU boundaries are maintained in the Environmental Management geographic information system (GIS). The surveyed coordinates are presented in Table 4.2-1.

4.3 Field Screening

Because sampling was primarily conducted to finalize extent based on previous investigations and confirm cleanup levels were met, field screening was primarily conducted for health and safety purposes rather than to inform sampling locations or depths. However, if elevated field-screening levels were observed for the deepest sample collected from a specific sampling location, sample collection would continue until field-screening results show no elevated readings. The Laboratory's proposed field-screening approach was to (1) visually examine all samples for evidence of contamination, and (2) screen for radioactivity. Based on 2009 investigation results, VOC contamination was not expected to be encountered; therefore field screening for organic vapors was not performed.

4.3.1 Radioactivity

Field screening for radioactivity was conducted for health and safety purposes by LANL radiological control technicians (RCTs). Radiological screening targeted gross-alpha, -beta, and -gamma radiation. Field screening for alpha, beta, and gamma radiation was conducted within 6 in. from the sample material and was performed using appropriate field instruments calibrated by LANL RCTs in accordance with the Laboratory's Health Physics Operations Group procedures. No radiological screening results exceeded twice the daily site background levels. No changes to sampling or other activities occurred as a result of field-screening results. Radiological screening results are provided in Table 4.3-1.

4.4 Sampling

4.4.1 Surface, Shallow-Subsurface and Subsurface Sampling

Surface, shallow-subsurface, and subsurface soil and sediment samples were collected in accordance with standard operating procedure (SOP) ER-SOP-20069, "Soil, Tuff, and Sediment Sampling." A stainless-steel hand auger was used to collect material in approximately 6-in. to 1-ft increments. A stainless-steel bowl and scoop were used to capture the sample from the hand auger, which was then transferred to sterile sample collection containers for transport to the Laboratory's Sample Management Office (SMO). The sample collection tools were decontaminated immediately before collection of each sample in accordance with EP-ERSS-SOP-5061, "Field Decontamination of Equipment."

4.4.2 Quality Assurance/Quality Control Samples

Regular and quality assurance (QA)/quality control (QC) samples were collected in accordance with ER-SOP-20235, "Sample Containers, Preservation, and Field Quality Control." QA/QC samples included field duplicate samples, equipment blanks, and trip blanks. QA/QC samples are used to monitor the validity of the sample collection procedures.

4.5 Excavation

4.5.1 Excavation Methodology

Excavation activities required a tracked excavator to remove contaminated soil and to backfill excavated areas. Excavated soil was collected and containerized at the point of generation in supersacks on pallets. Forklifts were used to move the pallets with supersacks to the waste staging area. Dust suppression was conducted during excavation and backfilling activities as necessary.

4.6 Chemical and Radiological Analyses at Off-Site Laboratory

4.6.1 Sample Collection

Samples collected were screened for gross-alpha, -beta, and -gamma radiation by LANL RCTs. The samples were then placed in appropriate sample bottles obtained from the SMO. After the samples were bottled, labeled, recorded in the sample collection log (SCL), and sealed for custody, the completed sample kits were placed in a cooler with blue ice and taken to the SMO at the end of each day to be shipped off-site. (Appendix D includes sample collection logs and chain-of-custody forms).

4.6.2 Analytical Suites

Analytical suites varied from site to site. Information on samples collected and analyses requested is presented for specific sites in section 5 (Tables 5.1-1, 5.2-1, 5.3-1 and 5.4-1). Analytical suites requested include target analyte list (TAL) metals (lead only), isotopic uranium (uranium-238 only), and PCBs for samples collected from the former waste stockpile area at SWMU 39-001(a); PCBs for samples collected from the former capacitor staging areas at SWMU 39-001(a), SVOCs and PCBs for the former waste stockpile area at SWMU 39-001(b), and PCBs for samples collected at SWMU 39-007(a).

5.0 ACCELERATED CORRECTIVE ACTION ACTIVITIES

The activities described in the approved North Ancho Phase II IWP were conducted at TA-39 from June to October 2017 (LANL 2011, 201561; NMED 2011, 203447). During field screening, no radiological screening results exceeded twice the daily site background levels. Field-screening results for samples collected at the three sites in 2017 were recorded in the SCLs provided in Appendix D. No changes to sampling or other activities occurred based on field-screening results.

5.1 Removal of PCB-Contaminated Soil from the Former Waste Stockpile Area at SWMU 39-001(a)

5.1.1 Extent Sampling Activities at the Former Waste Stockpile Area at SWMU 39-001(a)

Prior to the excavation of the 36 decision units where PCBs were detected above the 1.0 mg/kg cleanup level, but below 50 mg/kg in 2010, step-out samples were collected from additional decision units adjacent to the outermost 2010 decision units to define the lateral extent of contaminated soil with greater than 1.0 mg/kg PCBs. In accordance with the approved Phase II IWP, 23 new step-out sampling locations were established in 23 additional 25-ft × 25-ft decision units adjacent to the outermost 2010 decision units to confirm the extent of the area to be excavated (LANL 2011, 201561; NMED 2011, 203447). The former waste stockpile area at SWMU 39-001(a) was adjacent to and east of Ancho Road. Because the road was not used to handle wastes or stockpile spoils, the road defines the westernmost extent of the area to be excavated and no sampling locations were established on the road itself.

In June 2017, following the same grid-based sampling approach used during the 2010 investigation, one discrete surface sample was collected from a depth of 0.0 to 1.0 ft bgs at the center of each of the 23 additional decision units adjacent to the outermost 2010 decision units at the former waste stockpile area at SWMU 39-001(a). All 23 step-out samples were submitted for analysis of lead, PCBs, and isotopic uranium. The new decision units and corresponding step-out sampling locations are shown in Figure 5.1-1. Table 5.1-1 summarizes samples collected and analyses requested for each sample.

5.1.1.1 Inorganic Chemicals

Lead was not detected above the soil BV in any of the 23 step-out samples collected from the 23 additional decision units.

5.1.1.2 Organic Chemicals

Results of analysis of extent samples for PCBs are presented in Table 5.1-2 and Plate 1. Total PCBs were not detected at concentrations above the 1.0 mg/kg cleanup level in any of the 23 step-out samples collected from the 23 additional decision units. PCBs were detected in 19 samples. Aroclor-1260 was detected in one sample at 0.005 mg/kg, Aroclor-1242 and Aroclor-1248 were each detected in

two samples with maximum concentrations of 0.038 mg/kg and 0.052 mg/kg, respectively, and Aroclor-1254 was detected in 17 samples with a maximum concentration of 0.31 mg/kg, which is also the maximum total detected PCB concentration.

5.1.1.3 Radionuclides

Results of analysis of extent samples for uranium isotopes are presented in Figure 5.1-2 and Table 5.1-3. Uranium-238 was detected above the soil BV in one sample at an activity of 2.98 pCi/g at location 39-61439, well below the residential SAL of 88 pCi/g.

5.1.2 Remediation Activities at the Former Waste Stockpile Area at SWMU 39-001(a)

Results from the 23 extent samples collected around the former waste stockpile area at SWMU 39-001(a) showed the lateral extent of residual contamination is defined and cleanup levels have been met. Therefore, the excavation of additional decision units at the former waste stockpile area at SWMU 39-001(a) was not required.

In August 2017, the top 1 ft of soil was excavated from each of the previous 36 decision units where PCBs were detected at greater than 1.0 mg/kg but less than 50 mg/kg, and the top 3 ft of soil was excavated from the two previous decision units where PCBs were detected between 50 mg/kg and 500 mg/kg and at greater than 500 mg/kg, respectively.

In September 2017, an additional 1 ft of soil was excavated from all or portions of eight previous decision units where total PCB concentrations exceeded the 1.0 mg/kg cleanup level in confirmation samples collected at locations 39-61470, 39-61472, 39-61474, 39-61481, 39-61488, 39-61496, 39-61497, 39-61498, and 39-61512. None of the eight previous decision units included the two previous decision units where PCBs were detected between 50 mg/kg and 500 mg/kg and at greater than 500 mg/kg, respectively.

In October 2017, an additional 1 ft of soil was excavated from the northern portion of the decision unit around confirmation sampling location 39-61481 where the total PCB concentration exceeded the 1.0 mg/kg cleanup level. A second confirmation sample (sample ID RE39-17-139687) was collected following the removal of the second 1 ft of soil in September 2017.

All excavated areas and confirmation sampling locations are shown in Figure 5.1-1.

The total volume of soil removed from the former waste stockpile area at SWMU 39-001(a) was approximately 810 yd^3.

5.1.3 Confirmation Sampling Activities at the Former Waste Stockpile Area at SWMU 39-001(a)

In August 2017, after the excavation of the 36 previous decision units where PCBs were detected at greater than 1.0 mg/kg but less than 50 mg/kg, and the two previous decision units where PCBs were detected between 50 mg/kg and 500 mg/kg and at greater than 500 mg/kg, respectively, two confirmation sampling locations were located in the southwest and northeast corners of each excavated decision unit. Two discrete surface samples were collected from the bottom of each of the 36 excavated decision units at a depth of 0.0 to 1.0 ft below the depth to which each decision unit was excavated (i.e., 1.0 to 2.0 ft bgs). Following the excavation of the top 3 ft of soil from the two previous decision units where PCBs were detected between 50 mg/kg and 500 mg/kg and at greater than 500 mg/kg, respectively, two discrete surface samples were collected from the bottom of the excavation at a depth of 3.0 to 4 ft bgs to confirm cleanup levels had been met. All 76 confirmation samples were submitted for laboratory analysis of lead, PCBs, and isotopic uranium.

In September 2017, after the excavation of an additional 1 ft of soil from all or portions of eight decision units where total PCB concentrations exceeded the 1.0 mg/kg cleanup level in nine confirmation samples, one discrete surface sample was collected from a depth of 2.0 to 3.0 ft bgs from each of the nine confirmation sampling locations (locations 39-61470, 39-61472, 39-61474, 39-61481, 39-61488, 39-61496, 39-61497, 39-61498, and 39-61512). The nine additional confirmation samples were submitted for laboratory analysis of PCBs.

In October 2017, after the excavation of an additional 1 ft of soil from the northern portion of the decision unit around confirmation sampling location 39-61481 where the total PCB concentration exceeded the 1.0 mg/kg cleanup level in the second confirmation sample, one discrete surface sample was collected from a depth of 3.0 to 4.0 ft bgs from location 39-61481 and submitted for laboratory analysis of PCBs.

The decision units and corresponding confirmation sampling locations at the former waste stockpile area at SWMU 39-001(a) are shown in Figure 5.1-1. Table 5.1-1 summarizes samples collected and analyses requested for each sample.

5.1.4 Confirmation Sampling Analytical Results at the Former Waste Stockpile Area at SWMU 39-001(a)

5.1.4.1 Inorganic Chemicals

Results of analysis of confirmation samples for lead are presented in Table 5.1-4. Lead was detected slightly above the soil BV (22.3 mg/kg) at a concentration of 22.6 mg/kg in one confirmation sample (location 39-61474) collected from one excavated decision unit within the former waste stockpile area at SWMU 39-001(a). This sample was excavated during subsequent PCB removal activities at location 39-61474.

5.1.4.2 Organic Chemicals

Results of analysis of confirmation samples for PCBs are presented in Table 5.1-2 and Plate 1. Total PCBs were detected at concentrations above the 1.0 mg/kg cleanup level in nine confirmation samples collected from 8 of the 36 excavated decision units where PCBs were detected at greater than 1.0 mg/kg but less than 50 mg/kg during the 2009/2010 investigation. PCBs were not detected above the 1.0 mg/kg cleanup level in confirmation samples collected from the two decision units where PCBs were detected between 50 mg/kg and 500 mg/kg and at greater than 500 mg/kg, respectively. Aroclor-1260 was detected in 10 samples with a maximum concentration of 0.555 mg/kg, Aroclor-1248 was detected in 22 samples with a maximum concentration of 0.54 mg/kg, and Aroclor-1254 was detected in 45 samples with a maximum concentration of 3.18 mg/kg, which is also the maximum total detected PCB concentration.

Total PCBs were detected at concentrations above the 1.0 mg/kg cleanup level in one of the nine confirmation samples collected in September 2017 from sampling locations 39-61470, 39-61472, 39-61474, 39-61481, 39-61488, 39-61496, 39-61497, 39-61498, and 39-61512 following the excavation of an additional 1 ft of soil from all or portions of eight decision units where total PCB concentrations exceeded the 1.0 mg/kg cleanup level in the first round of confirmation samples. Aroclor-1248 was detected in three of the nine samples with a maximum concentration of 0.101 mg/kg, and Aroclor-1254 was detected in five of the nine samples with a maximum concentration of 5.28 mg/kg, which is also the maximum total detected PCB concentration detected at location 39-61481.

Total PCBs were not detected at concentrations above the 1.0 mg/kg cleanup level in the confirmation sample collected in October 2017 from sampling location 39-61481 following the excavation of an additional 1 ft of soil from the portion of one decision unit where the total PCB concentration exceeded the 1.0 mg/kg cleanup level in the second round of confirmation samples. Only Aroclor-1254 was detected at a concentration of 0.0388 mg/kg in final confirmation sample collected from location 39-61481.

5.1.4.3 Radionuclides

Results of analysis of confirmation samples for uranium isotopes are presented in Figure 5.1-2 and Table 5.1-3. Uranium-238 was detected above the soil BV in three confirmation samples at a maximum activity of 2.95 pCi/g, well below the residential SAL of 88 pCi/g. All three samples were excavated during subsequent PCB removal activities at locations 39-61472, 39-61481, and 39-61497.

5.1.5 Summary of Extent of Contamination and Cleanup Levels at the Former Waste Stockpile Area at SWMU 39-001(a)

The lateral extent of residual contamination is defined at the former waste stockpile area at SWMU 39-001(a) and all cleanup levels specified in the approved Phase II IWP have been met (LANL 2011, 201561; NMED 2011, 203447).

5.2 Sampling Activities at the Former Capacitor Staging Areas at SWMU 39-001(a)

5.2.1 Extent Sampling Activities at the Former Capacitor Staging Areas at SWMU 39-001(a)

During the 2017 ACA, a discrete, grid-based sampling approach was used to confirm PCB concentrations are below the 1.0 mg/kg cleanup level within and around the 2010 decision units at the former capacitor staging areas at SWMU 39-001(a). In accordance with the approved Phase II IWP, the seventeen 5-ft × 5-ft decision units from 2010 were re-established along with a single sample location at the center of each decision unit. In addition, three new step-out sampling locations were established on the north, east, and south sides of each of the former capacitor staging areas (LANL 2011, 201561; NMED 2011, 203447) (Figure 5.2-1).

In June 2017, one discrete sample was collected at the center of each of the 17 previous decision units at a depth of 0.0 to 1.0 ft below the depth at which each decision unit was excavated during the 2009/2010 cleanup activities (i.e., 2.0 to 3.0 ft bgs or 4.0 to 5.0 ft bgs). Step-out samples were also collected at the six locations 5 ft out from the center of the middle decision units along the north, east, and south sides of the two former capacitor staging areas. Three samples were collected at each of the six step-out locations from depth intervals of 0.0 to 1.0 ft bgs, 2.0 to 3.0 ft bgs, and 4.0 to 5.0 ft bgs.

In accordance with NMED's request, two samples were also collected from depths of 0.0 to 1.0 ft bgs and 1.0 to 1.5 ft bgs at one new sampling location (location 39-61652) in the northernmost decision unit of the northern capacitor staging area that was not accessible during the 2009/2010 investigation (NMED 2011, 203447). All samples from the former capacitor staging areas were submitted for laboratory analysis of PCBs. The decision units, corresponding sampling locations, and new step-out sampling locations are shown in Figure 5.2-1. Table 5.2-1 summarizes samples collected and analyses requested for each sample.

5.2.2 Sampling Analytical Results at the Former Capacitor Staging Areas at SWMU 39-001(a)

Results of analysis of samples for PCBs are presented in Figure 5.2-2 and Table 5.2-2. PCBs were not detected at concentrations above the 1.0 mg/kg cleanup level in any of the 17 samples collected from the 17 previous decision units or any of the 18 samples collected from the six new step-out sampling locations around the former capacitor staging areas. PCBs were also not detected at concentrations above the 1.0 mg/kg cleanup level in the two samples collected from the new sampling location in the northernmost decision unit of the northern capacitor staging area (location 39-61652). Aroclor-1260 was detected in three samples with a maximum concentration of 0.0165 mg/kg, Aroclor-1242 was detected in 12 samples with a maximum concentration of 0.0236 mg/kg, and Aroclor-1254 was detected in 18 samples with a maximum concentration of 0.383 mg/kg, which is also the maximum total detected PCB concentration at the former capacitor staging areas.

5.2.3 Summary of Extent of Contamination and Cleanup Levels at the Former Capacitor Staging Areas at SWMU 39-001(a)

The lateral and vertical extent of residual PCB contamination is defined and the 1.0 mg/kg PCB cleanup level has been met at the former capacitor staging areas at SWMU 39-001(a). Because the lateral extent of residual PCBs is defined and PCB concentrations are below the 1.0 mg/kg cleanup level, no additional remediation activities were conducted at the former capacitor staging areas at SWMU 39-001(a).

5.3 Removal of PCB-Contaminated Soil from the Former Waste Stockpile Area at SWMU 39-001(b)

5.3.1 Extent Sampling Activities at the Former Waste Stockpile Area at SWMU 39-001(b)

Prior to the excavation of the four decision units where PCBs were detected above the 1.0 mg/kg cleanup level in 2010, samples were collected from the other 79 decision units to confirm PCB concentrations do not exceed the 1.0 mg/kg PCB cleanup level or SVOC residential SSLs. In accordance with the approved Phase II IWP, the seventy-nine 25-ft × 25-ft decision units were re-established and a discrete sample location was established at the center of each decision unit (LANL 2011, 201561; NMED 2011, 203447) (Figure 5.3-1). The former waste stockpile area at SWMU 39-001(b) was adjacent to and east of Ancho Road. Because the road was not used to handle wastes or stockpile spoils, the road defines the westernmost extent of the area to be excavated and no sampling locations were established on the road itself.

In June 2017, following the same grid-based sampling approach used during the 2010 investigation, one discrete surface sample was collected from a depth of 0.0 to 1.0 ft bgs at the center of each of the 79 decision units within the former waste stockpile area at SWMU 39-001(b) where PCB concentrations were previously below the 1.0 mg/kg PCB cleanup level. All 79 samples were submitted for laboratory analysis of PCBs and SVOCs. The decision units and corresponding sampling locations are shown in Figure 5.3-1. Table 5.3-1 summarizes samples collected and analyses requested for each sample.

5.3.1.1 Organic Chemicals

Results of analysis of extent samples for PCBs are presented in Table 5.3-2 and Plate 2. PCBs were not detected at concentrations above the 1.0 mg/kg cleanup level in any of the 79 samples collected from the 79 previous decision units. Aroclor-1242 was detected in 31 samples with a maximum concentration of 0.0414 mg/kg, Aroclor-1248 was detected in three samples with maximum a concentration of 0.273 mg/kg, Aroclor-1254 was detected in 35 samples with a maximum concentration of 0.776 mg/kg, which is also the maximum total detected PCB concentration, and Aroclor-1260 was detected in 23 samples with a maximum concentration of 0.0866 mg/kg.

Results of analysis of extent samples for SVOCs are presented in Table 5.3-3 and Plate 3. Twenty-three SVOCs were detected in at least one sample collected at the former waste stockpile area at SWMU 39-001(b). Detected SVOCs include: acenaphthene; acenaphthylene; anthracene; benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzo(k)fluoranthene; benzoic acid; bis(2-ethylhexyl)phthalate; chrysene; di-n-octylphthalate; dibenz(a,h)anthracene; dibenzofuran; diethylphthalate; fluoranthene; fluorene; indeno(1,2,3-cd)pyrene; 1-methylnaphthalene; 2-methylnaphthalene; naphthalene; phenanthrene; and pyrene. However, only benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected above residential SSLs in the sample collected at location 39-61572. This sampling location receives runoff from Ancho Road, and because detected SVOC concentrations were higher in this sample than in any of the other 22 extent samples, it was suspected that a small piece of asphalt was included in the sampled media. Therefore, a second surface sample was collected from a new sampling location (location 39-61651) approximately 5 ft east of sampling location 39-61572 to ensure asphalt from Ancho Road was not present in the sample. The new sample was submitted for laboratory analysis of PCBs and SVOCs.

Total PCBs were not detected at a concentration above 1.0 mg/kg in the new sample collected from new sampling location 39-61651. Aroclor-1254 and Aroclor-1260 were detected at concentrations of 0.00348 mg/kg and 0.00133 mg/kg, respectively, with a total PCB concentration of 0.00481 mg/kg concentration (Table 5.3-2 and Plate 2).

SVOCs were not detected in the sample collected from new sampling location 39-61651, confirming the original sample from location 39-61572 contained asphalt from Ancho Road. Additionally, all other detected SVOC concentrations were orders of magnitude below concentrations detected in the sample from location 39-61572, indicating SVOCs are not site-related (Table 5.3-3 and Plate 3).

5.3.2 Remediation Activities at the Former Waste Stockpile Area at SWMU 39-001(b)

Results from the 79 extent samples collected within and around the former waste stockpile area at SWMU 39-001(b) showed the lateral extent of residual contamination is defined and cleanup levels have been met. Therefore, the excavation of additional decision units at the former waste stockpile area at SWMU 39-001(b) was not required.

In late July and early August 2017, the top 1 ft of soil was excavated at each of the previous four decision units where PCBs were detected at greater than 1.0 mg/kg but less than 50 mg/kg (Figure 5.3-1). The total volume of soil removed was approximately 41 yd^3.

5.3.3 Confirmation Sampling Activities at the Former Waste Stockpile Area at SWMU 39-001(b)

After the excavation of the four previous decision units where PCBs were detected at greater than 1.0 mg/kg but less than 50 mg/kg, two confirmation sampling locations were located in the southwest and northeast corners of each decision unit. Two discrete surface samples were collected from the bottom of each excavated decision unit at a depth of 0.0 to 1.0 ft bgs below the depth at which the decision unit was excavated (i.e., 1.0 to 2.0 ft bgs) to confirm cleanup levels had been met. All eight confirmation samples were submitted for laboratory analysis of PCBs and SVOCs. The decision units and corresponding confirmation sampling locations are shown in Figure 5.3-1. Table 5.3-1 summarizes samples collected and analyses requested for each sample.

5.3.4 Confirmation Sampling Analytical Results at the Former Waste Stockpile Area at SWMU 39-001(b)

5.3.4.1 Organic Chemicals

Results of analysis of confirmation samples for PCBs are presented in Table 5.3-2 and Plate 2. PCBs were not detected at concentrations above the 1.0 mg/kg cleanup level in any of the eight confirmation samples collected from the four excavated decision units. Aroclor-1254 was detected in four samples with a maximum concentration of 0.15 mg/kg PCBs, which is also the maximum total detected PCB concentration, and Aroclor-1260 was detected in one sample at a concentration of 0.00206 mg/kg.

Results of analysis of confirmation samples for SVOCs are presented in Table 5.3-3 and Plate 3. Twelve SVOCs were detected in at least one confirmation sample collected from the four excavated decision units at the former waste stockpile area at SWMU 39-001(b). Detected SVOCs include: benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene; benzoic acid; chrysene; fluoranthene; indeno(1,2,3-cd)pyrene; pentachlorophenol; phenanthrene; and pyrene. All detected SVOC concentrations were below residential SSLs.

5.3.5 Summary of Extent of Contamination and Cleanup Levels at the Former Waste Stockpile Area at SWMU 39-001(b)

The lateral extent of residual contamination is defined at the former waste stockpile area at SWMU 39-001(b) and all cleanup levels specified in approved Phase II IWP have been met (LANL 2011, 201561; NMED 2011, 203447).

5.4 Removal of PCB-Contaminated Soil from the Former Storage Area at SWMU 39-007(a)

5.4.1 Extent Sampling Activities at Former Storage Area at SWMU 39-007(a)

Prior to the excavation of PCB-contaminated soil around sampling locations 39-10019 and 39-604854 at SWMU 39-007(a) where Aroclor-1254 and Aroclor-1260 concentrations were detected above 1.0 mg/kg in 2010, samples were collected from six step-out locations around the planned excavation area to confirm PCB concentrations do not exceed the 1.0 mg/kg PCB cleanup level. In July 2017, 18 samples were collected at six new sampling locations (locations 39-61638 through 39-61643) around the outside edge of the planned excavation. The extent samples were collected at depths of 0.0 to 1.0 ft, 2.0 to 3.0 ft, and 4.0 to 5.0 ft bgs. All 18 samples were submitted for analysis of PCBs. The sampling locations are shown in Figure 5.4-1. Table 5.4-1 summarizes samples collected and analyses requested for each sample.

Results of the extent sampling conducted along the planned excavation boundary around sampling locations 39-10019 and 39-604854 at SWMU 39-007(a) are presented in Figure 5.4-2 and Table 5.4-2. PCBs were not detected at concentrations above 1.0 mg/kg in any of the 18 extent samples. Aroclor-1248 was detected in one sample at a concentration of 0.0491 mg/kg, which is the maximum total PCB concentration. Aroclor-1260 was detected in four samples with a maximum concentration of 0.0286 mg/kg. Therefore, the lateral extent of residual PCB contamination is defined around sampling locations 39-10019 and 39-604854 at SWMU 39-007(a).

5.4.2 Remediation Activities at Former Storage Area at SWMU 39-007(a)

In early August 2017, the upper 2 ft of soil was removed within a 4-ft radius around sampling locations 39-10019 and 39-604854 where Aroclor-1254 and Aroclor-1260 concentrations were detected above 1.0 mg/kg in 2010. The total volume of soil removed was approximately 7 yd^3.

5.4.3 Confirmation Sampling Activities at Former Storage Area at SWMU 39-007(a)

Confirmation samples were collected from the bottom of the excavation at sampling locations 39-10019 and 39-604854 from depth intervals of 0.0 to 1.0 ft and 2.0 to 3.0 ft below the bottom of the excavation on August 8, 2017 to confirm cleanup to less than 1 mg/kg PCBs. All four samples were submitted for analysis of PCBs. The sampling locations are shown in Figure 5.4-1. Table 5.4-1 summarizes samples collected and analyses requested for each sample.

5.4.4 Confirmation Sampling Analytical Results at Former Storage Area at SWMU 39-007(a)

Results of analysis of confirmation samples for PCBs are presented in Figure 5.4-2 and Table 5.4-2. PCBs were not detected at concentrations above 1.0 mg/kg in any of the four confirmation samples collected from sampling locations 39-10019 and 39-604854. Aroclor-1260 was detected at 0.0015 mg/kg in the sample collected from 2.0 to 3.0 ft below the bottom of the excavation at sampling location 39-10019, and Aroclor-1260 was detected at 0.0084 mg/kg in the sample collected from 0.0 to 1.0 ft below the bottom of the excavation at sampling location 39-604854.

5.4.5 Summary of Extent of Contamination and Cleanup Levels at Former Storage Area at SWMU 39-007(a)

Lateral and vertical extent of the inorganic chemicals and organic chemicals were defined at SWMU 39-007(a) during the 2009 investigation (LANL 2010, 108500.11). The goal of the confirmation sampling was to confirm cleanup to less than 1 mg/kg PCBs. The PCB cleanup level of 1.0 mg/kg has been met at and around sampling locations 39-10019 and 39-604854 at SWMU 39-007(a). Therefore, the lateral extent of residual PCB contamination is defined and the 1.0 mg/kg PCB cleanup level has been met; no additional remediation activities are required at SWMU 39-007(a).

5.5 Deviations from the Approved Investigation Work Plan

5.5.1 Former Waste Stockpile and Capacitor Staging Areas at SWMU 39-001(a)

The following Phase II IWP locations were moved at SWMU 39-001(a) as a result of site conditions.

- Location 39-61432 (decision unit location 1a-8 in the Phase II IWP) was moved approximately to the west-southwest, out of the Ancho Canyon stream channel and onto the stream bank.
- Location 39-61433 (decision unit location 1a-9 in the Phase II IWP) was moved approximately 80 ft to the north-northeast and upstream of the site to define lateral extent. The original decision unit sampling location was in the stream channel.
- Location 39-61434 (decision unit location 1a-10 in the Phase II IWP) was relocated to a location in the stream channel directly east of extent sampling location 39-61437 (decision unit location 1a-45 in the Phase II IWP) to define lateral extent. The original decision unit sampling location was in the stream channel.

- Location 39-61458 (decision unit location 1a-11 in the Phase II IWP) was moved to the southeast to better represent the southern half of the excavated decision unit because the location proposed in the Phase II IWP was against Ancho Road.
- Location 39-61465 (decision unit location 1a-18 in the Phase II IWP) was moved to the south-southwest because the proposed location was in the stream channel.
- Location 39-61435 (decision unit location 1a-21 in the Phase II IWP) was relocated approximately 400 ft south of the site to a location in the stream channel to define lateral extent. The original decision unit sampling location was in the stream channel.
- Locations 39-61478 and 39-61479 (decision unit locations 1a-33 and 1a-34 in the Phase II IWP) were moved to the northeast because the proposed locations were against Ancho Road.

5.5.2 Former Capacitor Staging Areas at SWMU 39-001(a)

There were no deviations from the approved Phase II IWP at the former capacitor staging areas at SWMU 39-001(a).

5.5.3 Former Waste Stockpile Area at SWMU 39-001(b)

Several polycyclic aromatic hydrocarbons were detected above residential SSLs in the sample collected at location 39-61572. This sampling location receives runoff from Ancho Road and because detected SVOC concentrations were higher in this sample than any of the other 22 extent samples collected at the former waste stockpile area at SWMU 39-001(b), it was suspected that a small piece of asphalt was included in the sampled media.

- A second surface sample was collected from a new sampling location (location 39-61651) approximately 5 ft east of sampling location 39-61572 to ensure asphalt from Ancho Road was not present in the sample. The new sample was submitted for laboratory analysis of PCBs and SVOCs.
- The western boundary of the decision unit with proposed confirmation sampling locations 1b-83 and 1b-84 from the Phase II IWP was moved to the east so as not to include Ancho Road. Corresponding sampling locations 39-61649 and 39-61650 were not moved.

5.5.4 SWMU 39-007(a), Former Storage Area

There were no deviations from the approved Phase II IWP at the former storage area at SWMU 39-007(a).

5.6 Final Site Conditions

Soil was excavated at the former waste stockpile areas at SWMUs 39-001(a) and 39-001(b) and at the former waste storage area at SWMU 39-007(a). The excavations at all three sites were backfilled with clean fill material from a quarry approximately 10 mi north of Espanola, New Mexico, and restored to the approximate original grade and condition. Soil was not excavated at the former capacitor staging areas at SWMU 39-001(a) because PCBs were not detected above the 1.0 mg/kg cleanup level in any of the confirmation or extent samples collected at the site.

6.0 CONCLUSIONS

6.1 Summary of Remediation Activities

In accordance with the approved Phase II IWP, the following remediation activities were performed during the 2017 North Ancho ACA.

- At the former waste stockpile area at SWMU 39-001(a), the top 1 ft of soil was excavated from each of the 36 previous decision units where PCBs were detected at greater than 1.0 mg/kg but less than 50 mg/kg, and the top 3 ft of soil was excavated from the two previous decision units where PCBs were detected between 50 mg/ kg and 500 mg/kg and at greater than 500 mg/kg, respectively. An additional 1 ft of soil was excavated from all or portions of eight previous decision units where total PCB concentrations exceeded the 1.0 mg/kg cleanup level in confirmation samples collected at locations 39-61470, 39-61472, 39-61474, 39-61481, 39-61488, 39-61496, 39-61497, 39-61498, and 39-61512. An additional 1 ft of soil was excavated from the northern portion of the decision unit around confirmation sampling location 39-61481 where the total PCB concentration exceeded the 1.0 mg/kg cleanup level in the second confirmation sample.
- At the former capacitor staging areas at SWMU 39-001(a), one discrete sample was collected at the center of each of the 17 previous decision units at a depth of 0.0 to 1.0 ft below the depth at which each decision unit was excavated during the 2009/2010 cleanup activities (i.e., 2.0 to 3.0 ft bgs or 4.0 to 5.0 ft bgs). Step-out samples were also collected at the six locations 5 ft out from the center of the middle decision units along the north, east, and south sides of the two former capacitor staging areas. In addition, two samples were collected from depths of 0.0 to 1.0 ft bgs and 1.0 to 1.5 ft bgs at one new sampling location (location 39-61652) in the northernmost decision unit of the northern capacitor staging area that was not accessible during the 2009/2010 investigation. Based on confirmation and extent sampling results, no soil removal was required at this site.
- At the former waste stockpile area at SWMU 39-001(b), the top 1 ft of soil was excavated from each of the previous four decision units where PCBs were detected at greater than 1.0 mg/kg but less than 50 mg/kg. Based on confirmation and extent sampling results, no additional soil removal was required at this site.
- At SWMU 39-007(a), the upper 2 ft of soil was removed within a 4-ft radius around sampling locations 39-10019 and 39-604854 where Aroclor-1254 and Aroclor-1260 concentrations were detected above 1.0 mg/kg in 2010. Based on confirmation and extent sampling results, no additional soil removal was required at this site.

6.2 Summary of Extent of Contamination

The confirmation sampling conducted at the former waste stockpile and capacitor staging areas during this ACA was intended to confirm that all residual waste has been removed from the sites. Therefore, defining vertical extent was not an objective at those sites.

Results of the lateral extent sampling conducted at the former waste stockpile areas associated with SWMUs 39-001(a) and 39-001(b), and the former capacitor staging areas associated with SWMU 39-001(a) confirmed no residual contamination present above residential SSLs or 1.0 mg/kg PCBs.

Lateral and vertical extent of the inorganic chemicals and organic chemicals were defined at SWMU 39-007(a) during the 2009 investigation (LANL 2010, 108500.11). The goal of the confirmation sampling was to confirm cleanup to less than 1 mg/kg PCBs at and around sampling locations 39-10019 and 39-604854. The PCB cleanup level of 1.0 mg/kg has been met at and around sampling locations 39-10019 and 39-604854 at SWMU 39-007(a).

7.0 RECOMMENDATIONS

The NMED approval of the areas of contamination designation at SWMUs 39-001(a) and SWMU 39-001(b), required all surface soil within the former waste stockpile areas and the capacitor staging areas not contain contamination in excess of residential SSLs/SALs or the 2005 Consent Order default PCB cleanup level of 1.0 mg/kg. Based on results of extent and confirmation sampling conducted in 2017 at the former waste stockpile areas at SWMUs 39-001(a) and 39-001(b), and the former capacitor staging areas at SWMUs 39-001(a), the area of contamination requirements have been met and no additional investigation or remediation activities are required.

Based on results of extent and confirmation sampling conducted in 2017 at SWMU 39-007(a), the PCB cleanup level of 1.0 mg/kg has been met; therefore no additional investigation or remediation activities are required.

8.0 REFERENCES AND MAP DATA SOURCES

8.1 References

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Copies of the master reference set are maintained at the New Mexico Environment Department Hazardous Waste Bureau and the Directorate. The set was developed to ensure that the administrative authority has all material needed to review this document, and it is updated with every document submitted to the administrative authority. Documents previously submitted to the administrative authority are not included.

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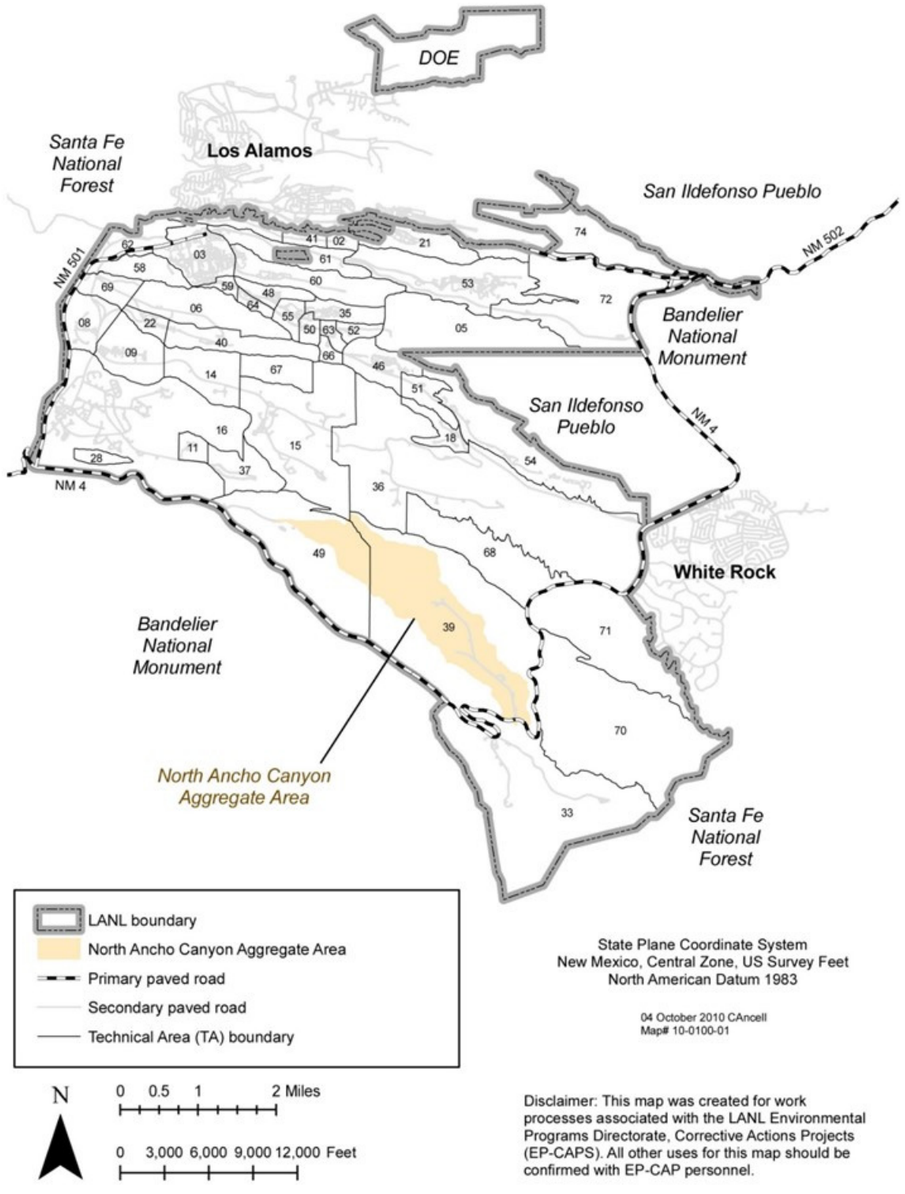


Figure 1.1-1 Location of the North Ancho Canyon Aggregate Area with respect to Laboratory technical areas and surrounding land holdings

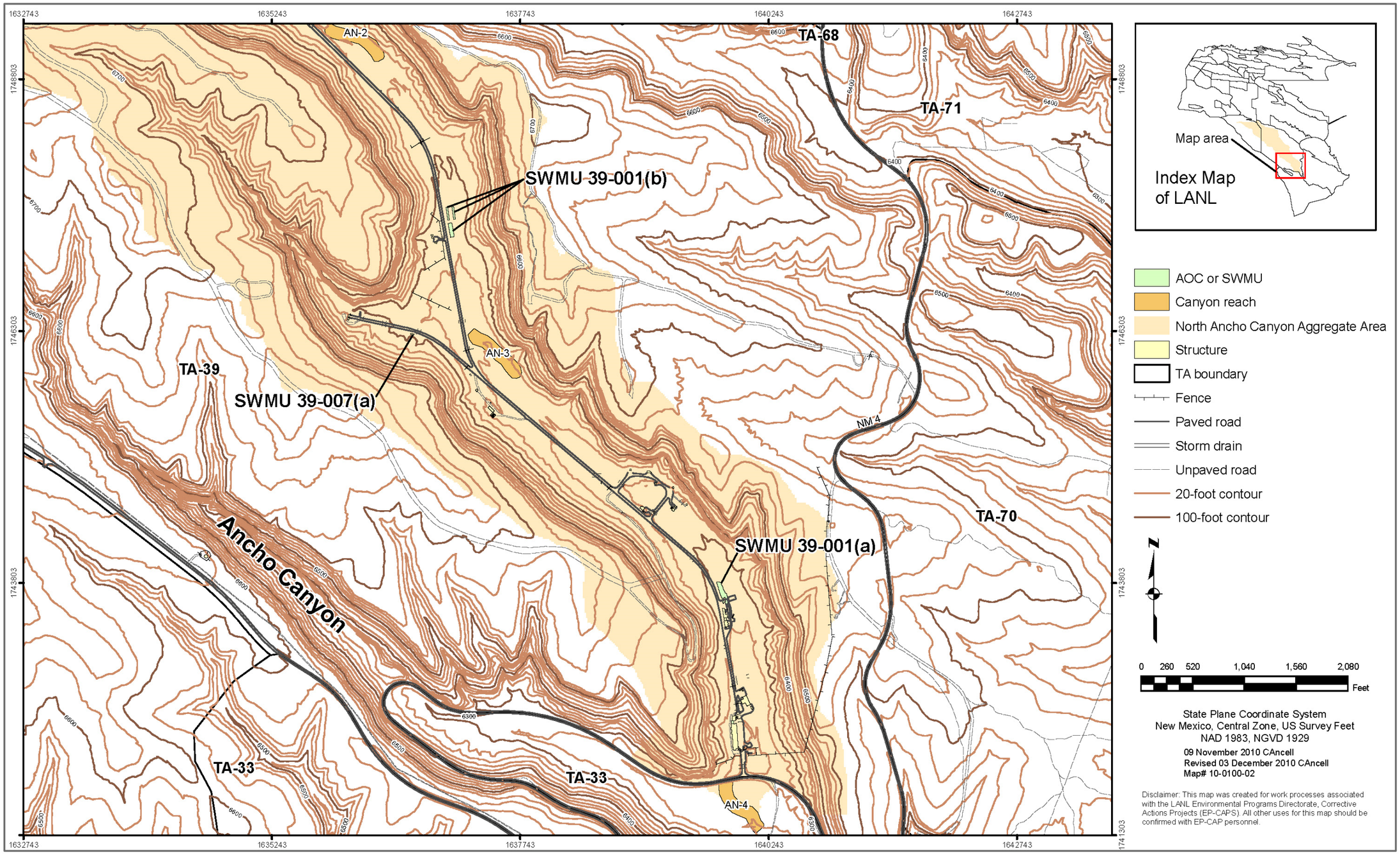


Figure 1.2-1 Location of former waste stockpile and capacitor staging areas at SWMUs 39-001(a), 39-001(b), and 39-007(a)

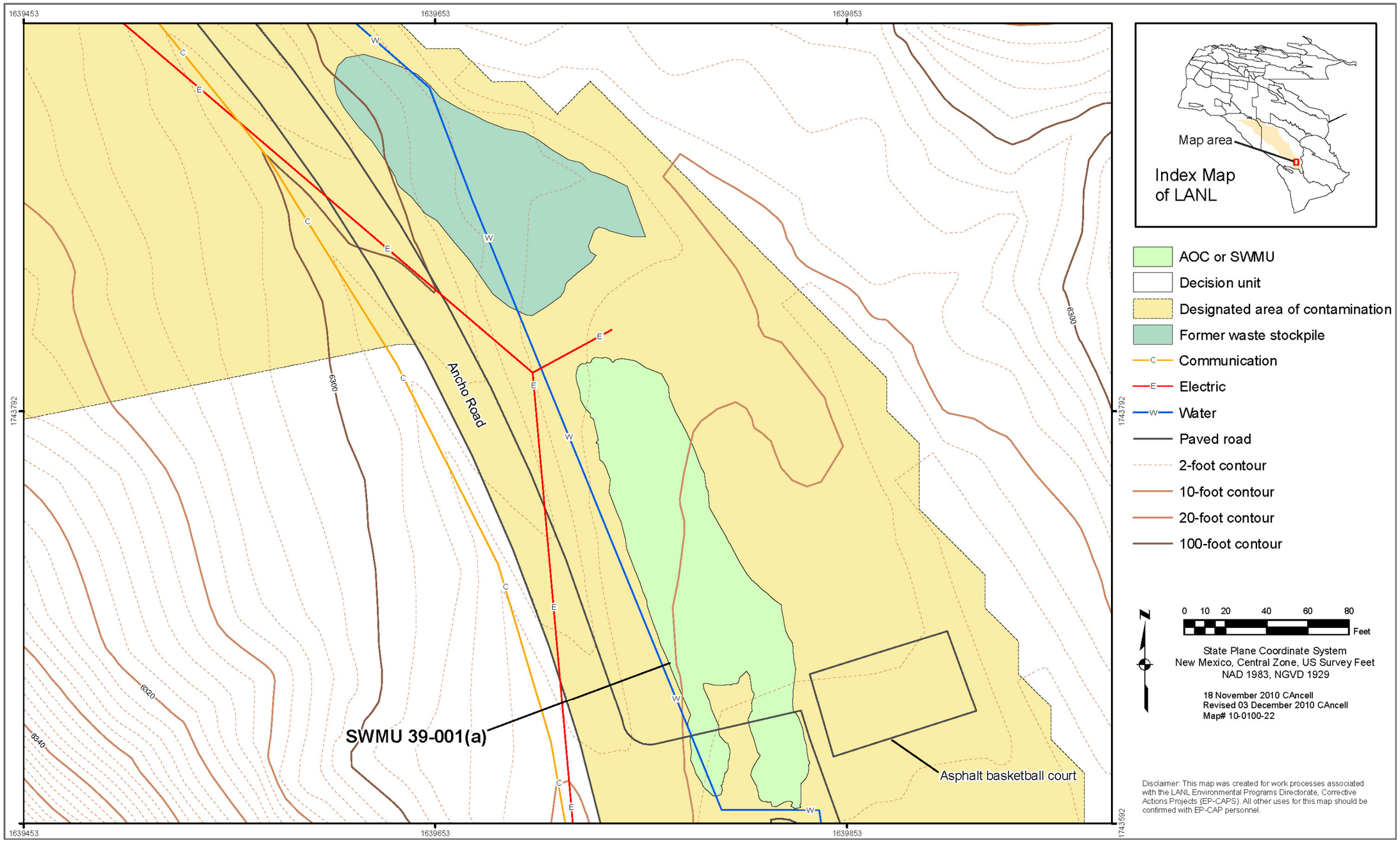


Figure 2.1-1 Location of former waste stockpile area at SWMU 39-001(a)

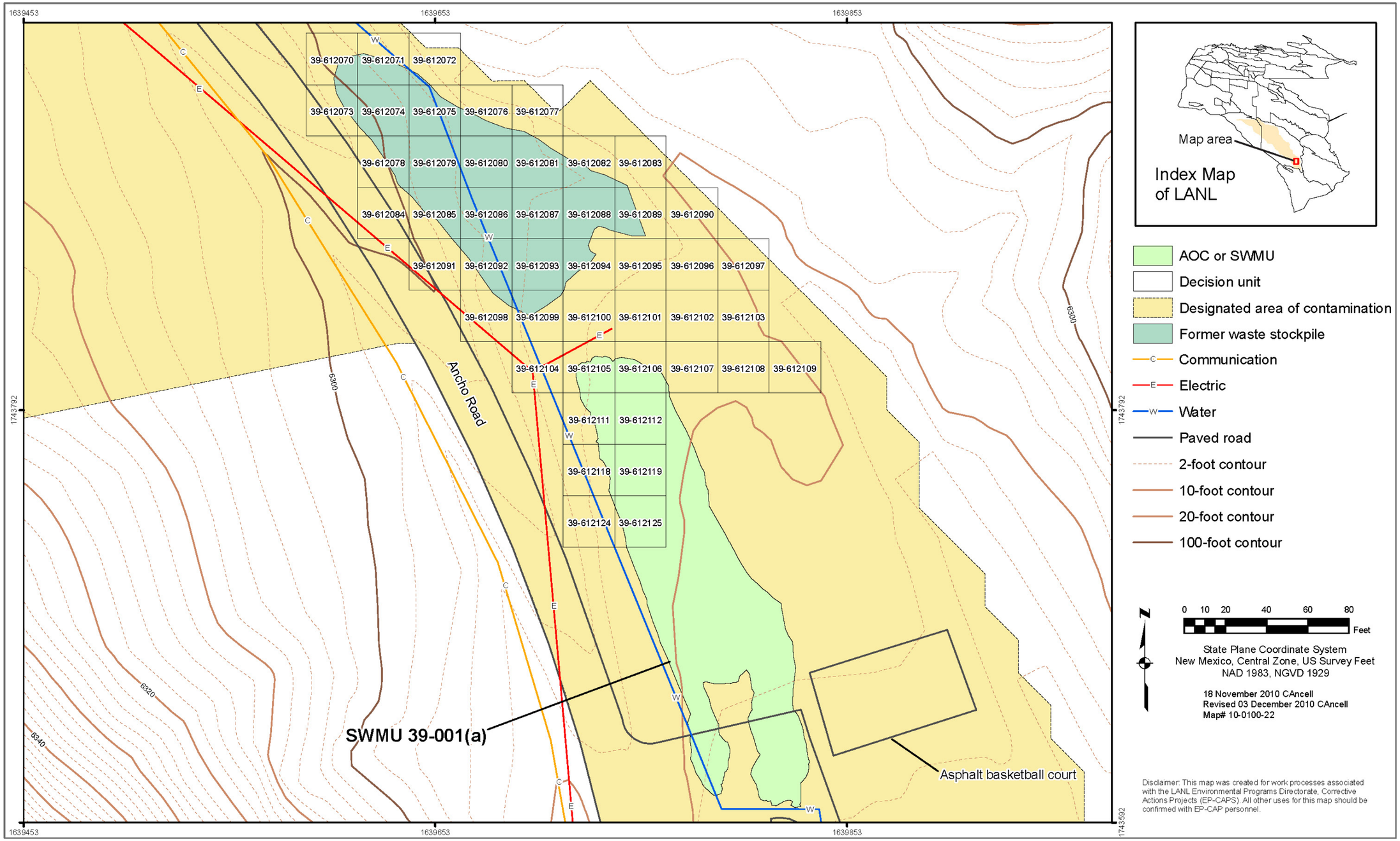


Figure 2.1-2 MI sampling locations at former waste stockpile area at SWMU 39-001(a)

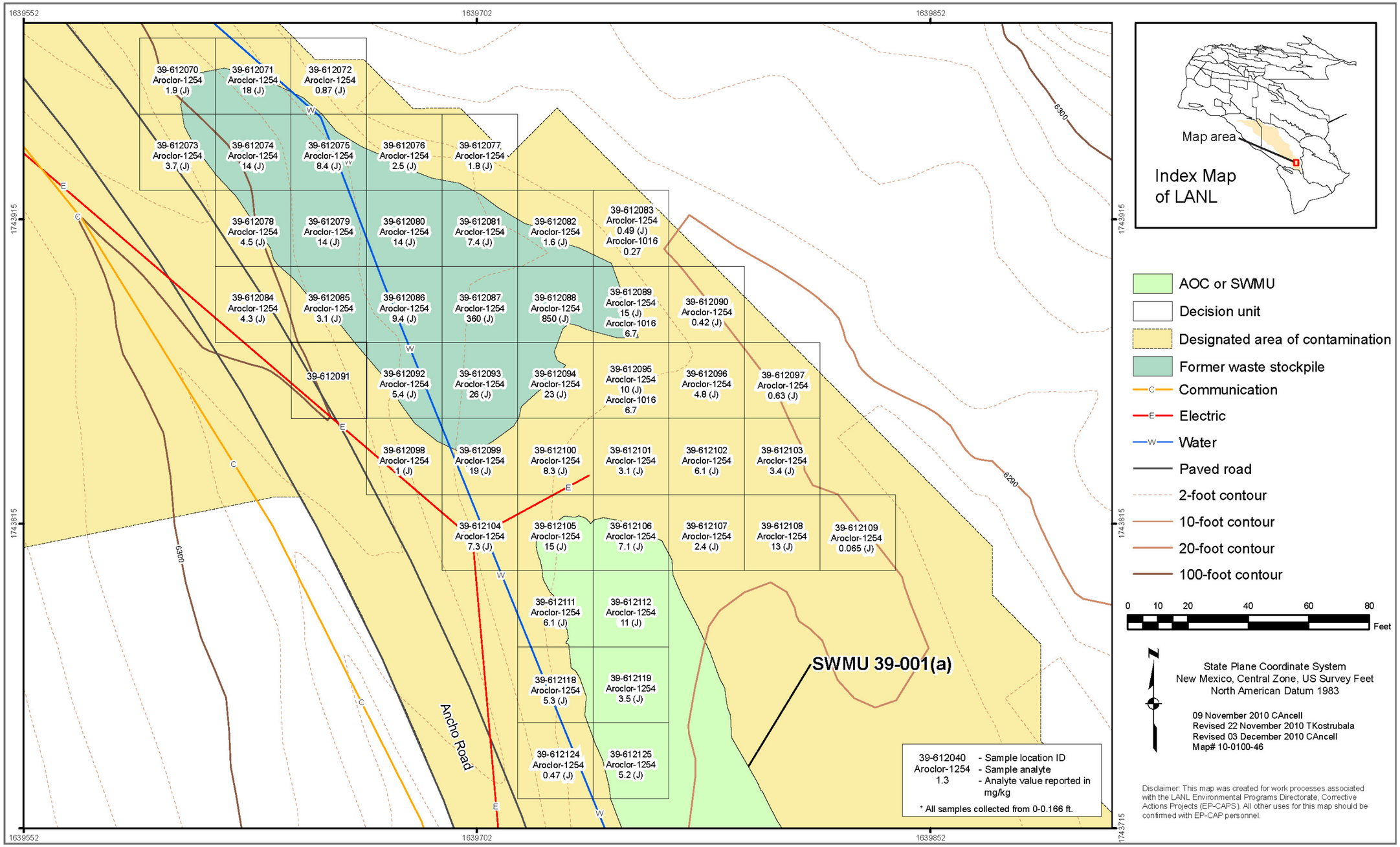


Figure 2.1-3 PCBs detected in 2010 at the former waste stockpile area at SWMU 39-001(a)

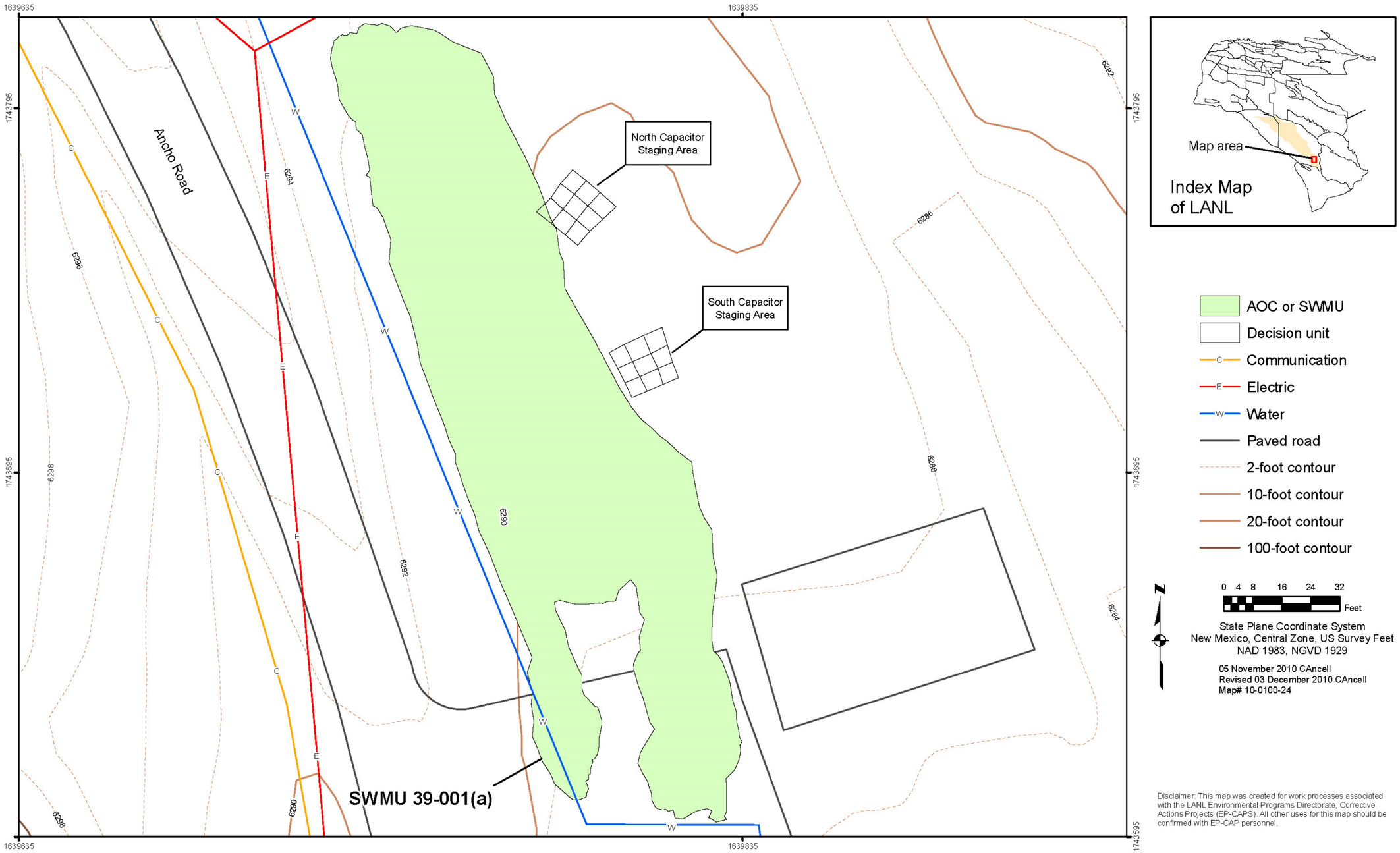


Figure 2.2-1 Location of former capacitor staging areas at SWMU 39-001(a)

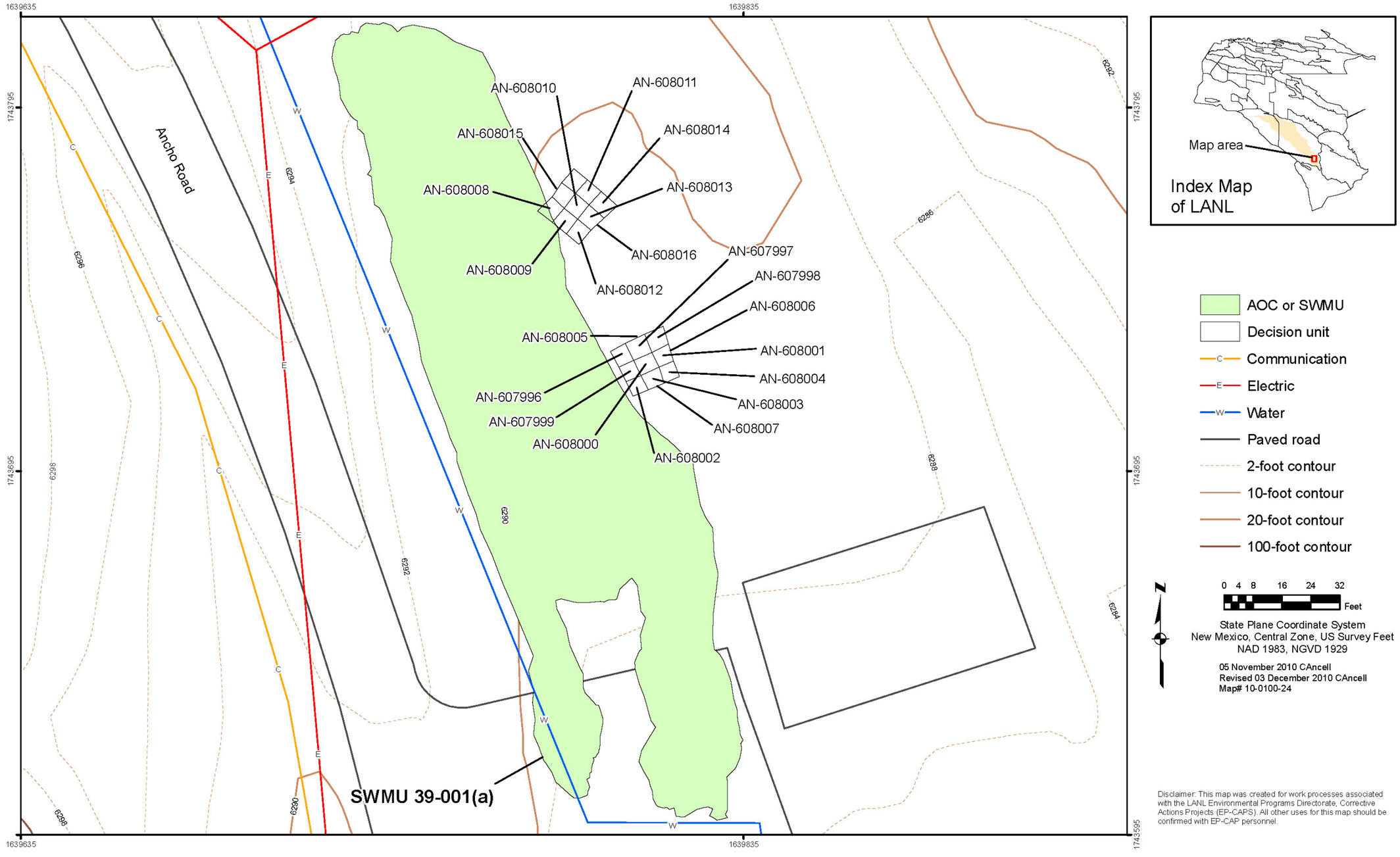


Figure 2.2-2 MI sampling locations at former capacitor staging areas at SWMU 39-001(a)

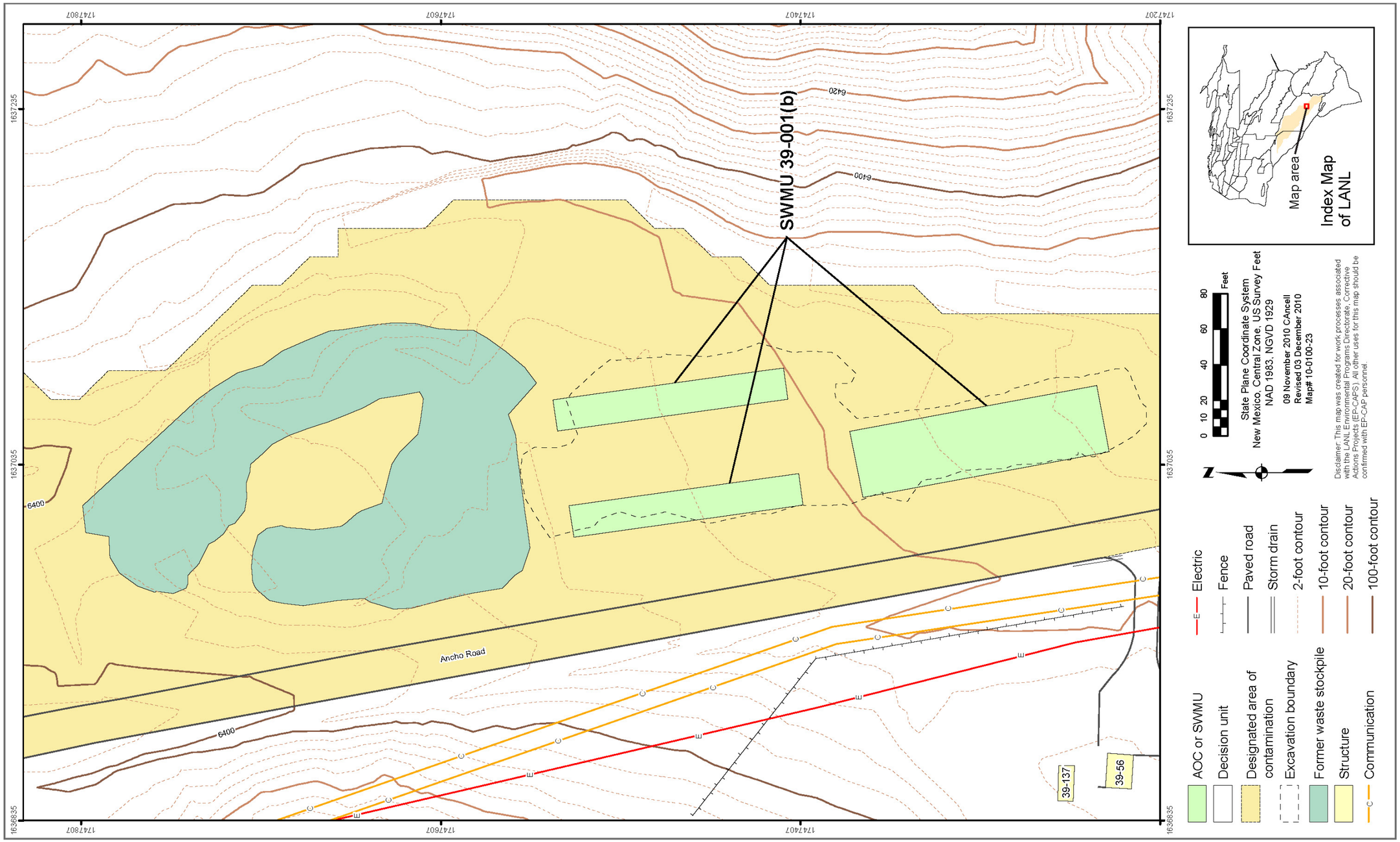


Figure 2.3-1 Location of former waste stockpile area at SWMU 39-001(b)

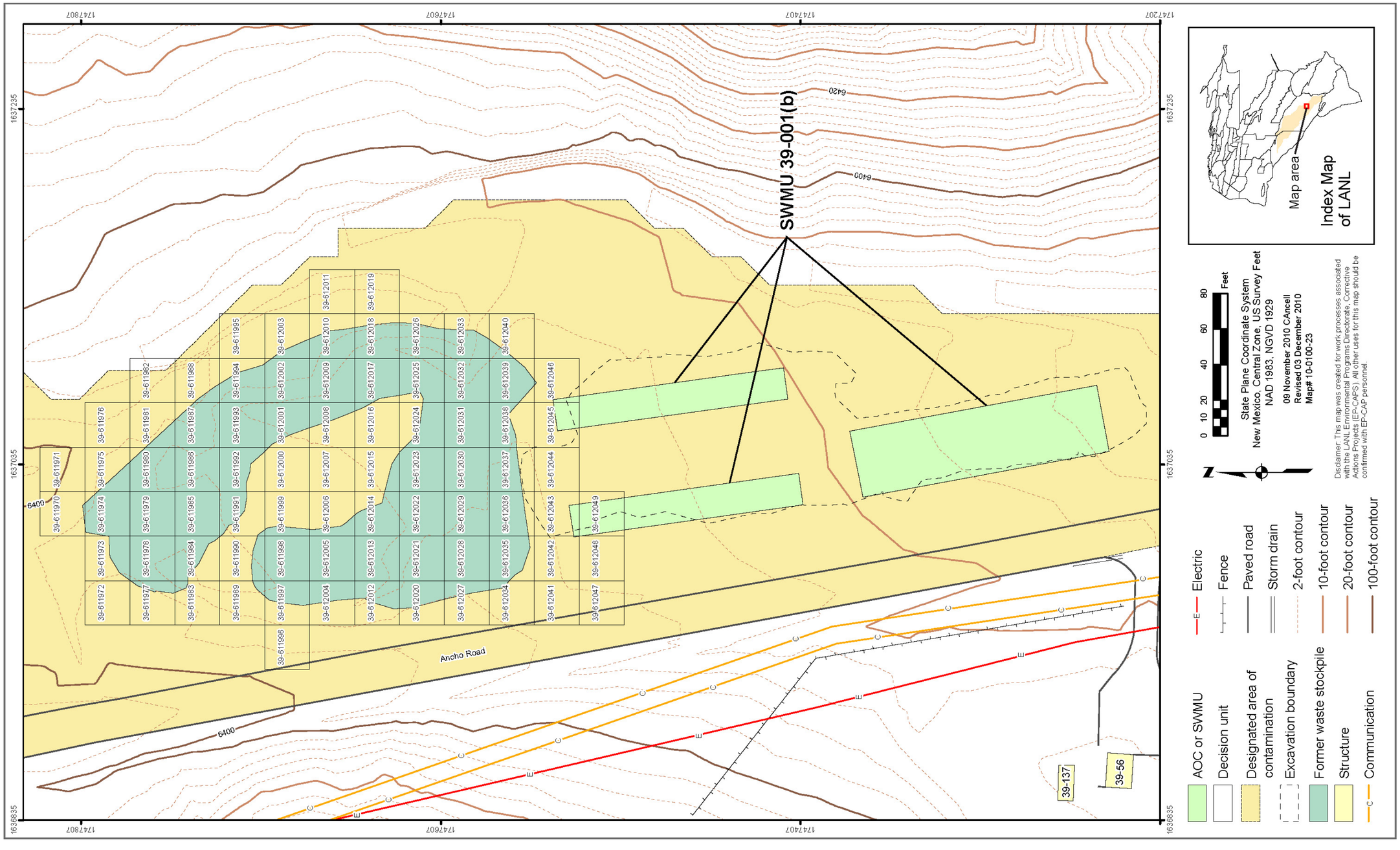


Figure 2.3-2 MI sampling locations at former waste stockpile area at SWMU 39-001(b)

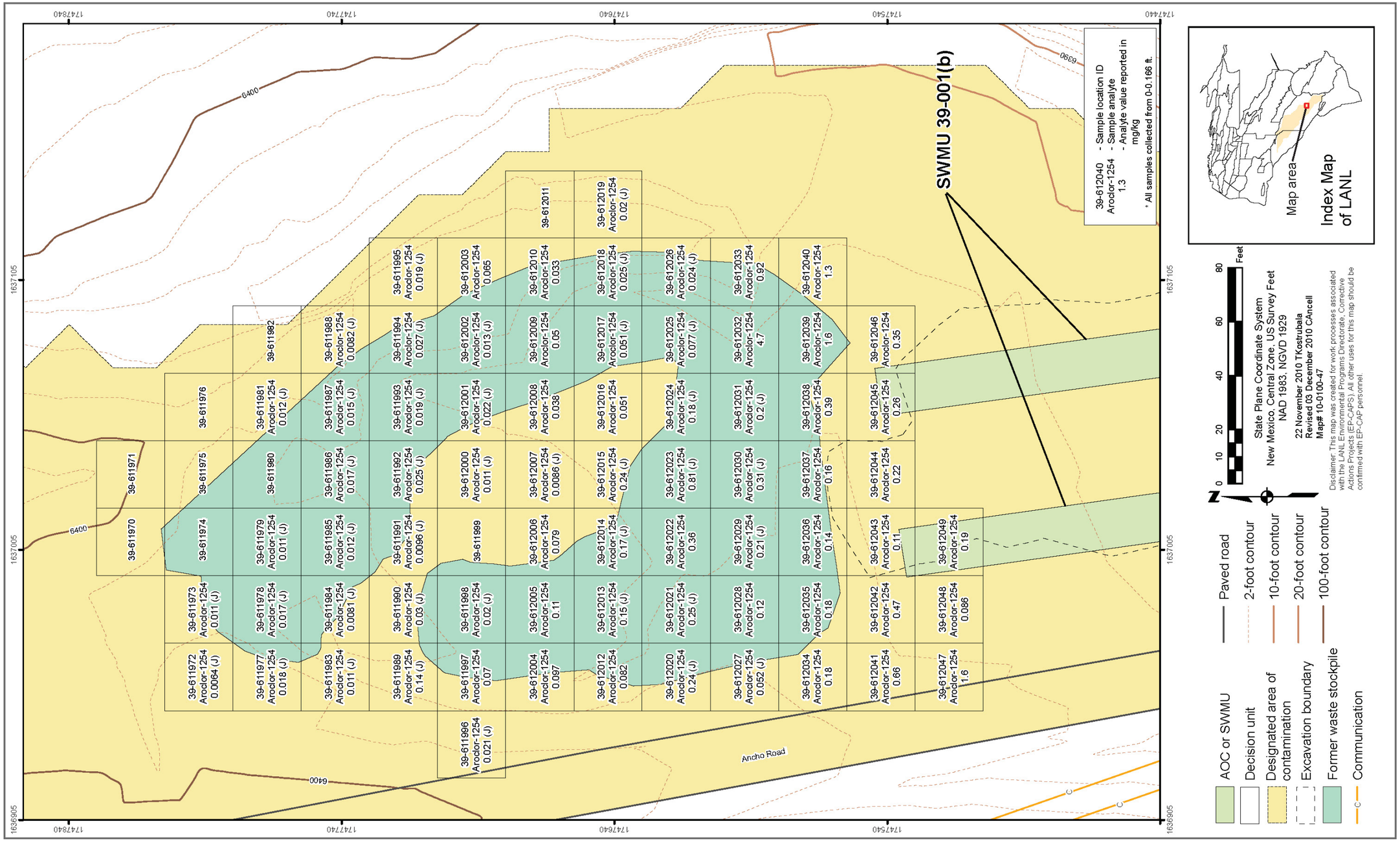


Figure 2.3-3 PCBs detected in 2010 at the former waste stockpile area at SWMU 39-001(b)

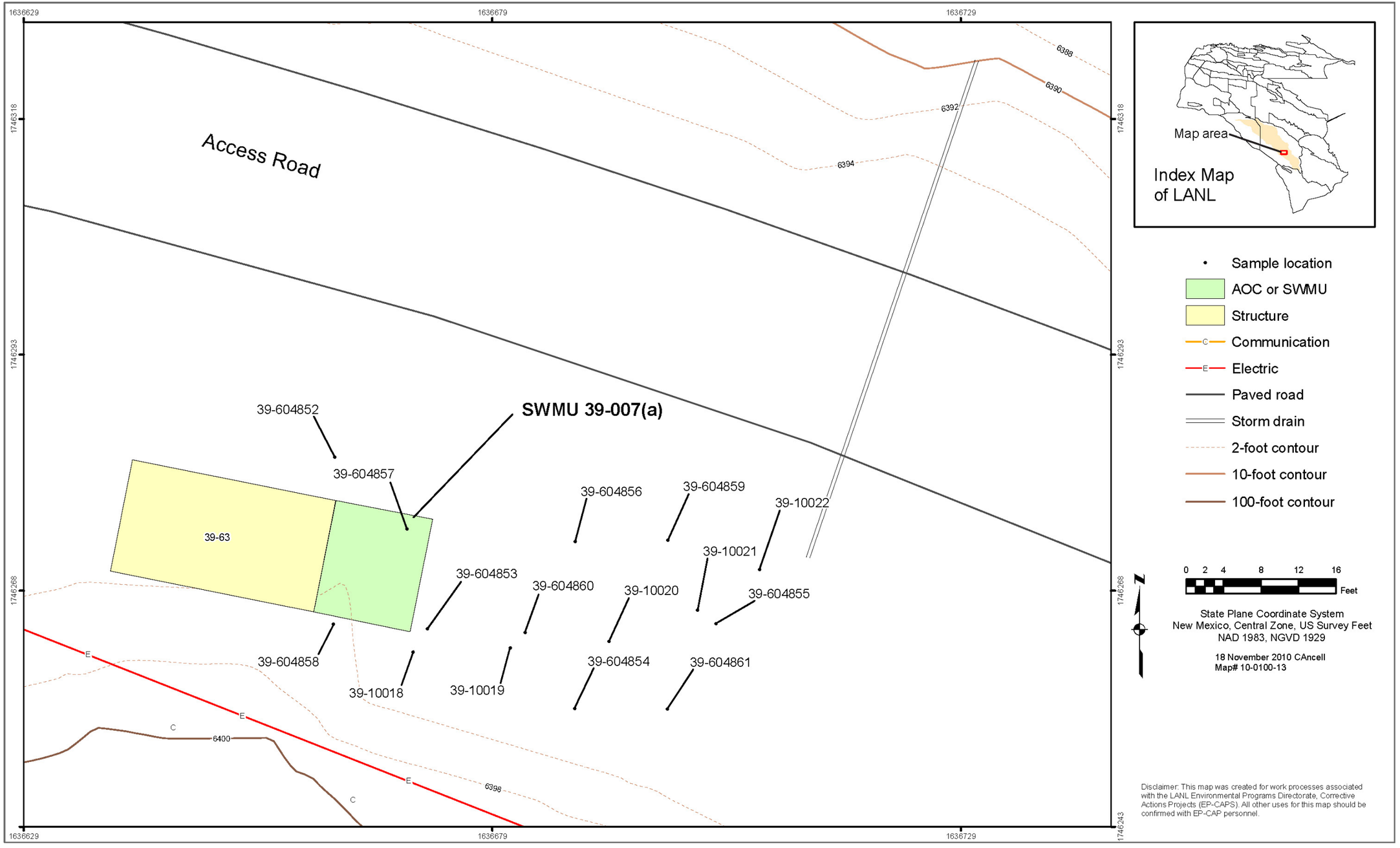


Figure 2.4-1 Site features and 2009 sampling locations at SWMU 39-007(a)

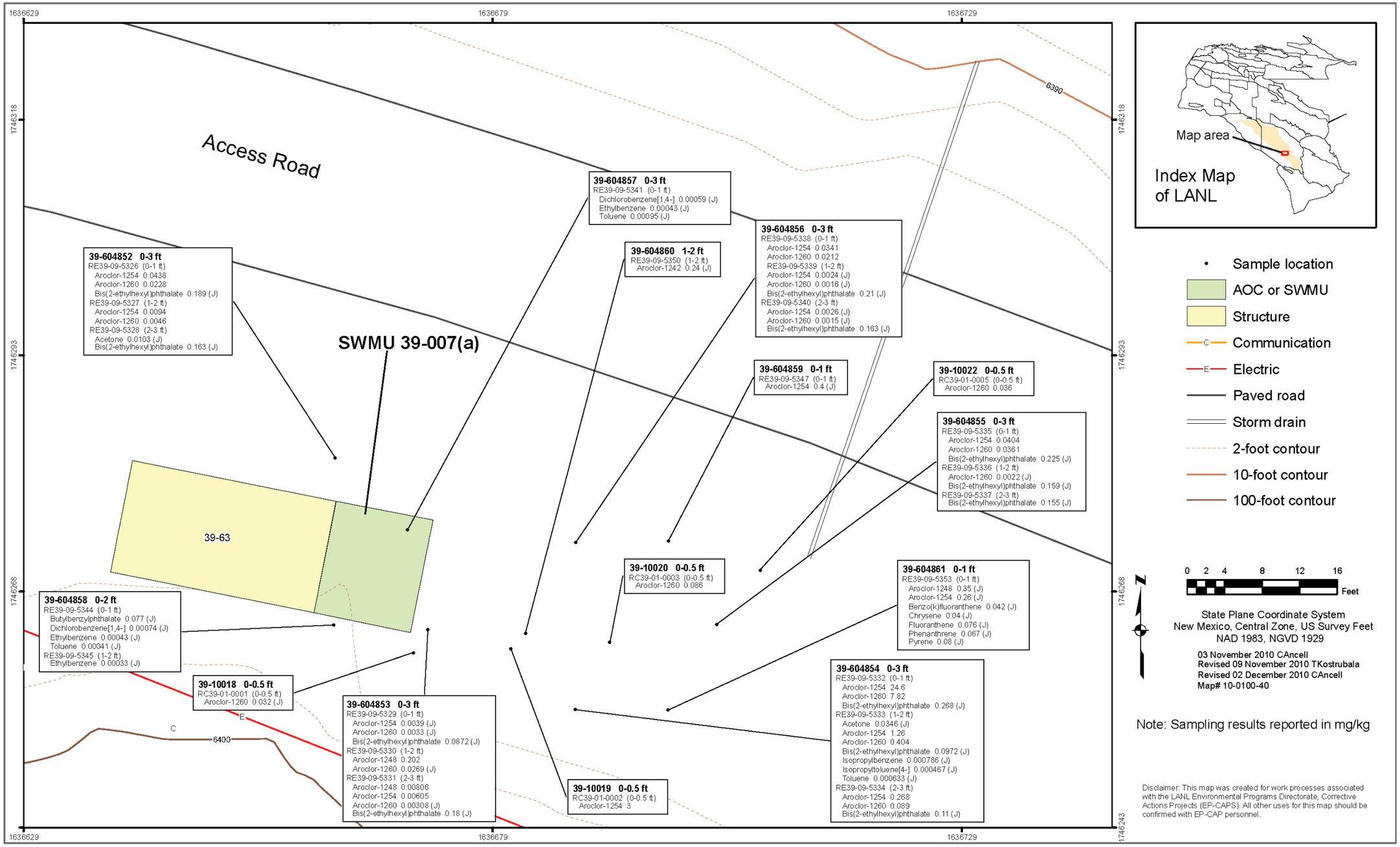


Figure 2.4-2 Organic chemicals detected in 2009 at the former storage area at SWMU 39-007(a)

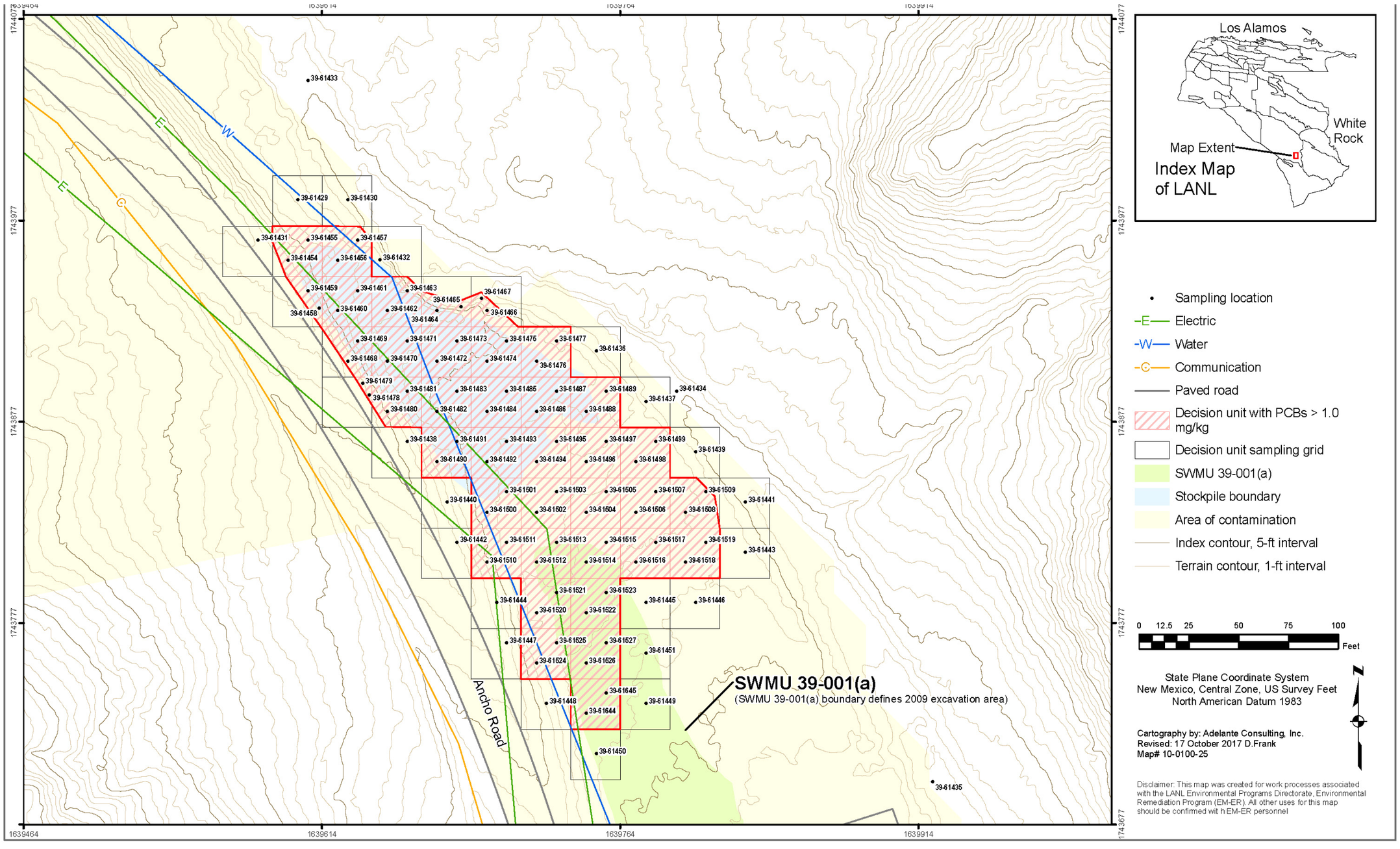


Figure 5.1-1 Sampling locations at the former waste stockpile area at SWMU 39-001(a)

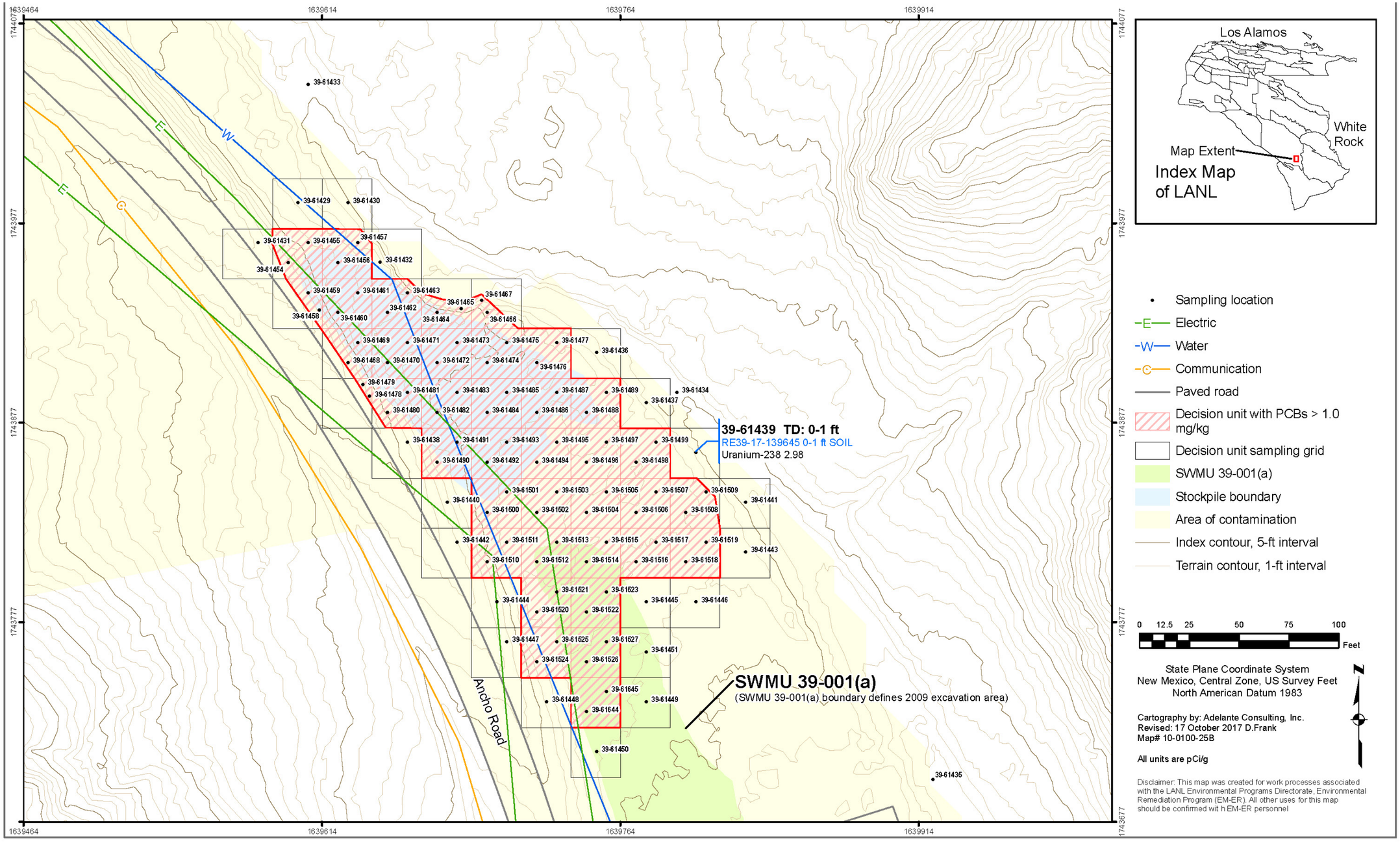


Figure 5.1-2 Uranium-238 detected above BVs at the former waste stockpile area at SWMU 39-001(a)

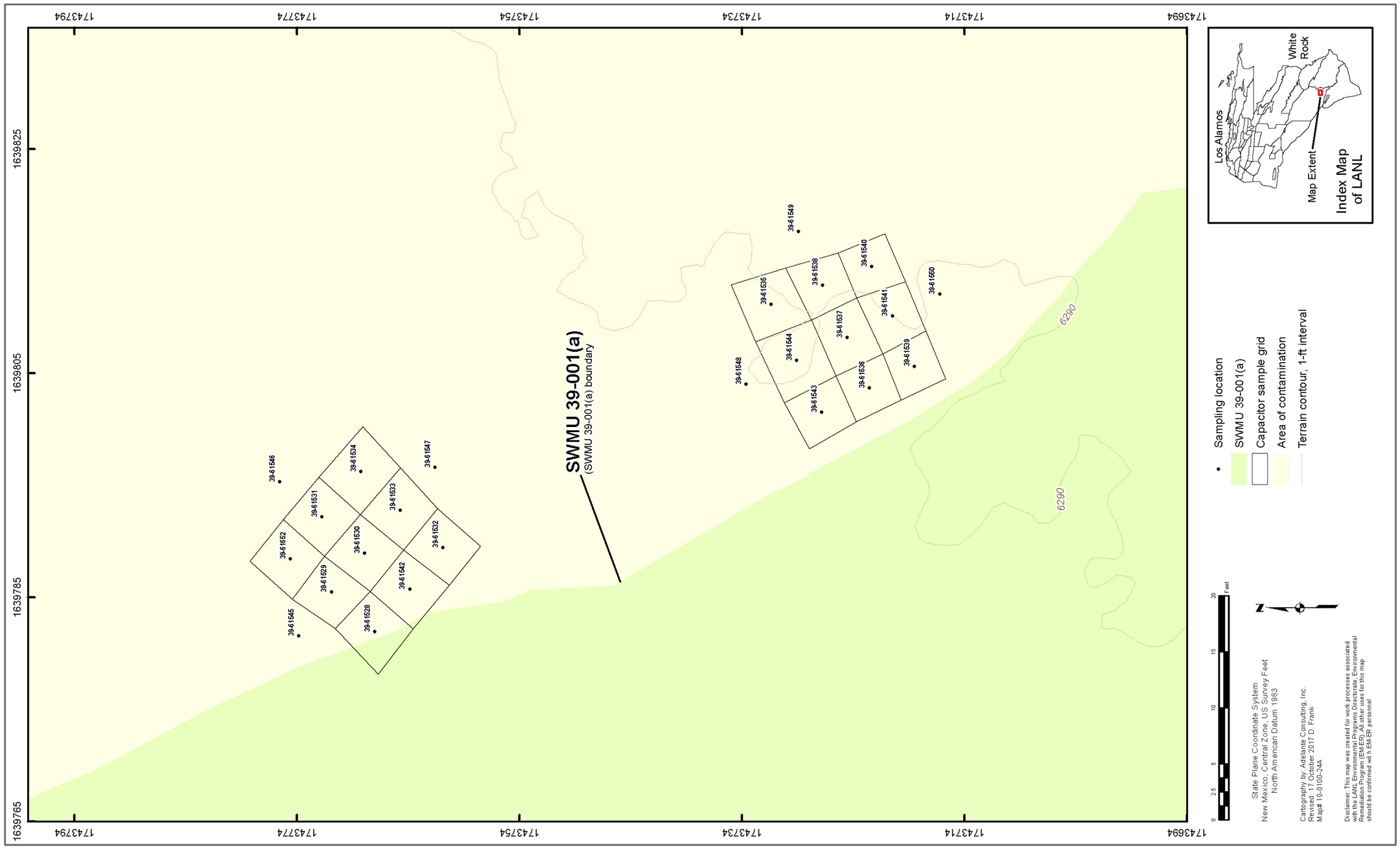


Figure 5.2-1 Sampling locations at the former capacitor staging areas at SWMU 39-001(a)

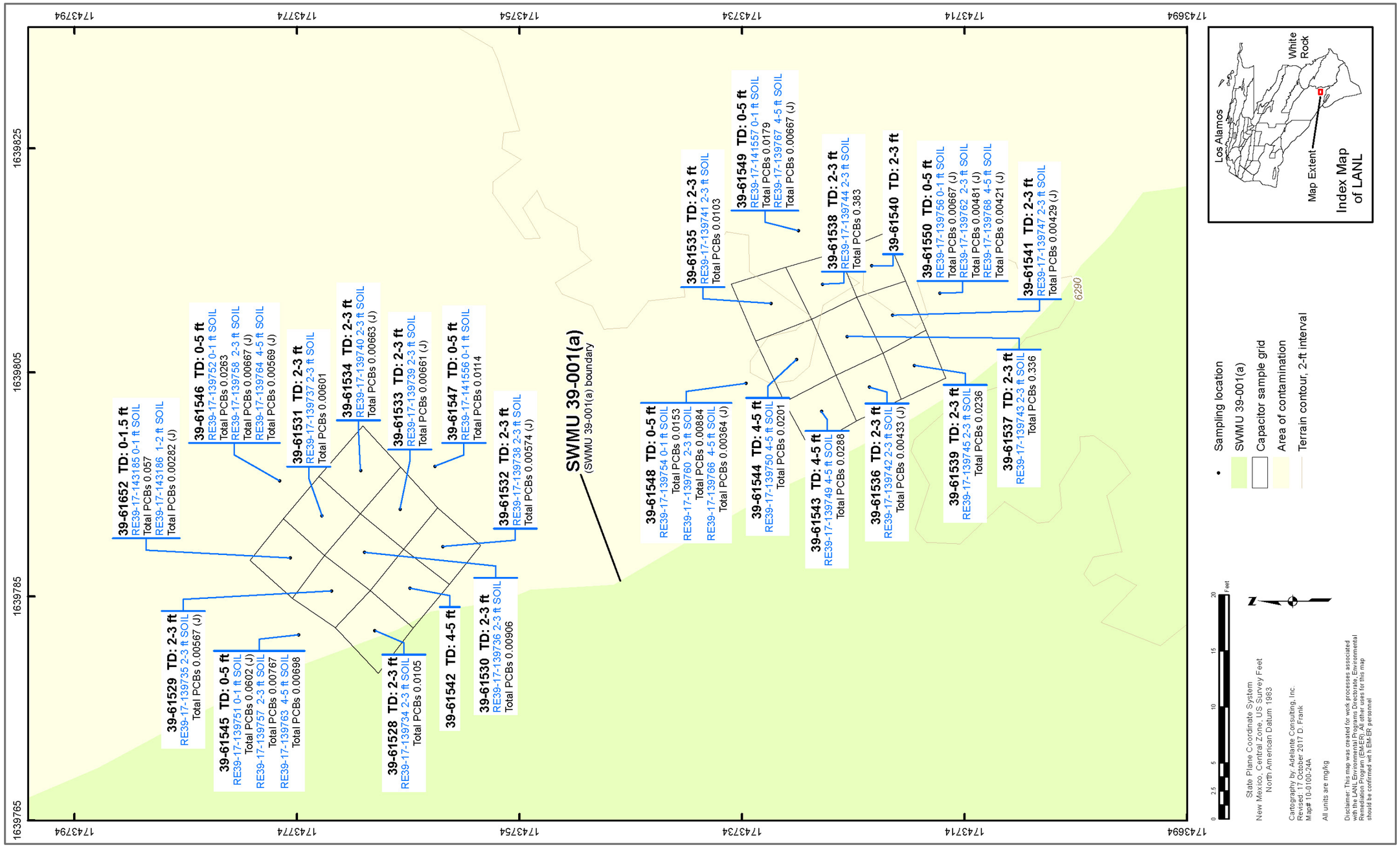


Figure 5.2-2 PCBs detected at the former capacitor staging areas at SWMU 39-001(a)

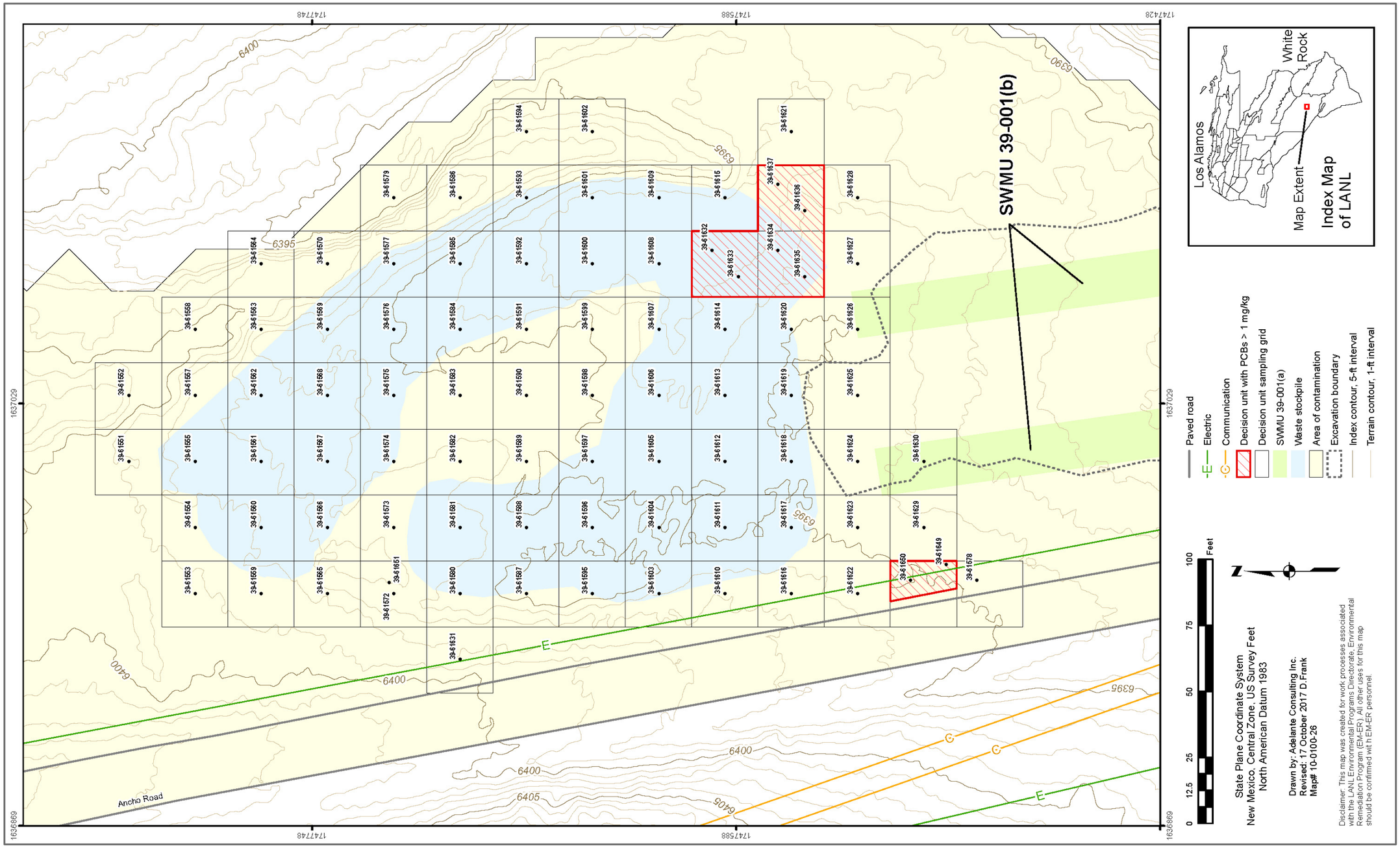


Figure 5.3-1 Sampling locations at the former waste stockpile area at SWMU 39-001(b)

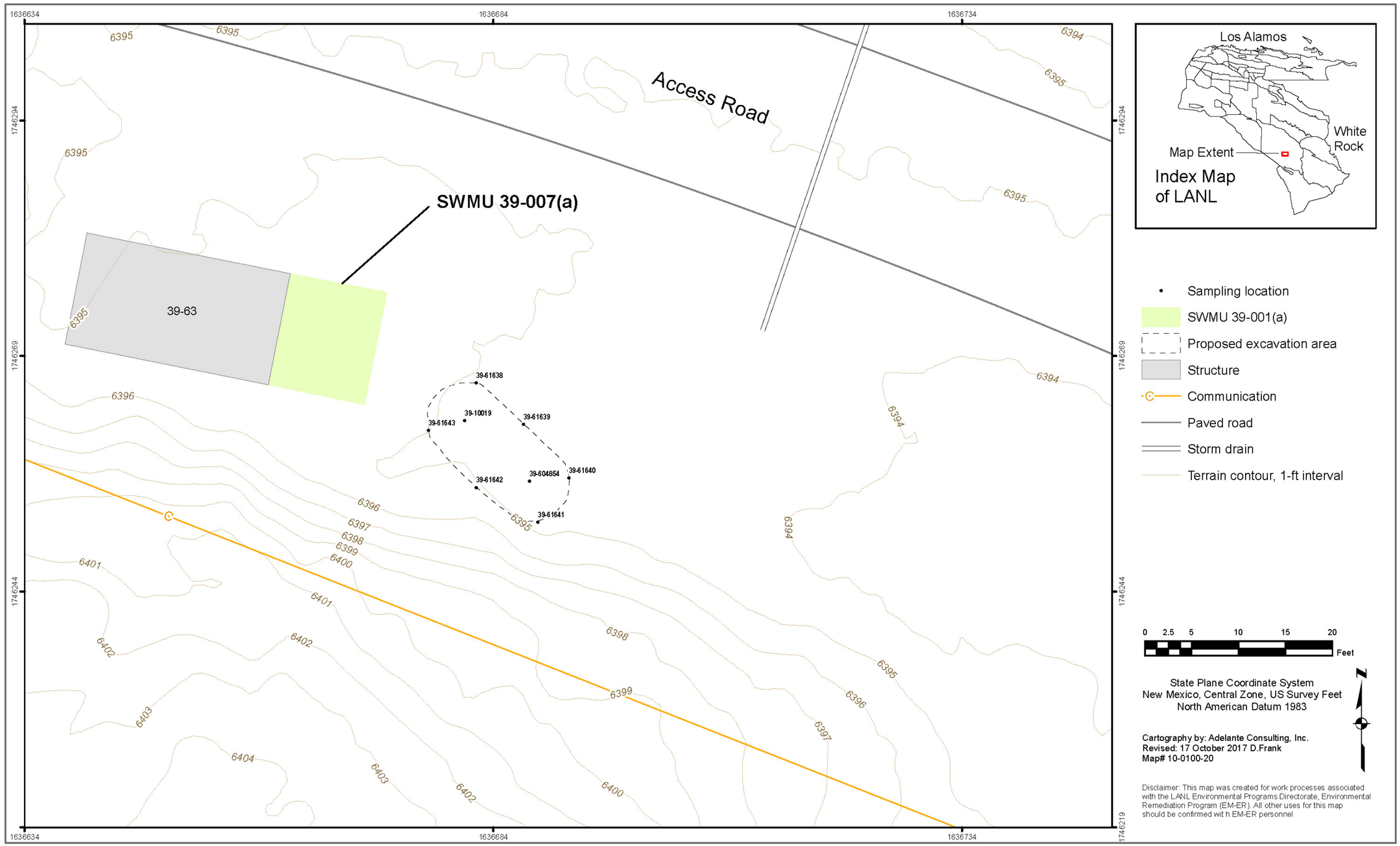


Figure 5.4-1 Sampling locations at the former storage area at SWMU 39-007(a)

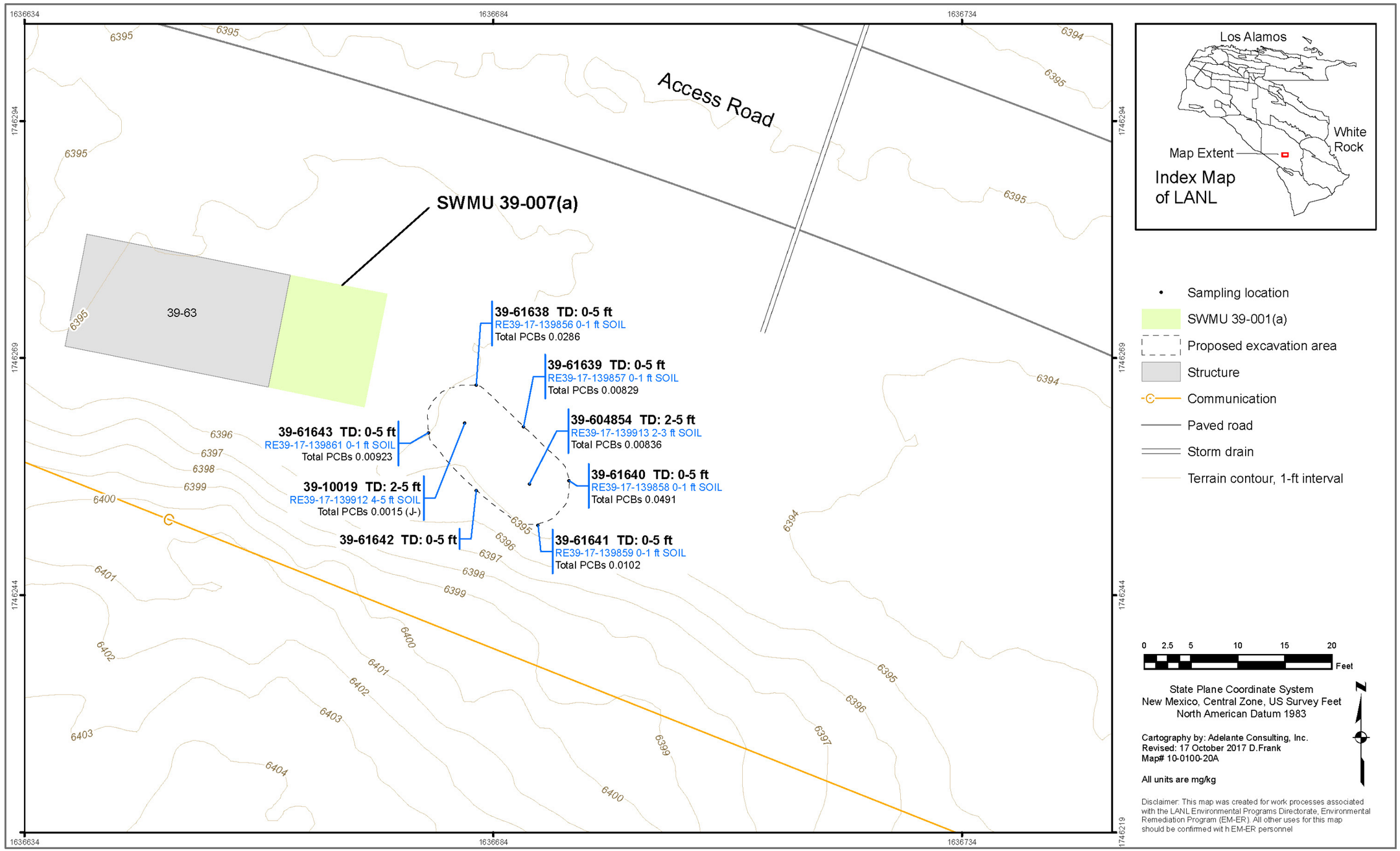


Figure 5.4-2 PCBs detected at the former storage area at SWMU 39-007(a)

Table 1.3-1
Sites Remediated in North Ancho Canyon Aggregate Area

Site	Investigation Results
Sites Included in this Report	
Former Waste Stockpile Area at SWMU 39-001(a)	Aroclor-1016 and Aroclor-1254 remediated to below 1 mg/kg cleanup level; lead remediated to below 400 mg/kg residential SSL; and uranium-238 remediated to below residential SAL
Former Capacitor Staging Areas at SWMU 39-001(a)	Aroclors-1014, -1242, -1248, and -1260 remediated to below 1 mg/kg cleanup level
Former Waste Stockpile Area at SWMU 39-001(b)	Aroclor-1254 and Aroclor-1260 remediated to below 1 mg/kg cleanup level; SVOCs remediated to below residential SSLs
SWMU 39-007(a)	Aroclor-1254 and Aroclor-1260 remediated to below 1 mg/kg cleanup level

Table 2.1-1
Samples Collected and PCB Analysis Requested in 2010 at Former Waste Stockpile Area at SWMU 39-001(a)

Sample ID	Location ID	Depth (ft)	Media	PCBs
RE39-10-16435	39-612070	0.0–0.17	Soil	10-3258*
RE39-10-16436	39-612071	0.0–0.17	Soil	10-3258
RE39-10-16437	39-612072	0.0–0.17	Soil	10-3258
RE39-10-16438	39-612073	0.0–0.17	Soil	10-3258
RE39-10-16439	39-612074	0.0–0.17	Soil	10-3258
RE39-10-16440	39-612075	0.0–0.17	Soil	10-3258
RE39-10-16441	39-612076	0.0–0.17	Soil	10-3258
RE39-10-16442	39-612077	0.0–0.17	Soil	10-3258
RE39-10-16443	39-612078	0.0–0.17	Soil	10-3258
RE39-10-16444	39-612079	0.0–0.17	Soil	10-3258
RE39-10-16445	39-612080	0.0–0.17	Soil	10-3258
RE39-10-16446	39-612081	0.0–0.17	Soil	10-3258
RE39-10-16447	39-612082	0.0–0.17	Soil	10-3258
RE39-10-16448	39-612083	0.0–0.17	Soil	10-3258
RE39-10-16449	39-612084	0.0–0.17	Soil	10-3258
RE39-10-16450	39-612085	0.0–0.17	Soil	10-3258
RE39-10-16451	39-612086	0.0–0.17	Soil	10-3258
RE39-10-16452	39-612087	0.0–0.17	Soil	10-3258
RE39-10-16453	39-612088	0.0–0.17	Soil	10-3258
RE39-10-16454	39-612089	0.0–0.17	Soil	10-3258
RE39-10-16455	39-612090	0.0–0.17	Soil	10-3257
RE39-10-16456	39-612091	0.0–0.17	Soil	10-3257
RE39-10-16457	39-612092	0.0–0.17	Soil	10-3257
RE39-10-16458	39-612093	0.0–0.17	Soil	10-3257
RE39-10-16459	39-612094	0.0–0.17	Soil	10-3257

Table 2.1-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	PCBs
RE39-10-16460	39-612095	0.0–0.17	Soil	10-3257
RE39-10-16461	39-612096	0.0–0.17	Soil	10-3257
RE39-10-16462	39-612097	0.0–0.17	Soil	10-3257
RE39-10-16463	39-612098	0.0–0.17	Soil	10-3257
RE39-10-16464	39-612099	0.0–0.17	Soil	10-3257
RE39-10-16465	39-612100	0.0–0.17	Soil	10-3257
RE39-10-16466	39-612101	0.0–0.17	Soil	10-3257
RE39-10-16467	39-612102	0.0–0.17	Soil	10-3257
RE39-10-16468	39-612103	0.0–0.17	Soil	10-3257
RE39-10-16469	39-612104	0.0–0.17	Soil	10-3276
RE39-10-16470	39-612105	0.0–0.17	Soil	10-3276
RE39-10-16471	39-612106	0.0–0.17	Soil	10-3257
RE39-10-16472	39-612107	0.0–0.17	Soil	10-3266
RE39-10-16473	39-612108	0.0-0.17	Soil	10-3266
RE39-10-16474	39-612109	0.0–0.17	Soil	10-3266
RE39-10-16476	39-612111	0.0–0.17	Soil	10-3266
RE39-10-16477	39-612112	0.0–0.17	Soil	10-3266
RE39-10-16483	39-612118	0.0–0.17	Soil	10-3266
RE39-10-16484	39-612119	0.0–0.17	Soil	10-3266
RE39-10-16489	39-612124	0.0–0.17	Soil	10-3266
RE39-10-16490	39-612125	0.0–0.17	Soil	10-3266

* Analytical request number.

Table 2.1-2
PCBs Detected in 2010 at the Former Waste Stockpile Area at SWMU 39-001(a)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1016	Aroclor-1254
Residential SSL[a]				**3.98**	**1.14**[b]
RE39-10-16435	39-612070	0–0.17	Soil	—[c]	**1.9 (J)**
RE39-10-16436	39-612071	0–0.17	Soil	—	**18 (J)**
RE39-10-16437	39-612072	0–0.17	Soil	—	0.87 (J)
RE39-10-16438	39-612073	0–0.17	Soil	—	**3.7 (J)**
RE39-10-16439	39-612074	0–0.17	Soil	—	**14 (J)**
RE39-10-16440	39-612075	0–0.17	Soil	—	**8.4 (J)**
RE39-10-16441	39-612076	0–0.17	Soil	—	**2.5 (J)**
RE39-10-16442	39-612077	0–0.17	Soil	—	**1.8 (J)**
RE39-10-16443	39-612078	0–0.17	Soil	—	**4.5 (J)**
RE39-10-16444	39-612079	0–0.17	Soil	—	**14 (J)**
RE39-10-16445	39-612080	0–0.17	Soil	—	**14 (J)**

Table 2.1-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1016	Aroclor-1254
Residential SSL[a]				**3.98**	**1.14**[b]
RE39-10-16446	39-612081	0–0.17	Soil	—	**7.4 (J)**
RE39-10-16447	39-612082	0–0.17	Soil	—	**1.6 (J)**
RE39-10-16448	39-612083	0–0.17	Soil	0.27	0.49 (J)
RE39-10-16449	39-612084	0–0.17	Soil	—	**4.3 (J)**
RE39-10-16450	39-612085	0–0.17	Soil	—	**3.1 (J)**
RE39-10-16451	39-612086	0–0.17	Soil	—	**9.4 (J)**
RE39-10-16452	39-612087	0–0.17	Soil	—	**360 (J)**
RE39-10-16453	39-612088	0–0.17	Soil	—	**850 (J)**
RE39-10-16454	39-612089	0–0.17	Soil	**6.7**	**15 (J)**
RE39-10-16455	39-612090	0–0.17	Soil	—	0.42 (J)
RE39-10-16457	39-612092	0–0.17	Soil	—	**5.4 (J)**
RE39-10-16458	39-612093	0–0.17	Soil	—	**26 (J)**
RE39-10-16459	39-612094	0–0.17	Soil	—	**23 (J)**
RE39-10-16460	39-612095	0–0.17	Soil	**6.7**	**10 (J)**
RE39-10-16461	39-612096	0–0.17	Soil	—	**4.8 (J)**
RE39-10-16462	39-612097	0–0.17	Soil	—	0.63 (J)
RE39-10-16463	39-612098	0.0–0.17	Soil	—	1.0 (J)
RE39-10-16464	39-612099	0.0–0.17	Soil	—	**19 (J)**
RE39-10-16465	39-612100	0.0–0.17	Soil	—	**8.3 (J)**
RE39-10-16466	39-612101	0.0–0.17	Soil	—	**3.1 (J)**
RE39-10-16467	39-612102	0.0–0.17	Soil	—	**6.1 (J)**
RE39-10-16468	39-612103	0.0–0.17	Soil	—	**3.4 (J)**
RE39-10-16469	39-612104	0.0–0.17	Soil	—	**7.3 (J)**
RE39-10-16470	39-612105	0.0–0.17	Soil	—	**15 (J)**
RE39-10-16471	39-612106	0.0–0.17	Soil	—	**7.1 (J)**
RE39-10-16472	39-612107	0.0–0.17	Soil	—	**2.4 (J)**
RE39-10-16473	39-612108	0.0–0.17	Soil	—	**13 (J)**
RE39-10-16474	39-612109	0.0–0.17	Soil	—	0.065 (J)
RE39-10-16476	39-612111	0.0–0.17	Soil	—	**6.1 (J)**
RE39-10-16477	39-612112	0.0–0.17	Soil	—	**11 (J)**
RE39-10-16483	39-612118	0.0–0.17	Soil	—	**5.3 (J)**
RE39-10-16484	39-612119	0.0–0.17	Soil	—	**3.5 (J)**
RE39-10-16489	39-612124	0.0–0.17	Soil	—	0.47 (J)
RE39-10-16490	39-612125	0.0–0.17	Soil	—	**5.2 (J)**

Notes: Units are in mg/kg. Data qualifiers are defined in Appendix A. Shading denotes sample locations excavated during 2017 cleanup activities.

[a] SSLs from NMED (2017, 602273).

[b] SSL is lower of carcinogenic and noncarcinogenic SSLs.

[c] — = Not detected.

Table 2.2-1
Samples Collected and PCB Analysis Requested in
2009/2010 at the Former Capacitor Staging Areas at SWMU 39-001(a)

Sample ID	Location ID	Depth (ft)	Media	Sample Type	PCBs
Northern Capacitor Staging Area					
RE39-09-10266	AN-608008	0.0–0.17	Soil	MI	09-2748*
CAAN-09-12435	AN-608008	2.0–2.17	Soil	MI	09-3139
CAAN-09-12436	AN-608009	2.0–2.17	Soil	MI	09-3139
RE39-10-3954	AN-608009	4.0–4.17	Soil	MI	10-393
RE39-09-10267	AN-608010	0.0–0.17	Soil	MI	09-2748
CAAN-09-12437	AN-608010	2.0–2.17	Soil	MI	09-3139
CAAN-09-12438	AN-608011	2.0–2.17	Soil	MI	09-3139
CAAN-09-12439	AN-608012	2.0–2.17	Soil	MI	09-3138
RE39-09-10265	AN-608013	0.0–0.17	Soil	MI	09-2748
CAAN-09-12440	AN-608013	2.0–2.17	Soil	MI	09-3138
RE39-09-10264	AN-608014	0.0–0.17	Soil	MI	09-2748
CAAN-09-12441	AN-608014	2.0–2.17	Soil	MI	09-3138
CAAN-09-12442	AN-608015	2.0–2.17	Soil	Sidewall MI	09-3138
CAAN-09-12443	AN-608016	2.0–2.17	Soil	Sidewall MI	09-3138
Southern Capacitor Staging Area					
RE39-09-10276	AN-607996	0.0–0.17	Soil	MI	09-2748
CAAN-09-12423	AN-607996	2.0–2.17	Soil	MI	09-3139
RE39-10-3952	AN-607996	4.0–4.17	Soil	MI	10-393
RE39-09-10275	AN-607997	0.0–0.17	Soil	MI	09-2748
CAAN-09-12424	AN-607997	2.0–2.17	Soil	MI	09-3139
RE39-10-3953	AN-607997	4.0–4.17	Soil	MI	10-393
RE39-09-10274	AN-607998	0.0–0.17	Soil	MI	09-2748
CAAN-09-12425	AN-607998	2.0–2.17	Soil	MI	09-3139
RE39-09-10273	AN-607999	0.0–0.17	Soil	MI	09-2748
CAAN-09-12426	AN-607999	2.0–2.17	Soil	MI	09-3139
RE39-09-10272	AN-608000	0.0–0.17	Soil	MI	09-2748
CAAN-09-12427	AN-608000	2.0–2.17	Soil	MI	09-3139
RE39-09-10271	AN-608001	0.0–0.17	Soil	MI	09-2748
CAAN-09-12428	AN-608001	2.0–2.17	Soil	MI	09-3139
RE39-09-10270	AN-608002	0.0–0.17	Soil	MI	09-2748
CAAN-09-12429	AN-608002	2.0–2.17	Soil	MI	09-3139
RE39-09-10269	AN-608003	0.0–0.17	Soil	MI	09-2748
CAAN-09-12430	AN-608003	2.0–2.17	Soil	MI	09-3139
RE39-09-10268	AN-608004	0.0–0.17	Soil	MI	09-2748
CAAN-09-12431	AN-608004	2.0–2.17	Soil	MI	09-3139
CAAN-09-12432	AN-608005	2.0–2.17	Soil	Sidewall MI	09-3139
CAAN-09-12433	AN-608006	2.0–2.17	Soil	Sidewall MI	09-3139
CAAN-09-12434	AN-608007	2.0–2.17	Soil	Sidewall MI	09-3139

* Analytical request number.

Table 2.2-2
PCBs Detected in 2009/2010 at the Former Capacitor Staging Areas at SWMU 39-001(a)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1016	Aroclor-1242	Aroclor-1248	Aroclor-1260
Residential SSL[a]				**3.98**	**2.43**	**2.48**	**2.43**
Northern Capacitor Staging Area							
RE39-09-10266	AN-608008	0.0-0.17	Soil	0.15	—[b]	0.19	0.025 (J)
CAAN-09-12435	AN-608008	2.0-2.17	Soil	—	0.0069 (J)	—	—
CAAN-09-12436	AN-608009	2.0-2.17	Soil	—	3.6 (J)	—	0.12
RE39-09-10267	AN-608010	0.0-0.17	Soil	220	—	—	—
CAAN-09-12437	AN-608010	2.0-2.17	Soil	—	0.67 (J)	—	0.024 (J)
CAAN-09-12438	AN-608011	2.0-2.17	Soil	—	0.17 (J)	—	0.0066 (J)
CAAN-09-12439	AN-608012	2.0-2.17	Soil	—	0.57 (J)	—	0.028 (J)
RE39-09-10265	AN-608013	0.0-0.17	Soil	0.42	—	—	—
CAAN-09-12440	AN-608013	2.0-2.17	Soil	—	0.087 (J)	—	—
RE39-09-10264	AN-608014	0.0-0.17	Soil	0.075	—	—	—
CAAN-09-12441	AN-608014	2.0-2.17	Soil	—	0.021 (J)	—	—
CAAN-09-12442	AN-608015	2.0-2.17	Soil	—	0.0067 (J)	—	—
CAAN-09-12443	AN-608016	2.0-2.17	Soil	—	0.0057 (J)	—	—
Southern Capacitor Staging Area							
RE39-09-10276	AN-607996	0.0-0.17	Soil	65	—	—	—
CAAN-09-12423	AN-607996	2.0-2.17	Soil	—	7.9 (J)	—	0.35
RE39-10-3952	AN-607996	4.0-4.17	Soil	—	0.36 (J)	—	0.013 (J)
RE39-09-10275	AN-607997	0.0-0.17	Soil	0.59	—	—	—
CAAN-09-12424	AN-607997	2.0-2.17	Soil	—	3.1 (J)	—	0.096
RE39-10-3953	AN-607997	4.0-4.17	Soil	—	0.53 (J)	—	0.021 (J)
RE39-09-10274	AN-607998	0.0-0.17	Soil	0.46	—	—	—
CAAN-09-12425	AN-607998	2.0-2.17	Soil	—	0.23 (J)	—	0.011 (J)
RE39-09-10273	AN-607999	0.0-0.17	Soil	6.9	—	—	—
CAAN-09-12426	AN-607999	2.0-2.17	Soil	—	0.025 (J)	—	—
RE39-09-10272	AN-608000	0.0-0.17	Soil	110	—	—	—
CAAN-09-12427	AN-608000	2.0-2.17	Soil	—	0.69 (J)	—	0.05
RE39-09-10271	AN-608001	0.0-0.17	Soil	2.0	—	—	—
CAAN-09-12428	AN-608001	2.0-2.17	Soil	—	0.19 (J)	—	0.0069 (J)
RE39-09-10270	AN-608002	0.0-0.17	Soil	6.1		—	—

Table 2.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1016	Aroclor-1242	Aroclor-1248	Aroclor-1260
Residential SSL[a]				**3.98**	**2.43**	**2.48**	**2.43**
CAAN-09-12429	AN-608002	2.0-2.17	Soil	—	0.031 (J)	—	—
RE39-09-10269	AN-608003	0.0-0.17	Soil	160	—	—	—
CAAN-09-12430	AN-608003	2.0-2.17	Soil	—	0.42 (J)	—	0.019 (J)
RE39-09-10268	AN-608004	0.0-0.17	Soil	9.4	—	—	—
CAAN-09-12431	AN-608004	2.0-2.17	Soil	—	0.22 (J)	—	0.037
CAAN-09-12432	AN-608005	2.0-2.17	Soil	—	0.24 (J)	—	0.0093 (J)
CAAN-09-12433	AN-608006	2.0-2.17	Soil	—	0.0083 (J)	—	—
CAAN-09-12434	AN-608007	2.0-2.17	Soil	—	0.018 (J)	—	0.0078

Notes: Units are in mg/kg. Data qualifiers are defined in Appendix A. Shading denotes sample locations excavated during 2010 cleanup activities.

[a] SSLs from NMED (2017, 602273).

[b] — = Not detected.

Table 2.3-1
Samples Collected and PCB Analysis Requested in 2010 at Former Waste Stockpile Area at SWMU 39-001(b)

Sample ID	Location ID	Depth (ft)	Media	PCBs
RE39-10-16300	39-611970	0.0–0.17	Soil	10-3267*
RE39-10-16301	39-611971	0.0–0.17	Soil	10-3267
RE39-10-16302	39-611972	0.0–0.17	Soil	10-3267
RE39-10-16303	39-611973	0.0–0.17	Soil	10-3267
RE39-10-16304	39-611974	0.0–0.17	Soil	10-3267
RE39-10-16305	39-611975	0.0–0.17	Soil	10-3267
RE39-10-16306	39-611976	0.0–0.17	Soil	10-3267
RE39-10-16307	39-611977	0.0–0.17	Soil	10-3267
RE39-10-16308	39-611978	0.0–0.17	Soil	10-3267
RE39-10-16309	39-611979	0.0–0.17	Soil	10-3267
RE39-10-16310	39-611980	0.0–0.17	Soil	10-3267
RE39-10-16311	39-611981	0.0–0.17	Soil	10-3267
RE39-10-16312	39-611982	0.0–0.17	Soil	10-3267
RE39-10-16313	39-611983	0.0–0.17	Soil	10-3267
RE39-10-16314	39-611984	0.0–0.17	Soil	10-3267
RE39-10-16315	39-611985	0.0–0.17	Soil	10-3267

Table 2.3-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	PCBs
RE39-10-16316	39-611986	0.0–0.17	Soil	10-3277
RE39-10-16317	39-611987	0.0–0.17	Soil	10-3277
RE39-10-16318	39-611988	0.0–0.17	Soil	10-3277
RE39-10-16319	39-611989	0.0–0.17	Soil	10-3277
RE39-10-16320	39-611990	0.0–0.17	Soil	10-3277
RE39-10-16321	39-611991	0.0–0.17	Soil	10-3277
RE39-10-16322	39-611992	0.0–0.17	Soil	10-3277
RE39-10-16323	39-611993	0.0–0.17	Soil	10-3277
RE39-10-16324	39-611994	0.0–0.17	Soil	10-3277
RE39-10-16325	39-611995	0.0–0.17	Soil	10-3277
RE39-10-16326	39-611996	0.0–0.17	Soil	10-3294
RE39-10-16327	39-611997	0.0–0.17	Soil	10-3294
RE39-10-16328	39-611998	0.0–0.17	Soil	10-3294
RE39-10-16329	39-611999	0.0–0.17	Soil	10-3294
RE39-10-16330	39-612000	0.0–0.17	Soil	10-3294
RE39-10-16331	39-612001	0.0–0.17	Soil	10-3294
RE39-10-16332	39-612002	0.0–0.17	Soil	10-3294
RE39-10-16333	39-612003	0.0–0.17	Soil	10-3294
RE39-10-16334	39-612004	0.0–0.17	Soil	10-3294
RE39-10-16335	39-612005	0.0–0.17	Soil	10-3294
RE39-10-16336	39-612006	0.0–0.17	Soil	10-3294
RE39-10-16337	39-612007	0.0–0.17	Soil	10-3294
RE39-10-16338	39-612008	0.0–0.17	Soil	10-3294
RE39-10-16339	39-612009	0.0–0.17	Soil	10-3294
RE39-10-16340	39-612010	0.0–0.17	Soil	10-3294
RE39-10-16341	39-612011	0.0–0.17	Soil	10-3294
RE39-10-16342	39-612012	0.0–0.17	Soil	10-3298
RE39-10-16343	39-612013	0.0–0.17	Soil	10-3298
RE39-10-16344	39-612014	0.0–0.17	Soil	10-3298
RE39-10-16345	39-612015	0.0–0.17	Soil	10-3298
RE39-10-16346	39-612016	0.0–0.17	Soil	10-3298
RE39-10-16347	39-612017	0.0–0.17	Soil	10-3298
RE39-10-16348	39-612018	0.0–0.17	Soil	10-3298
RE39-10-16349	39-612019	0.0–0.17	Soil	10-3298
RE39-10-16350	39-612020	0.0–0.17	Soil	10-3298
RE39-10-16351	39-612021	0.0–0.17	Soil	10-3298
RE39-10-16352	39-612022	0.0–0.17	Soil	10-3298
RE39-10-16353	39-612023	0.0–0.17	Soil	10-3298
RE39-10-16354	39-612024	0.0–0.17	Soil	10-3298
RE39-10-16355	39-612025	0.0–0.17	Soil	10-3298

Table 2.3-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	PCBs
RE39-10-16356	39-612026	0.0–0.17	Soil	10-3298
RE39-10-16357	39-612027	0.0–0.17	Soil	10-3298
RE39-10-16358	39-612028	0–0.17	Soil	10-3298
RE39-10-16359	39-612029	0.0–0.17	Soil	10-3298
RE39-10-16360	39-612030	0.0–0.17	Soil	10-3298
RE39-10-16361	39-612031	0.0–0.17	Soil	10-3298
RE39-10-16362	39-612032	0.0–0.17	Soil	10-3313
RE39-10-16363	39-612033	0.0–0.17	Soil	10-3313
RE39-10-16364	39-612034	0.0–0.17	Soil	10-3313
RE39-10-16365	39-612035	0.0–0.17	Soil	10-3313
RE39-10-16366	39-612036	0.0–0.17	Soil	10-3313
RE39-10-16367	39-612037	0.0–0.17	Soil	10-3313
RE39-10-16368	39-612038	0.0–0.17	Soil	10-3313
RE39-10-16369	39-612039	0.0–0.17	Soil	10-3313
RE39-10-16370	39-612040	0.0–0.17	Soil	10-3313
RE39-10-16371	39-612041	0.0–0.17	Soil	10-3313
RE39-10-16372	39-612042	0.0–0.17	Soil	10-3313
RE39-10-16373	39-612043	0.0–0.17	Soil	10-3313
RE39-10-16374	39-612044	0.0–0.17	Soil	10-3313
RE39-10-16375	39-612045	0–0.17	Soil	10-3313
RE39-10-16376	39-612046	0–0.17	Soil	10-3313
RE39-10-16377	39-612047	0–0.17	Soil	10-3313
RE39-10-16378	39-612048	0–0.17	Soil	10-3313
RE39-10-16379	39-612049	0–0.17	Soil	10-3313

* Analytical request number.

Table 2.3-2
PCBs Detected in 2010 at the
Former Waste Stockpile Area at SWMU 39-001(b)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1254
Residential SSL[a]				**1.14**[b]
RE39-10-16302	39-611972	0.0–0.17	Soil	0.0064 (J)
RE39-10-16303	39-611973	0.0–0.17	Soil	0.011 (J)
RE39-10-16307	39-611977	0.0–0.17	Soil	0.018 (J)
RE39-10-16308	39-611978	0.0–0.17	Soil	0.017 (J)
RE39-10-16309	39-611979	0.0–0.17	Soil	0.011 (J)
RE39-10-16311	39-611981	0.0–0.17	Soil	0.012 (J)
RE39-10-16313	39-611983	0.0–0.17	Soil	0.011 (J)

Table 2.3-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1254
Residential SSL[a]				**1.14**[b]
RE39-10-16314	39-611984	0.0–0.17	Soil	0.0081 (J)
RE39-10-16315	39-611985	0.0–0.17	Soil	0.012 (J)
RE39-10-16316	39-611986	0.0–0.17	Soil	0.017 (J)
RE39-10-16317	39-611987	0.0–0.17	Soil	0.015 (J)
RE39-10-16318	39-611988	0.0–0.17	Soil	0.0082 (J)
RE39-10-16319	39-611989	0.0–0.17	Soil	0.14 (J)
RE39-10-16320	39-611990	0.0–0.17	Soil	0.03 (J)
RE39-10-16321	39-611991	0.0–0.17	Soil	0.0096 (J)
RE39-10-16322	39-611992	0.0–0.17	Soil	0.025 (J)
RE39-10-16323	39-611993	0.0–0.17	Soil	0.019 (J)
RE39-10-16324	39-611994	0.0–0.17	Soil	0.027 (J)
RE39-10-16325	39-611995	0.0–0.17	Soil	0.019 (J)
RE39-10-16326	39-611996	0.0–0.17	Soil	0.021 (J)
RE39-10-16327	39-611997	0.0–0.17	Soil	0.07
RE39-10-16328	39-611998	0.0–0.17	Soil	0.02 (J)
RE39-10-16330	39-612000	0.0–0.17	Soil	0.011 (J)
RE39-10-16331	39-612001	0.0–0.17	Soil	0.022 (J)
RE39-10-16332	39-612002	0.0–0.17	Soil	0.013 (J)
RE39-10-16333	39-612003	0.0–0.17	Soil	0.065
RE39-10-16334	39-612004	0.0–0.17	Soil	0.097
RE39-10-16335	39-612005	0.0–0.17	Soil	0.11
RE39-10-16336	39-612006	0.0–0.17	Soil	0.079
RE39-10-16337	39-612007	0.0–0.17	Soil	0.0086 (J)
RE39-10-16338	39-612008	0.0–0.17	Soil	0.038
RE39-10-16339	39-612009	0.0–0.17	Soil	0.05
RE39-10-16340	39-612010	0.0–0.17	Soil	0.033
RE39-10-16342	39-612012	0.0–0.17	Soil	0.082
RE39-10-16343	39-612013	0.0–0.17	Soil	0.15 (J)
RE39-10-16344	39-612014	0.0–0.17	Soil	0.17 (J)
RE39-10-16345	39-612015	0.0–0.17	Soil	0.24 (J)
RE39-10-16346	39-612016	0.0–0.17	Soil	0.051
RE39-10-16347	39-612017	0.0–0.17	Soil	0.051 (J)
RE39-10-16348	39-612018	0.0–0.17	Soil	0.025 (J)
RE39-10-16349	39-612019	0.0–0.17	Soil	0.02 (J)
RE39-10-16350	39-612020	0.0–0.17	Soil	0.24 (J)
RE39-10-16351	39-612021	0.0–0.17	Soil	0.25 (J)
RE39-10-16352	39-612022	0.0–0.17	Soil	0.36
RE39-10-16353	39-612023	0.0–0.17	Soil	0.81 (J)
RE39-10-16354	39-612024	0.0–0.17	Soil	0.18 (J)

Table 2.3-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1254
Residential SSL[a]				**1.14**[b]
RE39-10-16355	39-612025	0.0–0.17	Soil	0.077 (J)
RE39-10-16356	39-612026	0.0–0.17	Soil	0.024 (J)
RE39-10-16357	39-612027	0.0–0.17	Soil	0.052 (J)
RE39-10-16358	39-612028	0.0–0.17	Soil	0.12
RE39-10-16359	39-612029	0.0–0.17	Soil	0.21 (J)
RE39-10-16360	39-612030	0.0–0.17	Soil	0.31 (J)
RE39-10-16361	39-612031	0.0–0.17	Soil	0.2 (J)
RE39-10-16362	39-612032	0.0–0.17	Soil	**4.7**
RE39-10-16363	39-612033	0.0–0.17	Soil	0.92
RE39-10-16364	39-612034	0.0–0.17	Soil	0.18
RE39-10-16365	39-612035	0.0–0.17	Soil	0.18
RE39-10-16366	39-612036	0.0–0.17	Soil	0.14
RE39-10-16367	39-612037	0.0–0.17	Soil	0.16
RE39-10-16368	39-612038	0.0–0.17	Soil	0.39
RE39-10-16369	39-612039	0.0–0.17	Soil	**1.6**
RE39-10-16370	39-612040	0.0–0.17	Soil	**1.3**
RE39-10-16371	39-612041	0.0–0.17	Soil	0.66
RE39-10-16372	39-612042	0.0–0.17	Soil	0.47
RE39-10-16373	39-612043	0.0–0.17	Soil	0.11
RE39-10-16374	39-612044	0.0–0.17	Soil	0.22
RE39-10-16375	39-612045	0.0–0.17	Soil	0.26
RE39-10-16376	39-612046	0.0–0.17	Soil	0.35
RE39-10-16377	39-612047	0.0–0.17	Soil	**1.6**
RE39-10-16378	39-612048	0.0–0.17	Soil	0.086
RE39-10-16379	39-612049	0.0–0.17	Soil	0.19

Notes: Units are in mg/kg. Data qualifiers are defined in Appendix A. Shading denotes sample locations excavated during 2017 cleanup activities.

[a] SSLs from NMED (2017, 602273).

[b] SSL is lower of carcinogenic and noncarcinogenic SSLs.

Table 2.4-1
Samples Collected and
PCB Analysis Requested in 2009 at SWMU 39-007(a)

Sample ID	Location ID	Depth (ft)	Media	PCBs
RC39-01-0001	39-10018	0.0–0.5	Fill	9477R*
RC39-01-0002	39-10019	0.0–0.5	Fill	9477R
RC39-01-0003	39-10020	0.0–0.5	Fill	9477R
RC39-01-0004	39-10021	0.0-0.5	Fill	9477R
RC39-01-0005	39-10022	0.0–0.5	Fill	9477R
RE39-09-5326	39-604852	0.0–1.0	Soil	09-1437
RE39-09-5327	39-604852	1.0–2.0	Soil	09-1437
RE39-09-5328	39-604852	2.0–3.0	Soil	09-1437
RE39-09-5329	39-604853	0.0–1.0	Soil	09-1437
RE39-09-5330	39-604853	1.0–2.0	Soil	09-1437
RE39-09-5331	39-604853	2.0–3.0	Soil	09-1437
RE39-09-5332	39-604854	0.0–1.0	Soil	09-1437
RE39-09-5333	39-604854	1.0–2.0	Soil	09-1437
RE39-09-5334	39-604854	2.0–3.0	Soil	09-1437
RE39-09-5335	39-604855	0.0–1.0	Soil	09-1437
RE39-09-5336	39-604855	1.0–2.0	Soil	09-1437
RE39-09-5337	39-604855	2.0–3.0	Soil	09-1437
RE39-09-5338	39-604856	0.0–1.0	Soil	09-1437
RE39-09-5339	39-604856	1.0–2.0	Soil	09-1437
RE39-09-5340	39-604856	2.0–3.0	Soil	09-1437
RE39-09-5341	39-604857	0.0–1.0	Soil	09-1677
RE39-09-5342	39-604857	1.0–2.0	Soil	09-1677
RE39-09-5343	39-604857	2.0–3.0	Soil	09-1677
RE39-09-5344	39-604858	0.0–1.0	Soil	09-1677
RE39-09-5345	39-604858	1.0–2.0	Soil	09-1677
RE39-09-5346	39-604858	2.0–3.0	Soil	09-1677
RE39-09-5347	39-604859	0.0–1.0	Soil	09-1725
RE39-09-5350	39-604860	1.0–2.0	Soil	09-1725
RE39-09-5353	39-604861	0.0–1.0	Soil	09-1725

* Analytical request number.

Table 2.4-2
PCBs Detected in 2009 Investigation Samples from SWMU 39-007(a)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
Residential SSL[a]				**2.43**	**2.43**	**1.14**[b]	**2.43**
RC39-01-0001	39-10018	0.0–0.5	Fill	—[c]	—	—	0.032 (J)
RC39-01-0002	39-10019	0.0–0.5	Fill	—	—	**3.0**	—
RC39-01-0003	39-10020	0.0–0.5	Fill	—	—	—	0.086
RC39-01-0005	39-10022	0.0–0.5	Fill	—	—	—	0.036
RE39-09-5326	39-604852	0.0–1.0	Soil	—	—	0.0438	0.0228
RE39-09-5327	39-604852	1.0–2.0	Soil	—	—	0.0094	0.0094
RE39-09-5329	39-604853	0.0–1.0	Soil	—	—	0.0039 (J)	0.0033 (J)
RE39-09-5330	39-604853	1.0–2.0	Soil	—	0.202	—	0.0269 (J)
RE39-09-5331	39-604853	2.0–3.0	Soil	—	0.00806	0.00605	0.00308 (J)
RE39-09-5332	39-604854	0.0–1.0	Soil	—	—	**24.6**	**7.82**
RE39-09-5333	39-604854	1.0–2.0	Soil	—	—	**1.26**	0.404
RE39-09-5334	39-604854	2.0–3.0	Soil	—	—	0.268	0.089
RE39-09-5335	39-604855	0.0–1.0	Soil	—	—	0.0404	0.0361
RE39-09-5336	39-604855	1.0–2.0	Soil	—	—	—	0.0022 (J)
RE39-09-5338	39-604856	0.0–1.0	Soil	—	—	0.0341	0.0212
RE39-09-5339	39-604856	1.0–2.0	Soil	—	—	0.0024 (J)	0.0016 (J)
RE39-09-5340	39-604856	2.0–3.0	Soil	—	—	0.0026 (J)	0.0015 (J)
RE39-09-5347	39-604859	0.0–1.0	Soil	—	—	0.4 (J)	—
RE39-09-5350	39-604860	1.0–2.0	Soil	0.24 (J)	—	—	—
RE39-09-5353	39-604861	0.0–1.0	Soil	—	0.35 (J)	0.26 (J)	—

Notes: Units are in mg/kg. Data qualifiers are defined in Appendix A. Shading denotes sample locations excavated during 2017 cleanup activities.

[a] SSLs from NMED (2017, 602273).

[b] SSL is lower of carcinogenic and noncarcinogenic SSLs.

[c] — = Not detected.

Table 3.2-1
Residential Screening Levels

Chemical	Residential Soil SSL or SAL (mg/kg or pCi/g)[a]
Acenaphthene	3.48E+03
Acenaphthylene	1.74E+03[b]
Anthracene	1.74E+04
Benzo(a)anthracene	1.53E+00
Benzo(a)pyrene	1.12E+00
Benzo(b)fluoranthene	1.53E+00
Benzo(g,h,i)perylene	1.74E+03[b]
Benzo(k)fluoranthene	1.53E+01
Benzoic Acid	2.50E+05[c]
Bis(2-ethylhexyl)phthalate	3.80E+02
Chrysene	1.53E+02
Dibenz(a,h)anthracene	1.53E-01
Dibenzofuran	7.30E+01[c]
Diethylphthalate	4.93E+04
Di-n-octylphthalate	6.30E+02[c]
Fluoranthene	2.32E+03
Fluorene	2.32E+03
Indeno(1,2,3-cd)pyrene	1.53E+00
Lead	4.00E+02
Methylnaphthalene[1-]	1.72E+02
Methylnaphthalene[2-][c]	2.32E+02
Naphthalene	1.16E+03
Pentachlorophenol	9.85E+00
Phenanthrene	1.74E+03
Pyrene	1.74E+03
Uranium-238	8.8E+01

[a] Residential SSLs are from NMED (2017, 602273) unless otherwise noted. If chemical has both carcinogenic and noncarcinogenic SSLs, the lower of the two is presented. SALs from LANL (2015, 600929).

[b] Pyrene was used as surrogate based on structural similarity.

[c] EPA regional screening level (https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-june-2017).

Table 4.2-1
Surveyed Coordinates for Locations Sampled
during the North Ancho Canyon Aggregate Area ACA

Site	Work Plan ID	Location ID	Easting (ft)	Northing (ft)
Former Waste Stockpile Area at SWMU 39-001(a)	1a-1	39-61429	1639602.5	1743987.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-2	39-61430	1639627.5	1743987.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-3	39-61431	1639582.5	1743967.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-4	39-61454	1639597.5	1743957.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-5	39-61455	1639607.5	1743967.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-6	39-61456	1639622.5	1743957.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-7	39-61457	1639632.5	1743967.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-8	39-61432	1639652.5	1743962.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-9	39-61433	1639607.6	1744046.9
Former Waste Stockpile Area at SWMU 39-001(a)	1a-10	39-61434	1639792.9	1743892.6
Former Waste Stockpile Area at SWMU 39-001(a)	1a-11	39-61458	1639613.227	1743933.75
Former Waste Stockpile Area at SWMU 39-001(a)	1a-12	39-61459	1639607.5	1743942.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-13	39-61460	1639622.5	1743932.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-14	39-61461	1639632.5	1743942.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-15	39-61462	1639647.5	1743932.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-16	39-61463	1639657.5	1743942.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-17	39-61464	1639672.5	1743932.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-18	39-61465	1639684.659	1743934.535
Former Waste Stockpile Area at SWMU 39-001(a)	1a-19	39-61466	1639697.5	1743932.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-20	39-61467	1639694.82	1743938.709
Former Waste Stockpile Area at SWMU 39-001(a)	1a-21	39-61435	1639921.65	1743698.63
Former Waste Stockpile Area at SWMU 39-001(a)	1a-22	39-61468	1639627.5	1743907.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-23	39-61469	1639632.5	1743917.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-24	39-61470	1639647.5	1743907.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-25	39-61471	1639657.5	1743917.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-26	39-61472	1639672.5	1743907.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-27	39-61473	1639682.5	1743917.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-28	39-61474	1639697.5	1743907.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-29	39-61475	1639707.5	1743917.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-30	39-61476	1639722.5	1743907.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-31	39-61477	1639732.5	1743917.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-32	39-61436	1639752.5	1743912.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-33	39-61478	1639638.450	1743890.589
Former Waste Stockpile Area at SWMU 39-001(a)	1a-34	39-61479	1639635.01	1743896.463
Former Waste Stockpile Area at SWMU 39-001(a)	1a-35	39-61480	1639647.5	1743882.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-36	39-61481	1639657.5	1743892.5

Table 4.2-1 (continued)

Site	Work Plan ID	Location ID	Easting (ft)	Northing (ft)
Former Waste Stockpile Area at SWMU 39-001(a)	1a-37	39-61482	1639672.5	1743882.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-38	39-61483	1639682.5	1743892.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-39	39-61484	1639697.5	1743882.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-40	39-61485	1639707.5	1743892.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-41	39-61486	1639722.5	1743882.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-42	39-61487	1639732.5	1743892.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-43	39-61488	1639747.5	1743882.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-44	39-61489	1639757.5	1743892.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-45	39-61437	1639777.5	1743887.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-46	39-61438	1639657.5	1743867.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-47	39-61490	1639672.5	1743857.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-48	39-61491	1639682.5	1743867.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-49	39-61492	1639697.5	1743857.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-50	39-61493	1639707.5	1743867.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-51	39-61494	1639722.5	1743857.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-52	39-61495	1639732.5	1743867.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-53	39-61496	1639747.5	1743857.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-54	39-61497	1639757.5	1743867.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-55	39-61498	1639772.5	1743857.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-56	39-61499	1639782.5	1743867.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-57	39-61439	1639802.5	1743862.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-58	39-61440	1639677.5	1743837.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-59	39-61500	1639697.5	1743832.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-60	39-61501	1639707.5	1743842.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-61	39-61502	1639722.5	1743832.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-62	39-61503	1639732.5	1743842.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-63	39-61504	1639747.5	1743832.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-64	39-61505	1639757.5	1743842.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-65	39-61506	1639772.5	1743832.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-66	39-61507	1639782.5	1743842.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-67	39-61508	1639797.5	1743832.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-68	39-61509	1639807.5	1743842.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-69	39-61441	1639827.5	1743837.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-70	39-61442	1639682.5	1743817.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-71	39-61510	1639697.5	1743807.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-72	39-61511	1639707.5	1743817.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-73	39-61512	1639722.5	1743807.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-74	39-61513	1639732.5	1743817.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-75	39-61514	1639747.5	1743807.5

Table 4.2-1 (continued)

Site	Work Plan ID	Location ID	Easting (ft)	Northing (ft)
Former Waste Stockpile Area at SWMU 39-001(a)	1a-76	39-61515	1639757.5	1743817.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-77	39-61516	1639772.5	1743807.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-78	39-61517	1639782.5	1743817.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-79	39-61518	1639797.5	1743807.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-80	39-61519	1639807.5	1743817.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-81	39-61443	1639827.5	1743812.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-82	39-61444	1639702.5	1743787.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-83	39-61520	1639722.5	1743782.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-84	39-61521	1639732.5	1743792.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-85	39-61522	1639747.5	1743782.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-86	39-61523	1639757.5	1743792.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-87	39-61445	1639777.5	1743787.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-88	39-61446	1639802.5	1743787.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-89	39-61447	1639707.5	1743767.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-90	39-61524	1639722.5	1743757.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-91	39-61525	1639732.5	1743767.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-92	39-61526	1639747.5	1743757.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-93	39-61527	1639757.5	1743767.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-94	39-61451	1639777.5	1743762.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-95	39-61448	1639727.5	1743737.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-96	39-61644	1639747.5	1743732.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-97	39-61645	1639757.5	1743742.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-98	39-61449	1639777.5	1743737.5
Former Waste Stockpile Area at SWMU 39-001(a)	1a-99	39-61450	1639752.5	1743712.5
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-100	39-61528	1639781.735	1743766.601
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-101	39-61529	1639785.293	1743770.485
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-102	39-61542	1639785.527	1743763.458
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-103	39-61530	1639788.727	1743767.497
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-104	39-61531	1639791.963	1743771.329
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-105	39-61532	1639789.243	1743760.478
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-106	39-61533	1639792.587	1743764.303
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-107	39-61534	1639796.026	1743767.855
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-108	39-61543	1639801.304	1743726.442
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-109	39-61544	1639805.942	1743728.676
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-110	39-61535	1639810.956	1743730.977
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-111	39-61536	1639803.476	1743722.14
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-112	39-61537	1639808.01	1743724.135
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-113	39-61538	1639812.681	1743726.359
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-114	39-61539	1639805.434	1743718.087

Table 4.2-1 (continued)

Site	Work Plan ID	Location ID	Easting (ft)	Northing (ft)
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-115	39-61541	1639809.879	1743720.071
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-116	39-61540	1639814.307	1743721.912
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-117	39-61545	1639781.372	1743773.426
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-118	39-61546	1639795.111	1743775.148
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-119	39-61547	1639796.424	1743761.18
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-120	39-61548	1639803.823	1743733.234
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-121	39-61549	1639817.45	1743728.538
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-122	39-61550	1639811.854	1743715.822
Former Capacitor Staging Areas at SWMU 39-001(a)	1a-123	39-61652	1639788.216	1743774.204
Former Waste Stockpile Area at SWMU 39-001(b)	1b-1	39-61551	1637007.5	1747817.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-2	39-61552	1637032.5	1747817.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-3	39-61553	1636957.5	1747792.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-4	39-61554	1636982.5	1747792.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-5	39-61555	1637007.5	1747792.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-6	39-61557	1637032.5	1747792.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-7	39-61558	1637057.5	1747792.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-8	39-61559	1636957.5	1747767.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-9	39-61560	1636982.5	1747767.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-10	39-61561	1637007.5	1747767.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-11	39-61562	1637032.5	1747767.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-12	39-61563	1637057.5	1747767.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-13	39-61564	1637082.5	1747767.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-14	39-61565	1636957.5	1747742.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-15	39-61566	1636982.5	1747742.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-16	39-61567	1637007.5	1747742.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-17	39-61568	1637032.5	1747742.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-18	39-61569	1637057.5	1747742.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-19	39-61570	1637082.5	1747742.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-20	39-61572	1636957.5	1747717.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-20a	39-61651	1636961.606	1747719.169
Former Waste Stockpile Area at SWMU 39-001(b)	1b-21	39-61573	1636982.5	1747717.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-22	39-61574	1637007.5	1747717.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-23	39-61575	1637032.5	1747717.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-24	39-61576	1637057.5	1747717.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-25	39-61577	1637082.5	1747717.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-26	39-61579	1637107.5	1747717.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-27	39-61631	1636932.5	1747692.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-28	39-61580	1636957.5	1747692.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-29	39-61581	1636982.5	1747692.5

Table 4.2-1 (continued)

Site	Work Plan ID	Location ID	Easting (ft)	Northing (ft)
Former Waste Stockpile Area at SWMU 39-001(b)	1b-30	39-61582	1637007.5	1747692.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-31	39-61583	1637032.5	1747692.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-32	39-61584	1637057.5	1747692.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-33	39-61585	1637082.5	1747692.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-34	39-61586	1637107.5	1747692.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-35	39-61587	1636957.5	1747667.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-36	39-61588	1636982.5	1747667.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-37	39-61589	1637007.5	1747667.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-38	39-61590	1637032.5	1747667.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-39	39-61591	1637057.5	1747667.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-40	39-61592	1637082.5	1747667.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-41	39-61593	1637107.5	1747667.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-42	39-61594	1637132.5	1747667.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-43	39-61595	1636957.5	1747642.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-44	39-61596	1636982.5	1747642.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-45	39-61597	1637007.5	1747642.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-46	39-61598	1637032.5	1747642.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-47	39-61599	1637057.5	1747642.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-48	39-61600	1637082.5	1747642.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-49	39-61601	1637107.5	1747642.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-50	39-61602	1637132.5	1747642.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-51	39-61603	1636957.5	1747617.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-52	39-61604	1636982.5	1747617.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-53	39-61605	1637007.5	1747617.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-54	39-61606	1637032.5	1747617.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-55	39-61607	1637057.5	1747617.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-56	39-61608	1637082.5	1747617.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-57	39-61609	1637107.5	1747617.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-58	39-61610	1636957.5	1747592.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-59	39-61611	1636982.5	1747592.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-60	39-61612	1637007.5	1747592.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-61	39-61613	1637032.5	1747592.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-62	39-61614	1637057.5	1747592.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-63	39-61633	1637077.5	1747587.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-64	39-61632	1637087.5	1747597.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-65	39-61615	1637107.5	1747592.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-66	39-61616	1636957.5	1747567.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-67	39-61617	1636982.5	1747567.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-68	39-61618	1637007.5	1747567.5

Table 4.2-1 (continued)

Site	Work Plan ID	Location ID	Easting (ft)	Northing (ft)
Former Waste Stockpile Area at SWMU 39-001(b)	1b-69	39-61619	1637032.5	1747567.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-70	39-61620	1637057.5	1747567.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-71	39-61635	1637077.5	1747562.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-72	39-61634	1637087.5	1747572.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-73	39-61636	1637102.5	1747562.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-74	39-61637	1637112.5	1747572.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-75	39-61621	1637132.5	1747567.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-76	39-61622	1636957.5	1747542.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-77	39-61623	1636982.5	1747542.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-78	39-61624	1637007.5	1747542.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-79	39-61625	1637032.5	1747542.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-80	39-61626	1637057.5	1747542.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-81	39-61627	1637082.5	1747542.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-82	39-61628	1637107.5	1747542.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-83	39-61650	1636962.5	1747522.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-84	39-61649	1636968.503	1747509.058
Former Waste Stockpile Area at SWMU 39-001(b)	1b-85	39-61629	1636982.5	1747517.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-86	39-61630	1637007.5	1747517.5
Former Waste Stockpile Area at SWMU 39-001(b)	1b-87	39-61578	1636962.5	1747497.5
SWMU 39-007(a)	7a-1	39-61638	1636682.313	1746266.201
SWMU 39-007(a)	7a-2	39-61639	1636687.355	1746261.805
SWMU 39-007(a)	7a-3	39-61640	1636692.209	1746256.139
SWMU 39-007(a)	7a-4	39-61641	1636688.896	1746251.451
SWMU 39-007(a)	7a-5	39-61642	1636682.313	1746255.118
SWMU 39-007(a)	7a-6	39-61643	1636677.209	1746261.18

Table 4.3-1
Field-Screening Results for Samples Collected during the North Ancho Canyon Aggregate Area ACA

Site	Location ID	Depth (ft)	Sample ID	Alpha (dpm)*	Beta/Gamma (dpm)*
Former Waste Stockpile Area at SWMU 39-001(a)	39-61429	0.0–1.0	RE39-17-139635	34	635
Former Waste Stockpile Area at SWMU 39-001(a)	39-61430	0.0–1.0	RE39-17-139636	27	649
Former Waste Stockpile Area at SWMU 39-001(a)	39-61431	0.0–1.0	RE39-17-139637	20	706
Former Waste Stockpile Area at SWMU 39-001(a)	39-61432	0.0–1.0	RE39-17-139638	13	635
Former Waste Stockpile Area at SWMU 39-001(a)	39-61433	0.0–1.0	RE39-17-139639	27	576
Former Waste Stockpile Area at SWMU 39-001(a)	39-61434	0.0–1.0	RE39-17-139640	20	681
Former Waste Stockpile Area at SWMU 39-001(a)	39-61435	0.0–1.0	RE39-17-139641	10	505
Former Waste Stockpile Area at SWMU 39-001(a)	39-61436	0.0–1.0	RE39-17-139642	20	642
Former Waste Stockpile Area at SWMU 39-001(a)	39-61437	0.0–1.0	RE39-17-139643	27	527
Former Waste Stockpile Area at SWMU 39-001(a)	39-61438	0.0–1.0	RE39-17-139644	20	734
Former Waste Stockpile Area at SWMU 39-001(a)	39-61439	0.0–1.0	RE39-17-139645	54	586
Former Waste Stockpile Area at SWMU 39-001(a)	39-61440	0.0–1.0	RE39-17-139646	6	2200
Former Waste Stockpile Area at SWMU 39-001(a)	39-61441	0.0–1.0	RE39-17-139647	12	2310
Former Waste Stockpile Area at SWMU 39-001(a)	39-61442	0.0–1.0	RE39-17-139648	12	2210
Former Waste Stockpile Area at SWMU 39-001(a)	39-61443	0.0–1.0	RE39-17-139649	18	2160
Former Waste Stockpile Area at SWMU 39-001(a)	39-61444	0.0–1.0	RE39-17-139650	0	2270
Former Waste Stockpile Area at SWMU 39-001(a)	39-61445	0.0–1.0	RE39-17-139651	12	2151
Former Waste Stockpile Area at SWMU 39-001(a)	39-61446	0.0–1.0	RE39-17-139652	6	2060
Former Waste Stockpile Area at SWMU 39-001(a)	39-61447	0.0–1.0	RE39-17-139653	31	2240
Former Waste Stockpile Area at SWMU 39-001(a)	39-61448	0.0–1.0	RE39-17-139654	10	757
Former Waste Stockpile Area at SWMU 39-001(a)	39-61449	0.0–1.0	RE39-17-139655	30	416
Former Waste Stockpile Area at SWMU 39-001(a)	39-61450	0.0–1.0	RE39-17-139656	65	444
Former Waste Stockpile Area at SWMU 39-001(a)	39-61451	0.0–1.0	RE39-17-139657	37	972
Former Waste Stockpile Area at SWMU 39-001(a)	39-61454	1.0–2.0	RE39-17-139660	42	2270
Former Waste Stockpile Area at SWMU 39-001(a)	39-61455	1.0–2.0	RE39-17-139661	48	2300
Former Waste Stockpile Area at SWMU 39-001(a)	39-61456	1.0–2.0	RE39-17-139662	42	2250
Former Waste Stockpile Area at SWMU 39-001(a)	39-61457	1.0–2.0	RE39-17-139663	12	2390
Former Waste Stockpile Area at SWMU 39-001(a)	39-61458	1.0–2.0	RE39-17-139664	60	2590
Former Waste Stockpile Area at SWMU 39-001(a)	39-61459	1.0–2.0	RE39-17-139665	24	2140
Former Waste Stockpile Area at SWMU 39-001(a)	39-61460	1.0–2.0	RE39-17-139666	72	2280
Former Waste Stockpile Area at SWMU 39-001(a)	39-61461	1.0–2.0	RE39-17-139667	12	2280
Former Waste Stockpile Area at SWMU 39-001(a)	39-61462	1.0–2.0	RE39-17-139668	97	2130
Former Waste Stockpile Area at SWMU 39-001(a)	39-61463	1.0–2.0	RE39-17-139669	54	2250
Former Waste Stockpile Area at SWMU 39-001(a)	39-61464	1.0–2.0	RE39-17-139670	48	2350
Former Waste Stockpile Area at SWMU 39-001(a)	39-61465	1.0–2.0	RE39-17-139671	26	2450
Former Waste Stockpile Area at SWMU 39-001(a)	39-61466	1.0–2.0	RE39-17-139672	60	2050

Table 4.3-1 (continued)

Site	Location ID	Depth (ft)	Sample ID	Alpha (dpm)*	Beta/Gamma (dpm)*
Former Waste Stockpile Area at SWMU 39-001(a)	39-61467	1.0–2.0	RE39-17-139673	34	2490
Former Waste Stockpile Area at SWMU 39-001(a)	39-61468	1.0–2.0	RE39-17-139674	24	2180
Former Waste Stockpile Area at SWMU 39-001(a)	39-61469	1.0–2.0	RE39-17-139675	66	2060
Former Waste Stockpile Area at SWMU 39-001(a)	39-61470	2.0–3.0	RE39-17-147330	52	2370
Former Waste Stockpile Area at SWMU 39-001(a)	39-61471	1.0–2.0	RE39-17-139677	42	2090
Former Waste Stockpile Area at SWMU 39-001(a)	39-61472	2.0–3.0	RE39-17-147331	31	2390
Former Waste Stockpile Area at SWMU 39-001(a)	39-61473	1.0–2.0	RE39-17-139679	60	2190
Former Waste Stockpile Area at SWMU 39-001(a)	39-61474	2.0–3.0	RE39-17-147332	63	2360
Former Waste Stockpile Area at SWMU 39-001(a)	39-61475	1.0–2.0	RE39-17-139681	54	2130
Former Waste Stockpile Area at SWMU 39-001(a)	39-61476	1.0–2.0	RE39-17-139682	87	2280
Former Waste Stockpile Area at SWMU 39-001(a)	39-61477	1.0–2.0	RE39-17-139683	93	2720
Former Waste Stockpile Area at SWMU 39-001(a)	39-61478	1.0–2.0	RE39-17-139684	40	2670
Former Waste Stockpile Area at SWMU 39-001(a)	39-61479	1.0–2.0	RE39-17-139685	20	2560
Former Waste Stockpile Area at SWMU 39-001(a)	39-61480	1.0–2.0	RE39-17-139686	42	2190
Former Waste Stockpile Area at SWMU 39-001(a)	39-61481	3.0–4.0	RE39-17-143130	22	2020
Former Waste Stockpile Area at SWMU 39-001(a)	39-61482	1.0–2.0	RE39-17-139688	30	2400
Former Waste Stockpile Area at SWMU 39-001(a)	39-61483	1.0–2.0	RE39-17-139689	30	2200
Former Waste Stockpile Area at SWMU 39-001(a)	39-61484	2.0–3.0	RE39-17-139690	60	2150
Former Waste Stockpile Area at SWMU 39-001(a)	39-61485	2.0–3.0	RE39-17-139691	24	2250
Former Waste Stockpile Area at SWMU 39-001(a)	39-61486	2.0–3.0	RE39-17-139692	48	2080
Former Waste Stockpile Area at SWMU 39-001(a)	39-61487	2.0–3.0	RE39-17-139693	42	2110
Former Waste Stockpile Area at SWMU 39-001(a)	39-61488	2.0–3.0	RE39-17-147334	52	2390
Former Waste Stockpile Area at SWMU 39-001(a)	39-61489	1.0–2.0	RE39-17-139695	75	2390
Former Waste Stockpile Area at SWMU 39-001(a)	39-61490	1.0–2.0	RE39-17-139696	87	2390
Former Waste Stockpile Area at SWMU 39-001(a)	39-61491	1.0–2.0	RE39-17-139697	34	2270
Former Waste Stockpile Area at SWMU 39-001(a)	39-61492	1.0–2.0	RE39-17-139698	93	2480
Former Waste Stockpile Area at SWMU 39-001(a)	39-61493	1.0–2.0	RE39-17-139699	128	2590
Former Waste Stockpile Area at SWMU 39-001(a)	39-61494	1.0–2.0	RE39-17-139700	52	2320
Former Waste Stockpile Area at SWMU 39-001(a)	39-61495	1.0–2.0	RE39-17-139701	52	2270
Former Waste Stockpile Area at SWMU 39-001(a)	39-61496	2.0–3.0	RE39-17-147335	47	2650
Former Waste Stockpile Area at SWMU 39-001(a)	39-61497	2.0–3.0	RE39-17-147336	52	2580
Former Waste Stockpile Area at SWMU 39-001(a)	39-61498	2.0–3.0	RE39-17-147337	47	2390
Former Waste Stockpile Area at SWMU 39-001(a)	39-61499	1.0–2.0	RE39-17-139705	93	2470
Former Waste Stockpile Area at SWMU 39-001(a)	39-61500	1.0–2.0	RE39-17-139706	58	2360
Former Waste Stockpile Area at SWMU 39-001(a)	39-61501	1.0–2.0	RE39-17-139707	34	2520
Former Waste Stockpile Area at SWMU 39-001(a)	39-61502	1.0–2.0	RE39-17-139708	34	2280
Former Waste Stockpile Area at SWMU 39-001(a)	39-61503	1.0–2.0	RE39-17-139709	81	2440
Former Waste Stockpile Area at SWMU 39-001(a)	39-61504	1.0–2.0	RE39-17-139710	46	2360
Former Waste Stockpile Area at SWMU 39-001(a)	39-61505	1.0–2.0	RE39-17-139711	64	2450

Table 4.3-1 (continued)

Site	Location ID	Depth (ft)	Sample ID	Alpha (dpm)*	Beta/Gamma (dpm)*
Former Waste Stockpile Area at SWMU 39-001(a)	39-61506	1.0–2.0	RE39-17-139712	40	2290
Former Waste Stockpile Area at SWMU 39-001(a)	39-61507	1.0–2.0	RE39-17-139713	11	2400
Former Waste Stockpile Area at SWMU 39-001(a)	39-61508	1.0–2.0	RE39-17-139714	46	2420
Former Waste Stockpile Area at SWMU 39-001(a)	39-61509	1.0–2.0	RE39-17-139715	23	2410
Former Waste Stockpile Area at SWMU 39-001(a)	39-61510	1.0–2.0	RE39-17-139716	40	2490
Former Waste Stockpile Area at SWMU 39-001(a)	39-61511	1.0–2.0	RE39-17-139717	40	2370
Former Waste Stockpile Area at SWMU 39-001(a)	39-61512	2.0–3.0	RE39-17-147338	52	2290
Former Waste Stockpile Area at SWMU 39-001(a)	39-61513	1.0–2.0	RE39-17-139719	46	2340
Former Waste Stockpile Area at SWMU 39-001(a)	39-61514	1.0–2.0	RE39-17-139720	17	2340
Former Waste Stockpile Area at SWMU 39-001(a)	39-61515	1.0–2.0	RE39-17-139721	34	2330
Former Waste Stockpile Area at SWMU 39-001(a)	39-61516	1.0–2.0	RE39-17-139722	40	2340
Former Waste Stockpile Area at SWMU 39-001(a)	39-61517	1.0–2.0	RE39-17-139723	29	2290
Former Waste Stockpile Area at SWMU 39-001(a)	39-61518	1.0–2.0	RE39-17-139724	64	2460
Former Waste Stockpile Area at SWMU 39-001(a)	39-61519	1.0–2.0	RE39-17-139725	69	2330
Former Waste Stockpile Area at SWMU 39-001(a)	39-61520	1.0–2.0	RE39-17-139726	99	2320
Former Waste Stockpile Area at SWMU 39-001(a)	39-61521	1.0–2.0	RE39-17-139727	52	2320
Former Waste Stockpile Area at SWMU 39-001(a)	39-61522	1.0–2.0	RE39-17-139728	75	2340
Former Waste Stockpile Area at SWMU 39-001(a)	39-61523	1.0–2.0	RE39-17-139729	40	2490
Former Waste Stockpile Area at SWMU 39-001(a)	39-61524	1.0–2.0	RE39-17-139730	12	2240
Former Waste Stockpile Area at SWMU 39-001(a)	39-61525	1.0–2.0	RE39-17-139731	46	2360
Former Waste Stockpile Area at SWMU 39-001(a)	39-61526	1.0–2.0	RE39-17-139732	29	2770
Former Waste Stockpile Area at SWMU 39-001(a)	39-61527	1.0–2.0	RE39-17-139733	99	2860
Former Waste Stockpile Area at SWMU 39-001(a)	39-61644	1.0–2.0	RE39-17-143126	34	2510
Former Waste Stockpile Area at SWMU 39-001(a)	39-61645	1.0–2.0	RE39-17-143127	75	2820
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61528	2.0–3.0	RE39-17-139734	37	599
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61529	2.0–3.0	RE39-17-139735	24	613
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61530	2.0–3.0	RE39-17-139736	17	603
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61531	2.0–3.0	RE39-17-139737	37	564
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61532	2.0–3.0	RE39-17-139738	44	603
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61533	2.0–3.0	RE39-17-139739	24	690
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61534	2.0–3.0	RE39-17-139740	24	673
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61535	2.0–3.0	RE39-17-139741	51	696
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61536	2.0–3.0	RE39-17-139742	58	662
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61537	2.0–3.0	RE39-17-139743	37	451
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61538	2.0–3.0	RE39-17-139744	37	342
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61539	2.0–3.0	RE39-17-139745	58	441
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61540	2.0–3.0	RE39-17-139746	51	427
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61541	2.0–3.0	RE39-17-139747	24	560
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61542	4.0–5.0	RE39-17-139748	37	437

Table 4.3-1 (continued)

Site	Location ID	Depth (ft)	Sample ID	Alpha (dpm)*	Beta/Gamma (dpm)*
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61543	4.0–5.0	RE39-17-139749	17	465
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61544	4.0–5.0	RE39-17-139750	30	444
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61545	0.0–1.0	RE39-17-139751	51	423
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61545	2.0–3.0	RE39-17-139757	44	651
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61545	4.0–5.0	RE39-17-139763	10	818
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61546	0.0–1.0	RE39-17-139752	30	497
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61546	2.0–3.0	RE39-17-139758	44	493
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61546	4.0–5.0	RE39-17-139764	0	560
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61547	0.0–1.0	RE39-17-141556	28	1530
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61547	2.0–3.0	RE39-17-139759	24	458
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61547	4.0–5.0	RE39-17-139765	24	518
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61548	0.0–1.0	RE39-17-139754	37	737
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61548	2.0–3.0	RE39-17-139760	58	560
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61548	4.0–5.0	RE39-17-139766	17	493
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61549	0.0–1.0	RE39-17-141557	33	1784
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61549	2.0–3.0	RE39-17-139761	51	609
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61549	4.0–5.0	RE39-17-139767	37	525
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61550	0.0–1.0	RE39-17-139756	10	493
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61550	2.0–3.0	RE39-17-139762	10	367
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61550	4.0–5.0	RE39-17-139768	24	476
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61552	0.0–1.0	RE39-17-143185	36	2300
Former Capacitor Staging Areas at SWMU 39-001(a)	39-61552	1.0–1.5	RE39-17-143186	18	1938
Former Waste Stockpile Area at SWMU 39-001(b)	39-61551	0.0–1.0	RE39-17-139769	31	1612
Former Waste Stockpile Area at SWMU 39-001(b)	39-61552	0.0–1.0	RE39-17-139770	41	1606
Former Waste Stockpile Area at SWMU 39-001(b)	39-61553	0.0–1.0	RE39-17-139771	35	1578
Former Waste Stockpile Area at SWMU 39-001(b)	39-61554	0.0–1.0	RE39-17-139772	14	1605
Former Waste Stockpile Area at SWMU 39-001(b)	39-61555	0.0–1.0	RE39-17-139773	12	1563
Former Waste Stockpile Area at SWMU 39-001(b)	39-61557	0.0–1.0	RE39-17-139775	7	1630
Former Waste Stockpile Area at SWMU 39-001(b)	39-61558	0.0–1.0	RE39-17-139776	41	1773
Former Waste Stockpile Area at SWMU 39-001(b)	39-61559	0.0–1.0	RE39-17-139777	35	1709
Former Waste Stockpile Area at SWMU 39-001(b)	39-61560	0.0–1.0	RE39-17-139778	54	1630
Former Waste Stockpile Area at SWMU 39-001(b)	39-61561	0.0–1.0	RE39-17-139779	42	1534
Former Waste Stockpile Area at SWMU 39-001(b)	39-61562	0.0–1.0	RE39-17-139780	14	1551
Former Waste Stockpile Area at SWMU 39-001(b)	39-61563	0.0–1.0	RE39-17-139781	27	1563
Former Waste Stockpile Area at SWMU 39-001(b)	39-61564	0.0–1.0	RE39-17-139782	7	1595
Former Waste Stockpile Area at SWMU 39-001(b)	39-61565	0.0–1.0	RE39-17-139783	6	1517
Former Waste Stockpile Area at SWMU 39-001(b)	39-61566	0.0–1.0	RE39-17-139784	28	1606
Former Waste Stockpile Area at SWMU 39-001(b)	39-61567	0.0–1.0	RE39-17-139785	14	1688
Former Waste Stockpile Area at SWMU 39-001(b)	39-61568	0.0–1.0	RE39-17-139786	28	1654

Table 4.3-1 (continued)

Site	Location ID	Depth (ft)	Sample ID	Alpha (dpm)*	Beta/Gamma (dpm)*
Former Waste Stockpile Area at SWMU 39-001(b)	39-61569	0.0–1.0	RE39-17-139787	28	1492
Former Waste Stockpile Area at SWMU 39-001(b)	39-61570	0.0–1.0	RE39-17-139788	29	1672
Former Waste Stockpile Area at SWMU 39-001(b)	39-61572	0.0–1.0	RE39-17-139790	28	1667
Former Waste Stockpile Area at SWMU 39-001(b)	39-61573	0.0–1.0	RE39-17-139791	14	1540
Former Waste Stockpile Area at SWMU 39-001(b)	39-61574	0.0–1.0	RE39-17-139792	13	1696
Former Waste Stockpile Area at SWMU 39-001(b)	39-61575	0.0–1.0	RE39-17-139793	27	1633
Former Waste Stockpile Area at SWMU 39-001(b)	39-61576	0.0–1.0	RE39-17-139794	14	1400
Former Waste Stockpile Area at SWMU 39-001(b)	39-61577	0.0–1.0	RE39-17-139795	6	1524
Former Waste Stockpile Area at SWMU 39-001(b)	39-61578	0.0–1.0	RE39-17-139796	47	1759
Former Waste Stockpile Area at SWMU 39-001(b)	39-61579	0.0–1.0	RE39-17-139797	21	1551
Former Waste Stockpile Area at SWMU 39-001(b)	39-61580	0.0–1.0	RE39-17-139798	27	1610
Former Waste Stockpile Area at SWMU 39-001(b)	39-61581	0.0–1.0	RE39-17-139799	35	1420
Former Waste Stockpile Area at SWMU 39-001(b)	39-61582	0.0–1.0	RE39-17-139800	54	1612
Former Waste Stockpile Area at SWMU 39-001(b)	39-61583	0.0–1.0	RE39-17-139801	0	1664
Former Waste Stockpile Area at SWMU 39-001(b)	39-61584	0.0–1.0	RE39-17-139802	44	1976
Former Waste Stockpile Area at SWMU 39-001(b)	39-61585	0.0–1.0	RE39-17-139803	22	2030
Former Waste Stockpile Area at SWMU 39-001(b)	39-61586	0.0–1.0	RE39-17-139804	33	2030
Former Waste Stockpile Area at SWMU 39-001(b)	39-61587	0.0–1.0	RE39-17-139805	28	2170
Former Waste Stockpile Area at SWMU 39-001(b)	39-61588	0.0–1.0	RE39-17-139806	11	1796
Former Waste Stockpile Area at SWMU 39-001(b)	39-61589	0.0–1.0	RE39-17-139807	33	1979
Former Waste Stockpile Area at SWMU 39-001(b)	39-61590	0.0–1.0	RE39-17-139808	16	2150
Former Waste Stockpile Area at SWMU 39-001(b)	39-61591	0.0–1.0	RE39-17-139809	16	1976
Former Waste Stockpile Area at SWMU 39-001(b)	39-61592	0.0–1.0	RE39-17-139810	16	2110
Former Waste Stockpile Area at SWMU 39-001(b)	39-61593	0.0–1.0	RE39-17-139811	33	1934
Former Waste Stockpile Area at SWMU 39-001(b)	39-61594	0.0–1.0	RE39-17-139812	33	1986
Former Waste Stockpile Area at SWMU 39-001(b)	39-61595	0.0–1.0	RE39-17-139813	28	2570
Former Waste Stockpile Area at SWMU 39-001(b)	39-61596	0.0–1.0	RE39-17-139814	13	1882
Former Waste Stockpile Area at SWMU 39-001(b)	39-61597	0.0–1.0	RE39-17-139815	20	2110
Former Waste Stockpile Area at SWMU 39-001(b)	39-61598	0.0–1.0	RE39-17-139816	33	2260
Former Waste Stockpile Area at SWMU 39-001(b)	39-61599	0.0–1.0	RE39-17-139817	20	2070
Former Waste Stockpile Area at SWMU 39-001(b)	39-61600	0.0–1.0	RE39-17-139818	6	2200
Former Waste Stockpile Area at SWMU 39-001(b)	39-61601	0.0–1.0	RE39-17-139819	37	2020
Former Waste Stockpile Area at SWMU 39-001(b)	39-61602	0.0–1.0	RE39-17-139820	34	2030
Former Waste Stockpile Area at SWMU 39-001(b)	39-61603	0.0–1.0	RE39-17-139821	6	1819
Former Waste Stockpile Area at SWMU 39-001(b)	39-61604	0.0–1.0	RE39-17-139822	50	2260
Former Waste Stockpile Area at SWMU 39-001(b)	39-61605	0.0–1.0	RE39-17-139823	27	2063
Former Waste Stockpile Area at SWMU 39-001(b)	39-61606	0.0–1.0	RE39-17-139824	6	1805
Former Waste Stockpile Area at SWMU 39-001(b)	39-61607	0.0–1.0	RE39-17-139825	13	1915
Former Waste Stockpile Area at SWMU 39-001(b)	39-61608	0.0–1.0	RE39-17-139826	34	1984

Table 4.3-1 (continued)

Site	Location ID	Depth (ft)	Sample ID	Alpha (dpm)*	Beta/Gamma (dpm)*
Former Waste Stockpile Area at SWMU 39-001(b)	39-61609	0.0–1.0	RE39-17-139827	27	1980
Former Waste Stockpile Area at SWMU 39-001(b)	39-61610	0.0–1.0	RE39-17-139828	54	1903
Former Waste Stockpile Area at SWMU 39-001(b)	39-61611	0.0–1.0	RE39-17-139829	13	1949
Former Waste Stockpile Area at SWMU 39-001(b)	39-61612	0.0–1.0	RE39-17-139830	6	1875
Former Waste Stockpile Area at SWMU 39-001(b)	39-61613	0.0–1.0	RE39-17-139831	41	2070
Former Waste Stockpile Area at SWMU 39-001(b)	39-61614	0.0–1.0	RE39-17-139832	34	2220
Former Waste Stockpile Area at SWMU 39-001(b)	39-61615	0.0–1.0	RE39-17-139833	41	2002
Former Waste Stockpile Area at SWMU 39-001(b)	39-61616	0.0–1.0	RE39-17-139834	27	1875
Former Waste Stockpile Area at SWMU 39-001(b)	39-61617	0.0–1.0	RE39-17-139835	31	1915
Former Waste Stockpile Area at SWMU 39-001(b)	39-61618	0.0–1.0	RE39-17-139836	35	2015
Former Waste Stockpile Area at SWMU 39-001(b)	39-61619	0.0–1.0	RE39-17-139837	34	1952
Former Waste Stockpile Area at SWMU 39-001(b)	39-61620	0.0–1.0	RE39-17-139838	6	1819
Former Waste Stockpile Area at SWMU 39-001(b)	39-61621	0.0–1.0	RE39-17-139839	34	2050
Former Waste Stockpile Area at SWMU 39-001(b)	39-61622	0.0–1.0	RE39-17-139840	47	1861
Former Waste Stockpile Area at SWMU 39-001(b)	39-61623	0.0–1.0	RE39-17-139841	27	1861
Former Waste Stockpile Area at SWMU 39-001(b)	39-61624	0.0–1.0	RE39-17-139842	20	2020
Former Waste Stockpile Area at SWMU 39-001(b)	39-61625	0.0–1.0	RE39-17-139843	41	2020
Former Waste Stockpile Area at SWMU 39-001(b)	39-61626	0.0–1.0	RE39-17-139844	13	1889
Former Waste Stockpile Area at SWMU 39-001(b)	39-61627	0.0–1.0	RE39-17-139845	34	1942
Former Waste Stockpile Area at SWMU 39-001(b)	39-61628	0.0–1.0	RE39-17-139846	20	2120
Former Waste Stockpile Area at SWMU 39-001(b)	39-61629	0.0–1.0	RE39-17-139847	17	642
Former Waste Stockpile Area at SWMU 39-001(b)	39-61630	0.0–1.0	RE39-17-139848	0	824
Former Waste Stockpile Area at SWMU 39-001(b)	39-61631	0.0–1.0	RE39-17-139849	13	1956
Former Waste Stockpile Area at SWMU 39-001(b)	39-61632	1.0–2.0	RE39-17-139850	13	1999
Former Waste Stockpile Area at SWMU 39-001(b)	39-61633	1.0–2.0	RE39-17-139851	20	1880
Former Waste Stockpile Area at SWMU 39-001(b)	39-61634	1.0–2.0	RE39-17-139852	34	1967
Former Waste Stockpile Area at SWMU 39-001(b)	39-61635	1.0–2.0	RE39-17-139853	34	1902
Former Waste Stockpile Area at SWMU 39-001(b)	39-61636	1.0–2.0	RE39-17-139854	40	1804
Former Waste Stockpile Area at SWMU 39-001(b)	39-61637	1.0–2.0	RE39-17-139855	61	1909
Former Waste Stockpile Area at SWMU 39-001(b)	39-61649	1.0–2.0	RE39-17-143182	27	1916
Former Waste Stockpile Area at SWMU 39-001(b)	39-61650	1.0–2.0	RE39-17-143183	13	1873
Former Waste Stockpile Area at SWMU 39-001(b)	39-61651	0.0–1.0	RE39-17-143184	34	1956
SWMU 39-007(a)	39-10019	2.0–3.0	RE39-17-139911	20	1999
SWMU 39-007(a)	39-10019	4.0–5.0	RE39-17-139912	27	1999
SWMU 39-007(a)	39-604854	2.0–3.0	RE39-17-139913	54	1916
SWMU 39-007(a)	39-604854	4.0–5.0	RE39-17-139914	40	1873
SWMU 39-007(a)	39-61638	0.0–1.0	RE39-17-139856	16	2060
SWMU 39-007(a)	39-61638	2.0–3.0	RE39-17-139862	50	2040
SWMU 39-007(a)	39-61638	4.0–5.0	RE39-17-139868	20	1920

Table 4.3-1 (continued)

Site	Location ID	Depth (ft)	Sample ID	Alpha (dpm)*	Beta/Gamma (dpm)*
SWMU 39-007(a)	39-61639	0.0–1.0	RE39-17-139857	73	2160
SWMU 39-007(a)	39-61639	2.0–3.0	RE39-17-139863	50	2130
SWMU 39-007(a)	39-61639	4.0–5.0	RE39-17-139869	61	1783
SWMU 39-007(a)	39-61640	0.0–1.0	RE39-17-139858	39	2090
SWMU 39-007(a)	39-61640	2.0–3.0	RE39-17-139864	33	2260
SWMU 39-007(a)	39-61640	4.0–5.0	RE39-17-139870	81	2070
SWMU 39-007(a)	39-61641	0.0–1.0	RE39-17-139859	44	2070
SWMU 39-007(a)	39-61641	2.0–3.0	RE39-17-139865	44	2300
SWMU 39-007(a)	39-61641	4.0–5.0	RE39-17-139871	20	1768
SWMU 39-007(a)	39-61642	0.0–1.0	RE39-17-139860	16	2290
SWMU 39-007(a)	39-61642	2.0–3.0	RE39-17-139866	22	2140
SWMU 39-007(a)	39-61642	4.0–5.0	RE39-17-139872	47	1819
SWMU 39-007(a)	39-61643	0.0–1.0	RE39-17-139861	33	2030
SWMU 39-007(a)	39-61643	2.0–3.0	RE39-17-139867	50	2190
SWMU 39-007(a)	39-61643	4.0–5.0	RE39-17-139873	54	1905

* Results reported represent site background levels.

Table 5.1-1
Samples Collected and Analyses Requested in 2017
for the Former Waste Stockpile Area at SWMU 39-001(a)

Sample ID	Location ID	Phase II Map ID	Depth (ft)	Media	Metals (lead)	PCBs	Isotopic Uranium
Extent Samples							
RE39-17-139635	39-61429	1a-1	0.0–1.0	Soil	2017-1805[a]	2017-1805	2017-1805
RE39-17-139636	39-61430	1a-2	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139637	39-61431	1a-3	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139638	39-61432	1a-8	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139639	39-61433	1a-9	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139640	39-61434	1a-10	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139641	39-61435	1a-21	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139642	39-61436	1a-32	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139643	39-61437	1a-45	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139644	39-61438	1a-46	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139645	39-61439	1a-57	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139646	39-61440	1a-58	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139647	39-61441	1a-69	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139648	39-61442	1a-70	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805

Table 5.1-1 (continued)

Sample ID	Location ID	Phase II Map ID	Depth (ft)	Media	Metals (lead)	PCBs	Isotopic Uranium
Extent Samples (continued)							
RE39-17-139649	39-61443	1a-81	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139650	39-61444	1a-82	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139651	39-61445	1a-87	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139652	39-61446	1a-88	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-17-139653	39-61447	1a-89	0.0–1.0	Soil	2017-1805	2017-1805	2017-1805
RE39-10-139654	39-61448	1a-95	0.0–1.0	Soil	2017-1825	2017-1825	2017-1825
RE39-10-139655	39-61449	1a-98	0.0–1.0	Soil	2017-1826	2017-1826	2017-1826
RE39-10-139656	39-61450	1a-99	0.0–1.0	Soil	2017-1826	2017-1826	2017-1826
RE39-10-139657	39-61451	1a-94	0.0–1.0	Soil	2017-1825	2017-1825	2017-1825
Confirmation Samples[b]							
RE39-17-139660	39-61454	1a-4	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139661	39-61455	1a-5	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139662	39-61456	1a-6	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139663	39-61457	1a-7	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139664	39-61458	1a-11	1.0–2.0	Soil	2017-2562	2017-2562	2017-2562
RE39-17-139665	39-61459	1a-12	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139666	39-61460	1a-13	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139667	39-61461	1a-14	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139668	39-61462	1a-15	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139669	39-61463	1a-16	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139670	39-61464	1a-17	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139671	39-61465	1a-18	1.0–2.0	Soil	2017-2562	2017-2562	2017-2562
RE39-17-139672	39-61466	1a-19	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139673	39-61467	1a-20	1.0–2.0	Soil	2017-2562	2017-2562	2017-2562
RE39-17-139674	39-61468	1a-22	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139675	39-61469	1a-23	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139676	39-61470	1a-24	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-147330	39-61470	1a-24	2.0–3.0	Soil	—[c]	—	2017-2884
RE39-17-139677	39-61471	1a-25	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139678	39-61472	1a-26	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-147331	39-61472	1a-26	2.0–3.0	Soil	—	—	2017-2884
RE39-17-139679	39-61473	1a-27	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139680	39-61474	1a-28	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-147332	39-61474	1a-28	2.0–3.0	Soil	—	—	2017-2884
RE39-17-139681	39-61475	1a-29	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139682	39-61476	1a-30	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-139683	39-61477	1a-31	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-139684	39-61478	1a-33	1.0–2.0	Soil	2017-2562	2017-2562	2017-2562

Table 5.1-1 (continued)

Sample ID	Location ID	Phase II Map ID	Depth (ft)	Media	Metals (lead)	PCBs	Isotopic Uranium
RE39-17-139685	39-61479	1a-34	1.0–2.0	Soil	2017-2562	2017-2562	2017-2562
RE39-17-139686	39-61480	1a-35	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139687	39-61481	1a-36	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-147333	39-61481	1a-36	2.0–3.0	Soil	—	—	2017-2884
RE39-17-143130	39-61481	1a-36	3.0–4.0	Soil	—	—	2017-356
RE39-17-139688	39-61482	1a-37	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139689	39-61483	1a-38	1.0–2.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139690	39-61484	1a-39	3.0–4.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139691	39-61485	1a-40	3.0–4.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139692	39-61486	1a-41	3.0–4.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139693	39-61487	1a-42	3.0–3.0	Soil	2017-2538	2017-2538	2017-2538
RE39-17-139694	39-61488	1a-43	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-147334	39-61488	1a-43	2.0–3.0	Soil	—	—	2017-2884
RE39-17-139695	39-61489	1a-44	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-139696	39-61490	1a-47	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-139697	39-61491	1a-48	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-139698	39-61492	1a-49	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-139699	39-61493	1a-50	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-139700	39-61494	1a-51	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-139701	39-61495	1a-52	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-139702	39-61496	1a-53	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-147335	39-61496	1a-53	2.0–3.0	Soil	—	—	2017-2884
RE39-17-139703	39-61497	1a-54	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-147336	39-61497	1a-54	2.0–3.0	Soil	—	—	2017-2884
RE39-17-139704	39-61498	1a-55	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-147337	39-61498	1a-55	2.0–3.0	Soil	—	—	2017-2884
RE39-17-139705	39-61499	1a-56	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-139706	39-61500	1a-59	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-139707	39-61501	1a-60	1.0–2.0	Soil	2017-2593	2017-2593	2017-2593
RE39-17-139708	39-61502	1a-61	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139709	39-61503	1a-62	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139710	39-61504	1a-63	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139711	39-61505	1a-64	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139712	39-61506	1a-65	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139713	39-61507	1a-66	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139714	39-61508	1a-67	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139715	39-61509	1a-68	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139716	39-61510	1a-71	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139717	39-61511	1a-72	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594

Table 5.1-1 (continued)

Sample ID	Location ID	Phase II Map ID	Depth (ft)	Media	Metals (lead)	PCBs	Isotopic Uranium
RE39-17-139718	39-61512	1a-73	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-147338	39-61512	1a-73	2.0–3.0	Soil	—	—	2017-2884
RE39-17-139719	39-61513	1a-74	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139720	39-61514	1a-75	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139721	39-61515	1a-76	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139722	39-61516	1a-77	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139723	39-61517	1a-78	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139724	39-61518	1a-79	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139725	39-61519	1a-80	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139726	39-61520	1a-83	1.0–2.0	Soil	2017-2594	2017-2594	2017-2594
RE39-17-139727	39-61521	1a-84	1.0–2.0	Soil	2017-2595	2017-2595	2017-2595
RE39-17-139728	39-61522	1a-85	1.0–2.0	Soil	2017-2595	2017-2595	2017-2595
RE39-17-139729	39-61523	1a-86	1.0–2.0	Soil	2017-2595	2017-2595	2017-2595
RE39-17-139730	39-61524	1a-90	1.0–2.0	Soil	2017-2595	2017-2595	2017-2595
RE39-17-139731	39-61525	1a-91	1.0–2.0	Soil	2017-2595	2017-2595	2017-2595
RE39-17-139732	39-61526	1a-92	1.0–2.0	Soil	2017-2595	2017-2595	2017-2595
RE39-17-139733	39-61527	1a-93	1.0–2.0	Soil	2017-2595	2017-2595	2017-2595
RE39-17-143126	39-61644	1a-96	1.0–2.0	Soil	2017-2595	2017-2595	2017-2595
RE39-17-143127	39-61645	1a-97	1.0–2.0	Soil	2017-2595	2017-2595	2017-2595

Note: Shading denotes sample locations excavated during 2017 cleanup activities.

[a] Analytical request number.

[b] Confirmation samples collected at bottom of excavation.

[c] — = Not analyzed.

Table 5.1-2
PCBs Detected in 2017 Samples from the Former Waste Stockpile Area at SWMU 39-001(a)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Residential SSL[a]				**2.43**	**2.43**	**1.14**	**2.43**	**1.0**[b]
Extent Samples								
RE39-17-139635	39-61429	0.0–1.0	Soil	—[c]	—	0.00195 (J)	—	0.00195
RE39-17-139637	39-61431	0.0–1.0	Soil	—	—	0.00262	—	0.00262
RE39-17-139638	39-61432	0.0–1.0	Soil	—	—	0.0264	—	0.0264
RE39-17-139641	39-61435	0.0–1.0	Soil	—	—	0.00423 (J)	—	0.00423
RE39-17-139642	39-61436	0.0–1.0	Soil	—	—	0.00189 (J)	—	0.00189
RE39-17-139643	39-61437	0.0–1.0	Soil	—	—	0.0128	0.00504	0.01784
RE39-17-139644	39-61438	0.0–1.0	Soil	—	—	0.00485	—	0.00485
RE39-17-139645	39-61439	0.0–1.0	Soil	—	—	0.0448	—	0.0448
RE39-17-139646	39-61440	0.0–1.0	Soil	—	—	0.0117	—	0.0117
RE39-17-139647	39-61441	0.0–1.0	Soil	—	—	0.00125 (J)	—	0.00125
RE39-17-139648	39-61442	0.0–1.0	Soil	—	—	0.00224 (J)	—	0.00224
RE39-17-139649	39-61443	0.0–1.0	Soil	—	—	0.00791	—	0.00791
RE39-17-139650	39-61444	0.0–1.0	Soil	—	—	0.0102	—	0.0102
RE39-17-139651	39-61445	0.0–1.0	Soil	—	0.0518	0.154	—	0.2058
RE39-17-139652	39-61446	1.0–2.0	Soil	—	—	0.31	—	0.31
RE39-17-139653	39-61447	1.0–2.0	Soil	—	—	0.00385	—	0.00385
RE39-17-139654	39-61448	1.0–2.0	Soil	—	—	0.0221	—	0.0221
RE39-17-139656	39-61450	1.0–2.0	Soil	0.0378	—	—	—	0.0378
RE39-17-139657	39-61451	1.0–2.0	Soil	—	0.0103	—	—	0.0103
Confirmation Samples[d]								
RE39-17-139661	39-61455	1.0–2.0	Soil	—	—	0.0073	—	0.0073
RE39-17-139662	39-61456	1.0–2.0	Soil	—	—	0.0265	—	0.0265
RE39-17-139663	39-61457	1.0–2.0	Soil	—	—	0.0177	—	0.0177
RE39-17-139664	39-61458	1.0–2.0	Soil	—	—	0.0016 (J)	—	0.0016
RE39-17-139666	39-61460	1.0–2.0	Soil	—	—	0.4	—	0.4
RE39-17-139667	39-61461	1.0–2.0	Soil	—	—	0.228	—	0.228
RE39-17-139668	39-61462	1.0–2.0	Soil	—	0.00685	0.0127	—	0.01955
RE39-17-139670	39-61464	1.0–2.0	Soil	—	0.0242	0.0412	—	0.0654
RE39-17-139671	39-61465	1.0–2.0	Soil	—	0.00577	0.0119	—	0.01767
RE39-17-139672	39-61466	1.0–2.0	Soil	—	—	0.00318 (J)	—	0.00318
RE39-17-139675	39-61469	1.0–2.0	Soil	—	0.0565	0.124	—	0.1805
RE39-17-139676	39-61470	1.0–2.0	Soil	—	—	**3.18**	—	**3.18**
RE39-17-147330	39-61470	2.0–3.0	Soil	—		0.504	—	0.504
RE39-17-139677	39-61471	1.0–2.0	Soil	—	0.163	0.247	—	0.41
RE39-17-139678	39-61472	1.0–2.0	Soil	—	0.54	0.728	—	**1.268**

Table 5.1-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Residential SSL[a]				**2.43**	**2.43**	**1.14**	**2.43**	**1.0**[b]
RE39-17-147331	39-61472	2.0–3.0	Soil	—	0.0109	0.0118	—	0.0227
RE39-17-139679	39-61473	1.0–2.0	Soil	—	0.0941	0.216	—	0.3101
RE39-17-139680	39-61474	1.0–2.0	Soil	—	0.438	**1.19**	0.371	**1.999**
RE39-17-147332	39-61474	2.0–3.0	Soil	—	0.00362	0.00658	—	0.0102
RE39-17-139681	39-61475	1.0–2.0	Soil	—	0.00557	0.00919	0.00301 (J)	0.01777
RE39-17-139682	39-61476	1.0–2.0	Soil	—	—	0.0135	0.00475	0.01825
RE39-17-139683	39-61477	1.0–2.0	Soil	—	0.0122	0.0331	—	0.0453
RE39-17-139687	39-61481	1.0–2.0	Soil	—	—	**1.91**	0.555	**2.465**
RE39-17-147333	39-61481	2.0–3.0	Soil	—	—	**5.28**	—	**5.28**
RE39-17-143130	39-61481	3.0–4.0	Soil	—	—	0.0388	—	0.0388
RE39-17-139688	39-61482	1.0–2.0	Soil	—	0.0102	0.02	0.00602	0.03622
RE39-17-139689	39-61483	1.0–2.0	Soil	—	—	0.356	0.223	0.579
RE39-17-139690	39-61484	3.0–4.0	Soil	—	—	0.244	—	0.244
RE39-17-139691	39-61485	3.0–4.0	Soil	—	—	0.284	—	0.284
RE39-17-139692	39-61486	3.0–4.0	Soil	—	—	0.547	—	0.547
RE39-17-139693	39-61487	3.0–4.0	Soil	—	—	0.00613	—	0.00613
RE39-17-139694	39-61488	1.0–2.0	Soil		0.496	**1.1**	—	**1.596**
RE39-17-139695	39-61489	1.0–2.0	Soil	—	—	0.00218 (J)	—	0.00218
RE39-17-139696	39-61490	1.0–2.0	Soil	—	0.0488	0.148	—	0.1968
RE39-17-139697	39-61491	1.0–2.0	Soil	—	0.0414	0.0947	—	0.1361
RE39-17-139698	39-61492	1.0–2.0	Soil	—	0.0196	0.0414	—	0.061
RE39-17-139699	39-61493	1.0–2.0	Soil	—	0.0195	0.0407	—	0.0602
RE39-17-139700	39-61494	1.0–2.0	Soil	—	—	0.238	—	0.238
RE39-17-139701	39-61495	1.0–2.0	Soil	—	—	0.0556	—	0.0556
RE39-17-139702	39-61496	1.0–2.0	Soil	—	0.901	0.704	0.216	**1.821**
RE39-17-139703	39-61497	1.0–2.0	Soil	—	0.768	0.424	0.134	**1.326**
RE39-17-147336	39-61497	1.0–2.0	Soil	—	0.101	0.148	—	0.249
RE39-17-139704	39-61498	1.0–2.0	Soil	—	0.709	0.987	0.299	**1.995**
RE39-17-139705	39-61499	1.0–2.0	Soil	—	0.0384	0.0433	0.0142	0.0959
RE39-17-139706	39-61500	1.0–2.0	Soil	—	—	0.00833	0.00308 (J)	0.01141
RE39-17-139707	39-61501	1.0–2.0	Soil	—	—	0.221	0.072	0.293
RE39-17-139708	39-61502	1.0–2.0	Soil	—	—	0.369	—	0.369
RE39-17-139709	39-61503	1.0–2.0	Soil	—	—	0.00813	—	0.00813
RE39-17-139710	39-61504	1.0–2.0	Soil	—	—	0.0551	—	0.0551
RE39-17-139711	39-61505	1.0–2.0	Soil	—	0.131	0.26	—	0.391
RE39-17-139712	39-61506	1.0–2.0	Soil	—	0.00945	0.0165	—	0.02595
RE39-17-139713	39-61507	1.0–2.0	Soil	—	0.0524	0.0763	—	0.1287
RE39-17-139715	39-61509	1.0–2.0	Soil	—	—	0.00582	—	0.00582

Table 5.1-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Residential SSL[a]				**2.43**	**2.43**	**1.14**	**2.43**	**1.0**[b]
RE39-17-139716	39-61510	1.0–2.0	Soil	—	—	0.00217 (J)	—	0.00217
RE39-17-139717	39-61511	1.0–2.0	Soil	—	0.0127	0.0081	—	0.0208
RE39-17-139718	39-61512	1.0–2.0	Soil	—	0.342	0.747	—	**1.089**
RE39-17-147338	39-61512	2.0–3.0	Soil	—	0.00186 (J)	0.00222 (J)	—	0.00408
RE39-17-139719	39-61513	1.0–2.0	Soil	—	—	0.101	—	0.101
RE39-17-139720	39-61514	1.0–2.0	Soil	—	—	0.13	—	0.13
RE39-17-139721	39-61515	1.0–2.0	Soil	—	—	0.0356	—	0.0356
RE39-17-139722	39-61516	1.0–2.0	Soil	—	0.0253	0.0517	—	0.077
RE39-17-139723	39-61517	1.0–2.0	Soil	—	—	0.197	—	0.197
RE39-17-139724	39-61518	1.0–2.0	Soil	—	—	0.00221 (J)	—	0.00221
RE39-17-139725	39-61519	1.0–2.0	Soil	—	—	0.00293 (J)	—	0.00293
RE39-17-139726	39-61520	1.0–2.0	Soil	—	—	0.0447	—	0.0447
RE39-17-139727	39-61521	1.0–2.0	Soil	—	0.0418	0.146	0.0296	0.2174
RE39-17-139728	39-61522	1.0–2.0	Soil	—	0.00191 (J)	0.00528	—	0.00719
RE39-17-139729	39-61523	1.0–2.0	Soil	—	0.0461	0.111	0.0215	0.1786
RE39-17-139730	39-61524	1.0–2.0	Soil	—	—	0.00461	—	0.00461
RE39-17-139731	39-61525	1.0–2.0	Soil	—	0.0289	0.108	0.024	0.1609
RE39-17-139732	39-61526	1.0–2.0	Soil	—	—	0.00705	—	0.00705
RE39-17-139733	39-61527	1.0–2.0	Soil	—	0.0166	0.0517	0.0098	0.0781
RE39-17-143126	39-61644	1.0–2.0	Soil	—	—	0.00203 (J)	—	0.00203
RE39-17-143127	39-61645	1.0–2.0	Soil	—	0.00682	0.0264	0.0059	0.03912

Note: Units are mg/kg. Data qualifiers are defined in Appendix A. Shading denotes sample locations excavated during 2017 cleanup activities.

[a] SSLs are from NMED (2017, 602273). If chemical has both carcinogenic and noncarcinogenic SSLs, the lower of the two is presented.

[b] Default cleanup level from 2005 Consent Order.

[c] — = Not detected.

[d] Confirmation samples collected at bottom of excavation.

Table 5.1-3
Uranium-238 Detected above BV in 2017
Samples from the Former Waste Stockpile Area at SWMU 39-001(a)

Sample ID	Location ID	Depth (ft)	Media	Uranium-238
Soil BV[a]				**2.29**
Residential SAL[b]				**88**
Extent Samples				
RE39-17-139645	39-61439	0.0–1.0	Soil	2.98
Confirmation Samples[c]				
RE39-17-139678	39-61472	1.0–2.0	Soil	2.57
RE39-17-139687	39-61481	1.0–2.0	Soil	2.95
RE39-17-139703	39-61497	1.0–2.0	Soil	2.45 (J+)

Notes: Units are pCi/g. Data qualifiers are defined in Appendix A. Shading denotes sample location excavated during 2017 cleanup activities to remove PCBs above 1.0 mg/kg.

[a] BVs from LANL (LANL 1998, 059730).

[b] SALs from LANL (2015, 600929).

[c] Confirmation samples collected at bottom of excavation.

Table 5.1-4
Lead Detected above BV in 2017
Samples from the Former Waste Stockpile Area at SWMU 39-001(a)

Sample ID	Location ID	Depth (ft)	Media	Lead
Soil BV[a]				**22.3**
Residential SSL[b]				**400**
RE39-17-139680	39-61474	0.0–1.0	Soil	22.6 (J-)

Notes: Units are mg/kg. Data qualifiers are defined in Appendix A. Shading denotes sample locations excavated during 2017 cleanup activities.

[a] BVs from LANL (1998, 059730).

[b] SSLs are from NMED (2017, 602273).

Table 5.2-1
Samples Collected and Analysis Requested in 2017
for the Former Capacitor Staging Areas at SWMU 39-001(a)

Sample ID	Location ID	Phase II Map ID	Depth (ft)	Media	PCBs	SVOCs
Northern Capacitor Staging Area						
Extent Samples						
RE39-17-139751	39-61545	1a-117	0.0–1.0	Soil	2017-1826[a]	—[b]
RE39-17-139757	39-61545	1a-117	2.0–3.0	Soil	2017-1826	—
RE39-17-139763	39-61545	1a-117	4.0–5.0	Soil	2017-1826	—
RE39-17-139752	39-61546	1a-118	0.0–1.0	Soil	2017-1826	—
RE39-17-139758	39-61546	1a-118	2.0–3.0	Soil	2017-1826	—
RE39-17-139764	39-61546	1a-118	4.0–5.0	Soil	2017-1826	—

Table 5.2-1 (continued)

Sample ID	Location ID	Phase II Map ID	Depth (ft)	Media	PCBs	SVOCs
RE39-17-141556	39-61547	1a-119	0.0–1.0	Soil	2017-1888	—
RE39-17-139759	39-61547	1a-119	2.0–3.0	Soil	2017-1826	—
RE39-17-139765	39-61547	1a-119	4.0–5.0	Soil	2017-1826	—
Confirmation Samples[c]						
RE39-17-139734	39-61528	1a-100	2.0–3.0	Soil	2017-1825	—
RE39-17-139735	39-61529	1a-101	2.0–3.0	Soil	2017-1825	—
RE39-17-139748	39-61542	1a-102	4.0–5.0	Soil	2017-1826	—
RE39-17-139736	39-61530	1a-103	2.0–3.0	Soil	2017-1825	—
RE39-17-139737	39-61531	1a-104	2.0–3.0	Soil	2017-1825	—
RE39-17-139738	39-61532	1a-105	2.0–3.0	Soil	2017-1825	—
RE39-17-139739	39-61533	1a-106	2.0–3.0	Soil	2017-1825	—
RE39-17-139740	39-61534	1a-107	2.0–3.0	Soil	2017-1825	—
RE39-17-143185	39-61652	1a-123	0.0–1.0	Soil	2017-2538	2017-2538
RE39-17-143186	39-61652	1a-123	1.0–1.5	Soil	2017-2538	2017-2538
Southern Capacitor Staging Area						
Extent Samples						
RE39-17-139754	39-61548	1a-120	0.0–1.0	Soil	2017-1826	—
RE39-17-139760	39-61548	1a-120	2.0–3.0	Soil	2017-1826	—
RE39-17-139766	39-61548	1a-120	4.0–5.0	Soil	2017-1826	—
RE39-17-141557	39-61549	1a-121	0.0–1.0	Soil	2017-1826	—
RE39-17-139761	39-61549	1a-121	2.0–3.0	Soil	2017-1826	—
RE39-19-139767	39-61549	1a-121	3.0–4.0	Soil	2017-1826	—
RE39-17-139756	39-61550	1a-122	0.0–1.0	Soil	2017-1826	—
RE39-17-139762	39-61550	1a-122	2.0–3.0	Soil	2017-1826	—
RE39-17-139768	39-61550	1a-122	4.0–5.0	Soil	2017-1826	—
RE39-17-139749	39-61543	1a-108	4.0–5.0	Soil	2017-1826	—
RE39-17-139750	39-61544	1a-109	4.0–5.0	Soil	2017-1826	—
RE39-17-139741	39-61535	1a-110	2.0–3.0	Soil	2017-1825	—
RE39-17-139742	39-61536	1a-111	2.0–3.0	Soil	2017-1825	—
RE39-17-139743	39-61537	1a-112	2.0–3.0	Soil	2017-1826	—
RE39-17-139744	39-61538	1a-113	2.0–3.0	Soil	2017-1826	—
RE39-17-139745	39-61539	1a-114	2.0–3.0	Soil	2017-1826	—
RE39-17-139747	39-61541	1a-115	2.0–3.0	Soil	2017-1826	—
RE39-17-139746	39-61540	1a-116	2.0–3.0	Soil	2017-1826	—

[a] Analytical request number.

[b] — = Not analyzed.

[c] Confirmation samples collected at a depth of 0.0 to 1.0 ft below the depth at which each decision unit was excavated during 2009/2010 cleanup activities (i.e., 2.0 to 3.0 ft bgs or 4.0 to 5.0 ft bgs).

Table 5.2-2
PCBs Detected in 2017 Samples from the Former Capacitor Staging Areas at SWMU 39-001(a)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1242	Aroclor-1254	Aroclor-1260	Total PCBs
Residential SSL[a]				**2.43**	**1.14**	**2.43**	**1.0**[b]
Northern Capacitor Staging Area							
Extent Samples							
RE39-17-139751	39-61545	0.0–1.0	Soil	—[c]	0.0602 (J)	—	0.0602
RE39-17-139757	39-61545	2.0–3.0	Soil	—	0.00767	—	0.00767
RE39-17-139763	39-61545	4.0–5.0	Soil	—	0.00698	—	0.00698
RE39-17-139752	39-61546	0.0–1.0	Soil	—	0.0263	—	0.0263
RE39-17-139758	39-61546	2.0–3.0	Soil	—	0.00667 (J)	—	0.00667
RE39-17-139764	39-61546	4.0–5.0	Soil	—	0.00569 (J)	—	0.00569
RE39-17-141556	39-61547	0.0–1.0	Soil	0.0114	—	—	0.0114
Confirmation Samples[d]							
RE39-17-139734	39-61528	2.0–3.0	Soil	0.0105		—	0.0105
RE39-17-139735	39-61529	2.0–3.0	Soil	—	0.00567 (J)	—	0.00567
RE39-17-139736	39-61530	2.0–3.0	Soil	—	—	0.00906	0.00906
RE39-17-139737	39-61531	2.0–3.0	Soil	—	—	0.00601 (J)	0.00601
RE39-17-139738	39-61532	2.0–3.0	Soil	0.00574 (J)	—	—	0.00574
RE39-17-139739	39-61533	2.0–3.0	Soil	0.00661 (J)	—	—	0.00661
RE39-17-139740	39-61534	2.0–3.0	Soil	—	0.00663 (J)	—	0.00663
RE39-17-143185	39-61652	0.0–1.0	Soil	—	0.0405	0.0165	0.057
RE39-17-143186	39-61652	1.0–1.5	Soil	—	0.00282 (J)	—	0.00282
Southern Capacitor Staging Area							
Extent Samples							
RE39-17-139754	39-61548	0.0–1.0	Soil	0.0153	—	—	0.0153
RE39-17-139760	39-61548	2.0–3.0	Soil	—	0.00884	—	0.00884
RE39-17-139766	39-61548	4.0–5.0	Soil	—	0.00364 (J)	—	0.00364
RE39-17-141557	39-61549	0.0–1.0	Soil	0.0179	—	—	0.0179
RE39-17-139767	39-61549	4.0–5.0	Soil	0.00667 (J)	—	—	0.00667
RE39-17-139756	39-61550	0.0–1.0	Soil	—	0.00667 (J)	—	0.00667
RE39-17-139762	39-61550	2.0–3.0	Soil	0.00481 (J)	—	—	0.00481
RE39-17-139768	39-61550	4.0–5.0	Soil	0.00421 (J)	—	—	0.00421
Confirmation Samples[d]							
RE39-17-139741	39-61535	2.0–3.0	Soil	0.0103	—	—	0.0103
RE39-17-139742	39-61536	2.0–3.0	Soil	—	0.00433 (J)	—	0.00433
RE39-17-139743	39-61537	2.0–3.0	Soil	—	0.336	—	0.336
RE39-17-139744	39-61538	2.0–3.0	Soil	—	0.383	—	0.383
RE39-17-139745	39-61539	2.0–3.0	Soil	0.0236	—	—	0.0236
RE39-17-139747	39-61541	2.0–3.0	Soil	0.00429 (J)	—	—	0.00429
RE39-17-139749	39-61543	4.0–5.0	Soil	—	0.0288	—	0.0288
RE39-17-139750	39-61544	4.0–5.0	Soil	—	0.0201	—	0.0201

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

[a] SSLs are from NMED (2017, 602273). If chemical has both carcinogenic and noncarcinogenic SSLs, the lower of the two is presented.

[b] Default cleanup level from 2005 Consent Order.

[c] — = Not detected.

[d] Confirmation samples collected at a depth of 0.0 to 1.0 ft below the depth at which each decision unit was excavated during 2009/2010 cleanup activities (i.e., 2.0 to 3.0 ft bgs or 4.0 to 5.0 ft bgs).

Table 5.3-1
Samples Collected and Analyses Requested in 2017
for the Former Waste Stockpile Area at SWMU 39-001(b)

Sample ID	Location ID	Phase II Map ID	Depth (ft)	Media	PCBs	SVOCs
Extent Samples						
RE39-17-139769	39-61551	1b-1	0.0-1.0	Soil	2017-1889[a]	2017-1889
RE39-17-139770	39-61552	1b-2	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139771	39-61553	1b-3	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139772	39-61554	1b-4	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139773	39-61555	1b-5	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139775	39-61557	1b-6	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139776	39-61558	1b-7	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139777	39-61559	1b-8	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139778	39-61560	1b-9	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139779	39-61561	1b-10	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139780	39-61562	1b-11	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139781	39-61563	1b-12	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139782	39-61564	1b-13	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139783	39-61565	1b-14	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139784	39-61566	1b-15	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139785	39-61567	1b-16	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139786	39-61568	1b-17	0.0-1.0	Soil	2017-1889	2017-1889
RE39-17-139787	39-61569	1b-18	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139788	39-61570	1b-19	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139790	39-61572	1b-20	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-143184	39-61651	1b-20a	0.0-1.0	Soil	2017-2351	2017-2351
RE39-17-139791	39-61573	1b-21	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139792	39-61574	1b-22	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139793	39-61575	1b-23	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139794	39-61576	1b-24	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139795	39-61577	1b-25	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139796	39-61578	1b-87	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139797	39-61579	1b-26	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139798	39-61580	1b-28	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139799	39-61581	1b-29	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139800	39-61582	1b-30	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139801	39-61583	1b-31	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139802	39-61584	1b-32	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139803	39-61585	1b-33	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139804	39-61586	1b-34	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139805	39-61587	1b-35	0.0-1.0	Soil	2017-1861	2017-1861

Table 5.3-1 (continued)

Sample ID	Location ID	Phase II Map ID	Depth (ft)	Media	PCBs	SVOCs
RE39-17-139806	39-61588	1b-36	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139807	39-61589	1b-37	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139808	39-61590	1b-38	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139809	39-61591	1b-39	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139810	39-61592	1b-40	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139811	39-61593	1b-41	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139812	39-61594	1b-42	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139813	39-61595	1b-43	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139814	39-61596	1b-44	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139815	39-61597	1b-45	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139816	39-61598	1b-46	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139817	39-61599	1b-47	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139818	39-61600	1b-48	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139819	39-61601	1b-49	0.0-1.0	Soil	2017-1861	2017-1861
RE39-17-139820	39-61602	1b-50	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139821	39-61603	1b-51	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139822	39-61604	1b-52	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139823	39-61605	1b-53	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139824	39-61606	1b-54	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139825	39-61607	1b-55	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139826	39-61608	1b-56	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139827	39-61609	1b-57	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139828	39-61610	1b-58	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139829	39-61611	1b-59	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139830	39-61612	1b-60	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139831	39-61613	1b-61	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139832	39-61614	1b-62	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139833	39-61615	1b-65	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139834	39-61616	1b-66	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139835	39-61617	1b-67	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139836	39-61618	1b-68	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139837	39-61619	1b-69	0.0-1.0	Soil	2017-1860	2017-1860
RE39-17-139838	39-61620	1b-70	0.0-1.0	Soil	2017-1859	2017-1859
RE39-17-139839	39-61621	1b-75	0.0-1.0	Soil	2017-1859	2017-1859
RE39-17-139840	39-61622	1b-76	0.0-1.0	Soil	2017-1888	2017-1888
RE39-17-139841	39-61623	1b-77	0.0-1.0	Soil	2017-1859	2017-1859
RE39-17-139842	39-61624	1b-78	0.0-1.0	Soil	2017-1859	2017-1859
RE39-17-139843	39-61625	1b-79	0.0-1.0	Soil	2017-1859	2017-1859
RE39-17-139844	39-61626	1b-80	0.0-1.0	Soil	2017-1859	2017-1859
RE39-17-139845	39-61627	1b-81	0.0-1.0	Soil	2017-1859	2017-1859

Table 5.3-1 (continued)

Sample ID	Location ID	Phase II Map ID	Depth (ft)	Media	PCBs	SVOCs
RE39-17-139846	39-61628	1b-82	0.0-1.0	Soil	2017-1859	2017-1859
RE39-17-139847	39-61629	1b-85	0.0-1.0	Soil	2017-1859	2017-1859
RE39-17-139848	39-61630	1b-86	0.0-1.0	Soil	2017-1859	2017-1859
RE39-17-139849	39-61631	1b-27	0.0-1.0	Soil	2017-1888	2017-1888
Confirmation Samples[b]						
RE39-17-139850	39-61632	1b-64	1.0-2.0	Soil	2017-2349	2017-2349
RE39-17-139851	39-61633	1b-63	1.0-2.0	Soil	2017-2349	2017-2349
RE39-17-139852	39-61634	1b-72	1.0-2.0	Soil	2017-2349	2017-2349
RE39-17-139853	39-61635	1b-71	1.0-2.0	Soil	2017-2349	2017-2349
RE39-17-139854	39-61636	1b-73	1.0-2.0	Soil	2017-2349	2017-2349
RE39-17-139855	39-61637	1b-74	1.0-2.0	Soil	2017-2349	2017-2349
RE39-17-143182	39-61649	1b-84	1.0-2.0	Soil	2017-2351	2017-2351
RE39-17-143183	39-61650	1b-83	1.0-2.0	Soil	2017-2351	2017-2351

[a] Analytical request number.

[b] Confirmation samples collected at bottom of excavation.

Table 5.3-2
PCBs Detected in 2017 Samples from the Former Waste Stockpile Area at SWMU 39-001(b)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Residential SSL[a]				**2.43**	**2.43**	**1.14**	**2.43**	**1.0**[b]
Extent Samples								
RE39-17-139769	39-61551	0.0-1.0	Soil	0.0414	—[c]	—	—	0.0414
RE39-17-139770	39-61552	0.0-1.0	Soil	0.0306	—	—	—	0.0306
RE39-17-139771	39-61553	0.0-1.0	Soil	0.0389	—	—	—	0.0389
RE39-17-139772	39-61554	0.0-1.0	Soil	0.025	—	—	—	0.025
RE39-17-139773	39-61555	0.0-1.0	Soil	0.0282	—	—	—	0.0282
RE39-17-139775	39-61557	0.0-1.0	Soil	0.0186	—	—	—	0.0186
RE39-17-139776	39-61558	0.0-1.0	Soil	0.0307	—	—	—	0.0307
RE39-17-139777	39-61559	0.0-1.0	Soil	0.0266	—	—	—	0.0266
RE39-17-139778	39-61560	0.0-1.0	Soil	0.0215	—	—	—	0.0215
RE39-17-139779	39-61561	0.0-1.0	Soil	0.0197	—	—	—	0.0197
RE39-17-139780	39-61562	0.0-1.0	Soil	0.0132	—	—	—	0.0132
RE39-17-139781	39-61563	0.0-1.0	Soil	0.019	—	—	—	0.019
RE39-17-139782	39-61564	0.0-1.0	Soil	0.0126	—	—	—	0.0126
RE39-17-139783	39-61565	0.0-1.0	Soil	0.018	—	—	—	0.018
RE39-17-139784	39-61566	0.0-1.0	Soil	0.0217	—	—	—	0.0217
RE39-17-139785	39-61567	0.0-1.0	Soil	0.019	—	—	—	0.019
RE39-17-139786	39-61568	0.0-1.0	Soil	0.0115	—		—	0.0115

Table 5.3-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Residential SSL[a]				**2.43**	**2.43**	**1.14**	**2.43**	**1.0**[b]
RE39-17-139787	39-61569	0.0-1.0	Soil	—	—	0.161	—	0.161
RE39-17-139788	39-61570	0.0-1.0	Soil	0.0232	—	—	—	0.0232
RE39-17-139790	39-61572	0.0-1.0	Soil	—	—	0.776	—	0.776
RE39-17-139791	39-61573	0.0-1.0	Soil	0.012	—	—	—	0.012
RE39-17-139792	39-61574	0.0-1.0	Soil	0.029	—	—	—	0.029
RE39-17-139793	39-61575	0.0-1.0	Soil	0.034	—	—	—	0.034
RE39-17-139794	39-61576	0.0-1.0	Soil	0.0112	—	—	—	0.0112
RE39-17-139795	39-61577	0.0-1.0	Soil	0.0292	—	—	—	0.0292
RE39-17-139796	39-61578	0.0-1.0	Soil	0.0104	—	—	—	0.0104
RE39-17-139797	39-61579	0.0-1.0	Soil	0.0125	—	—	—	0.0125
RE39-17-139798	39-61580	0.0-1.0	Soil	0.00857	—	—	—	0.00857
RE39-17-139799	39-61581	0.0-1.0	Soil	0.00716	—	—	—	0.00716
RE39-17-139800	39-61582	0.0-1.0	Soil	—	—	0.0986	—	0.0986
RE39-17-139801	39-61583	0.0-1.0	Soil	0.0133	—	—	—	0.0133
RE39-17-139802	39-61584	0.0-1.0	Soil	—	—	0.00256 (J)	—	0.00256
RE39-17-139803	39-61585	0.0-1.0	Soil	—	—	0.0112	0.00405	0.01525
RE39-17-139807	39-61589	0.0-1.0	Soil	—	—	0.0145	0.00406	0.01856
RE39-17-139810	39-61592	0.0-1.0	Soil	—	0.00439	0.00797	0.00274 (J)	0.0151
RE39-17-139811	39-61593	0.0-1.0	Soil	—	—	0.0351	0.00934	0.04444
RE39-17-139812	39-61594	0.0-1.0	Soil	—	—	0.00585	—	0.00585
RE39-17-139814	39-61596	0.0-1.0	Soil	—	—	0.0297	0.00637	0.03607
RE39-17-139815	39-61597	0.0-1.0	Soil	—	—	0.00644	—	0.00644
RE39-17-139816	39-61598	0.0-1.0	Soil	—	—	0.00246 (J)	—	0.00246
RE39-17-139818	39-61600	0.0-1.0	Soil	—	—	0.00148 (J)	0.0014 (J)	0.00288
RE39-17-139819	39-61601	0.0-1.0	Soil	—	—	0.00389	—	0.00389
RE39-17-139821	39-61603	0.0-1.0	Soil	—	—	0.00828	0.00308 (J)	0.01136
RE39-17-139822	39-61604	0.0-1.0	Soil	—	0.0765	0.142	0.0427	0.2612
RE39-17-139823	39-61605	0.0-1.0	Soil	—	—	0.00244 (J)	—	0.00244
RE39-17-139824	39-61606	0.0-1.0	Soil	—	0.273	0.269	0.0842	0.6262
RE39-17-139825	39-61607	0.0-1.0	Soil	—	—	0.00556	0.00214 (J)	0.0077
RE39-17-139827	39-61609	0.0-1.0	Soil	—	—	0.00174 (J)	—	0.00174
RE39-17-139829	39-61611	0.0-1.0	Soil	—	—	0.00449	0.00168 (J)	0.00617
RE39-17-139831	39-61613	0.0-1.0	Soil	—	—	0.00857	0.00349 (J)	0.01206
RE39-17-139832	39-61614	0.0-1.0	Soil	—	—	0.102	0.0283	0.1303
RE39-17-139833	39-61615	0.0-1.0	Soil	—	—	0.048	0.0156	0.0636
RE39-17-139834	39-61616	0.0-1.0	Soil	0.009	—	—	—	0.009
RE39-17-139835	39-61617	0.0-1.0	Soil	—	—	0.0197	0.00648	0.02618
RE39-17-139836	39-61618	0.0-1.0	Soil	—	—	0.0313	0.0105	0.0418
RE39-17-139837	39-61619	0.0-1.0	Soil	—	—	0.0427	0.0135	0.0562

Table 5.3-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Residential SSL[a]				**2.43**	**2.43**	**1.14**	**2.43**	**1.0**[b]
RE39-17-139838	39-61620	0.0-1.0	Soil	—	—	0.00885	0.0022 (J)	0.01105
RE39-17-139840	39-61622	0.0-1.0	Soil	0.00591 (J)	—	—	—	0.00591
RE39-17-139841	39-61623	0.0-1.0	Soil	—	—	0.0116	—	0.0116
RE39-17-139842	39-61624	0.0-1.0	Soil	—	—	0.00404	—	0.00404
RE39-17-139843	39-61625	0.0-1.0	Soil	—	—	0.373	0.0866	0.4596
RE39-17-139844	39-61626	0.0-1.0	Soil	—	—	0.0337	0.00802	0.04172
RE39-17-139847	39-61629	0.0-1.0	Soil	—	—	0.0121	0.00341 (J)	0.01551
RE39-17-139848	39-61630	0.0-1.0	Soil	—	—	0.0259	0.00844	0.03434
RE39-17-139849	39-61631	0.0-1.0	Soil	0.00914	—	—	—	0.00914
RE39-17-143184	39-61651	0.0-1.0	Soil	—	—	0.00348	0.00133 (J)	0.00481
Confirmation Samples[d]								
RE39-17-139850	39-61632	1.0-2.0	Soil	—	—	0.00264 (J)	—	0.00264
RE39-17-139851	39-61633	1.0-2.0	Soil	—	—	0.00329 (J)	—	0.00329
RE39-17-139852	39-61634	1.0-2.0	Soil	—	—	0.15	—	0.15
RE39-17-139853	39-61635	1.0-2.0	Soil	—	—	—	0.00206 (J)	0.00206
RE39-17-139855	39-61637	1.0-2.0	Soil	—	—	0.00132 (J)	—	0.00132

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

[a] SSLs are from NMED (2017, 602273). If chemical has both carcinogenic and noncarcinogenic SSLs, the lower of the two is presented.

[b] Default cleanup level from 2005 Consent Order.

[c] — = Not detected.

[d] Confirmation samples collected at bottom of excavation.

Table 5.3-3
SVOCs Detected in 2017 Samples from the Former Waste Stockpile Area at SWMU 39-001(b)

Sample ID	Location ID	Depth (ft)	Media	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Bis(2-ethylhexyl)phthalate	Chrysene	Di-n-octylphthalate	Dibenz(a,h)anthracene	Dibenzofuran	Diethylphthalate
Residential SSL[a]				**3480**	**1740[b]**	**17,400**	**1.53**	**1.12**	**1.53**	**1740[b]**	**15.3**	**250,000[c]**	**380**	**153**	**630[c]**	**0.153**	**73[c]**	**49,300**
Extent Samples																		
RE39-17-139769	39-61551	0.0-1.0	Soil	—[d]	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RE39-17-139770	39-61552	0.0-1.0	Soil	—	—	—	—	—	—	—	—	0.396	0.0831	—	—	—	—	—
RE39-17-139771	39-61553	0.0-1.0	Soil	—	—	—	—	—	—	—	—	—	0.05 (J)	—	—	—	—	—
RE39-17-139772	39-61554	0.0-1.0	Soil	—	—	—	—	—	—	—	—	—	0.0681	—	—	—	—	—
RE39-17-139773	39-61555	0.0-1.0	Soil	—	—	—	0.0291 (J)	—	—	—	—	—	—	0.0281 (J)	—	—	—	—
RE39-17-139775	39-61557	0.0-1.0	Soil	0.177	—	0.276	0.52	0.587	0.672	0.438	0.292	—	0.056 (J)	0.515	—	—	0.107	—
RE39-17-139776	39-61558	0.0-1.0	Soil	—	—	—	—	—	—	—	—	0.344	0.0556 (J)	—	—	—	—	—
RE39-17-139778	39-61560	0.0-1.0	Soil	—	—	—	0.0481 (J)	0.057 (J)	0.0668	0.0474 (J)	—	—	—	0.0494 (J)	—	—	—	—
RE39-17-139782	39-61564	0.0-1.0	Soil	—	—	—	—	—	—	—	—	0.341	—	—	—	—	—	—
RE39-17-139783	39-61565	0.0-1.0	Soil	—	—	—	—	—	—	—	—	0.344	—	—	—	—	—	—
RE39-17-139787	39-61569	0.0-1.0	Soil	0.0738	—	0.164	0.411	0.405	0.479	0.331	0.203	—	0.0545 (J)	0.443	—	—	0.0415 (J)	—
RE39-17-139788	39-61570	0.0-1.0	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RE39-17-139790	39-61572	0.0-1.0	Soil	0.696	0.178 (J)	1.65	3.26	2.92	3.63	2.4	1.43	—	0.57	3.25	1.5	—	0.491	—
RE39-17-139791	39-61573	0.0-1.0	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RE39-17-139792	39-61574	0.0-1.0	Soil	—	—	—	—	—	—	—	—	0.357	—	—	—	—	—	—
RE39-17-139793	39-61575	0.0-1.0	Soil	0.024 (J)	—	0.0591 (J)	0.149	0.133	0.167	0.111	0.0692	—	—	0.153	—	—	—	—
RE39-17-139794	39-61576	0.0-1.0	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RE39-17-139795	39-61577	0.0-1.0	Soil	—	—	—	0.0547 (J)	0.0517 (J)	0.0646 (J)	0.0435 (J)	—	—	—	0.0557 (J)	—	—	—	—
RE39-17-139796	39-61578	0.0-1.0	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RE39-17-139802	39-61584	0.0-1.0	Soil	0.721	—	0.0123 (J)	0.0516	0.0563	0.0642	0.0422	0.0242 (J)	—	—	0.0595	—	—	—	—
RE39-17-139803	39-61585	0.0-1.0	Soil	0.0376	—	0.0639	0.189	0.205	0.228	0.161	0.107	—	—	0.217	—	0.0383	—	—
RE39-17-139807	39-61589	0.0-1.0	Soil	—	—	—	0.03 (J)	0.0279 (J)	0.0272 (J)	0.0198 (J)	—	—	—	0.0297 (J)	—	—	—	—
RE39-17-139810	39-61592	0.0-1.0	Soil	0.0213 (J)	—	0.0426	0.125	0.134	0.158	0.0972	0.0642	—	—	0.146	—	0.0172 (J)	—	—
RE39-17-139811	39-61593	0.0-1.0	Soil	0.023 (J)	—	0.0389	0.137	0.153	0.166	0.104	0.0882	—	—	0.16	—	0.0271 (J)	—	—
RE39-17-139812	39-61594	0.0-1.0	Soil	0.128	—	0.186	0.615	0.598	0.725	0.297	0.299	—	—	0.713	—	0.0883	—	—
RE39-17-139814	39-61596	0.0-1.0	Soil	0.0564	—	0.0454	0.158	0.159	0.201	0.106	0.0728	—	0.139 (J)	0.177	—	0.0172 (J)	—	—
RE39-17-139815	39-61597	0.0-1.0	Soil	—	—	—	0.0144 (J)	0.0144 (J)	—	—	—	—	—	0.0141 (J)	—	—	—	—
RE39-17-139818	39-61600	0.0-1.0	Soil	—	—	—	0.0163 (J)	—	0.0204 (J)	0.0113 (J)	—	—	—	0.0174 (J)	—	—	—	—
RE39-17-139819	39-61601	0.0-1.0	Soil	—	—	—	0.0183 (J)	—	0.028 (J)	—	—	—	—	0.0201 (J)	—	—	—	—
RE39-17-139821	39-61603	0.0-1.0	Soil	—	—	—	0.0151 (J)	0.0154 (J)	0.0147 (J)	0.0117 (J)	—	—	—	0.0187 (J)	—	—	—	—

Table 5.3-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Bis(2-ethylhexyl)phthalate	Chrysene	Di-n-octylphthalate	Dibenz(a,h)anthracene	Dibenzofuran	Diethylphthalate
Residential SSL[a]				**3480**	**1740[b]**	**17,400**	**1.53**	**1.12**	**1.53**	**1740[b]**	**15.3**	**250,000[c]**	**380**	**153**	**630[c]**	**0.153**	**73[c]**	**49,300**
RE39-17-139822	39-61604	0.0-1.0	Soil	0.0159 (J)	—	0.0246 (J)	0.0854	0.0937	0.112	0.0785	0.0463	—	—	0.108	—	0.0188 (J)	—	—
RE39-17-139823	39-61605	0.0-1.0	Soil	—	—	—	0.025 (J)	0.0201 (J)	0.0268 (J)	0.0142 (J)	0.0127 (J)	—	—	0.0179 (J)	—	—	—	—
RE39-17-139824	39-61606	0.0-1.0	Soil	0.13	—	0.302	0.65	0.654	0.761	0.555	0.322	—	—	0.705	—	0.147	—	—
RE39-17-139827	39-61609	0.0-1.0	Soil	—	—	0.0151 (J)	0.0309 (J)	0.0287 (J)	0.0306 (J)	0.0234 (J)	0.0158 (J)	—	—	0.0328 (J)	—	—	—	—
RE39-17-139829	39-61611	0.0-1.0	Soil	—	—	—	0.0159 (J)	—	—	—	—	—	—	0.0119 (J)	—	—	—	—
RE39-17-139831	39-61613	0.0-1.0	Soil	—	—	—	0.0174 (J)	0.012 (J)	—	0.0131 (J)	—	—	—	0.0138 (J)	—	—	—	—
RE39-17-139832	39-61614	0.0-1.0	Soil	0.0135 (J)	—	0.0251 (J)	0.091	0.111	0.122	0.088	0.0538	—	—	0.108	—	0.0266 (J)	—	—
RE39-17-139833	39-61615	0.0-1.0	Soil	0.0357 (J)	—	0.0637	0.14	0.138	0.156	0.119	0.0644	—	—	0.146	—	0.032 (J)	—	—
RE39-17-139834	39-61616	0.0-1.0	Soil	0.0244 (J)	—	0.0584 (J)	0.149	0.138	0.176	0.115	0.0672	—	0.0507 (J)	0.154	—	—	—	0.0308 (J)
RE39-17-139835	39-61617	0.0-1.0	Soil	—	—	0.0129 (J)	0.0474	0.0482	0.0629	0.0459	0.0239 (J)	—	—	0.0493	—	—	—	—
RE39-17-139836	39-61618	0.0-1.0	Soil	—	—	0.0135 (J)	0.0404	0.0415	0.0511	0.04	0.0208 (J)	—	—	0.0485	—	—	—	—
RE39-17-139837	39-61619	0.0-1.0	Soil	0.0271 (J)	—	0.0466	0.122	0.144	0.158	0.104	0.0718	—	—	0.133	—	0.0248 (J)	—	—
RE39-17-139838	39-61620	0.0-1.0	Soil	0.0233 (J)	—	0.0402	0.088	0.0896	0.123	0.0593	0.0498	—	—	0.105	—	0.0379 (J)	—	—
RE39-17-139840	39-61622	0.0-1.0	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RE39-17-139841	39-61623	0.0-1.0	Soil	—	—	—	—	—	0.0165 (J)	—	—	—	—	—	—	—	—	—
RE39-17-139842	39-61624	0.0-1.0	Soil	—	—	—	0.0213 (J)	—	—	—	—	—	—	0.0177 (J)	—	—	—	—
RE39-17-139843	39-61625	0.0-1.0	Soil	0.12	—	0.182	0.551	0.632	0.837	0.317	0.315	—	—	0.621	—	—	—	—
RE39-17-139844	39-61626	0.0-1.0	Soil	—	—	0.0274 (J)	0.105	0.134	0.183	0.0857	0.0552	—	—	0.139	—	—	—	—
RE39-17-139847	39-61629	0.0-1.0	Soil	—	—	—	0.0277 (J)	0.0292 (J)	0.0451	0.0159 (J)	0.0136 (J)	—	0.489	0.0235 (J)	—	—	—	—
RE39-17-139848	39-61630	0.0-1.0	Soil	—	—	—	0.0369 (J)	0.0376 (J)	0.0624	—	0.03 (J)	—	—	0.0388	—	—	—	—
RE39-17-139849	39-61631	0.0-1.0	Soil	—	—	—	—	—	—	—	—	—	0.0498 (J)	—	—	—	—	—
Confirmation Samples[e]																		
RE39-17-139850	39-61632	1.0-2.0	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RE39-17-139851	39-61633	1.0-2.0	Soil	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
RE39-17-139852	39-61634	1.0-2.0	Soil	—	—	—	0.023 (J)	0.0179 (J)	0.0213 (J)	0.0124 (J)	—	—	—	0.0193 (J)	—	—	—	—
RE39-17-143182	39-61649	1.0-2.0	Soil	—	—	—	0.0117 (J)	—	0.0131 (J)	—	—	0.537 (J)	—	—	—	—	—	—

Table 5.3-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Methylnaphthalene[1-]	Methylnaphthalene[2-]	Naphthalene	Pentachlorophenol	Phenanthrene	Pyrene
Residential SSL[a]				**2320**	**2320**	**1.53**	**172**	**232**	**1160**	**9.85**	**1740**	**1740**
Extent Samples												
RE39-17-139769	39-61551	0.0-1.0	Soil	—	—	—	—	—	—	—	0.0246 (J)	—
RE39-17-139770	39-61552	0.0-1.0	Soil	—	—	—	—	—	—	—	0.0419 (J)	—
RE39-17-139771	39-61553	0.0-1.0	Soil	—	—	—	—	—	—	—	0.03 (J)	—
RE39-17-139772	39-61554	0.0-1.0	Soil	—	—	—	—	—	—	—	0.0311 (J)	—
RE39-17-139773	39-61555	0.0-1.0	Soil	0.0696	—	—	—	—	—	—	0.0634 (J)	0.0611 (J)
RE39-17-139775	39-61557	0.0-1.0	Soil	1.24	0.177	0.359	0.0344 (J)	0.0462 (J)	0.127	—	1.2	1.09
RE39-17-139776	39-61558	0.0-1.0	Soil	—	—	—	—	—	—	—	0.0285 (J)	—
RE39-17-139778	39-61560	0.0-1.0	Soil	0.128	—	—	—	—	—	—	0.112	0.112
RE39-17-139782	39-61564	0.0-1.0	Soil	—	—	—	—	—	—	—	—	—
RE39-17-139783	39-61565	0.0-1.0	Soil	—	—	—	—	—	—	—	—	—
RE39-17-139787	39-61569	0.0-1.0	Soil	1.01	0.0755	0.264	—	—	—	—	0.761	0.873
RE39-17-139788	39-61570	0.0-1.0	Soil	0.0376 (J)	—	—	—	—	—	—	0.0319 (J)	0.0316 (J)
RE39-17-139790	39-61572	0.0-1.0	Soil	8.06	0.853	2.05	0.146 (J)	0.168 (J)	0.601	—	7.03	6.88
RE39-17-139792	39-61574	0.0-1.0	Soil	—	—	—	—	—	—	—	—	—
RE39-17-139793	39-61575	0.0-1.0	Soil	0.379	0.0279 (J)	0.0935	—	—	—	—	0.273	0.319
RE39-17-139794	39-61576	0.0-1.0	Soil	0.0313 (J)	—	—	—	—	—	—	—	0.0287 (J)
RE39-17-139795	39-61577	0.0-1.0	Soil	0.135	—	—	—	—	—	—	0.0972	0.115
RE39-17-139796	39-61578	0.0-1.0	Soil	0.0612 (J)	—	—	—	—	—	—	0.046 (J)	0.0529 (J)
RE39-17-139802	39-61584	0.0-1.0	Soil	0.128	—	0.0144 (J)	NA[f]	—	—	—	0.079	0.126
RE39-17-139803	39-61585	0.0-1.0	Soil	0.478	0.0369	0.134	NA	—	0.0193 (J)	—	0.374	0.511
RE39-17-139807	39-61589	0.0-1.0	Soil	0.0583	—	0.0205 (J)	NA	—	—	—	0.0445	0.0682
RE39-17-139810	39-61592	0.0-1.0	Soil	0.375	0.0209 (J)	0.112	NA	—	0.0114 (J)	—	0.256	0.278
RE39-17-139811	39-61593	0.0-1.0	Soil	0.331	0.0222 (J)	0.086	NA	—	—	—	0.246	0.335
RE39-17-139812	39-61594	0.0-1.0	Soil	1.28	0.114	0.336	NA	0.0214 (J)	0.0761	—	1.15	1.33
RE39-17-139814	39-61596	0.0-1.0	Soil	0.41	0.0332 (J)	0.101	NA	—	0.0183 (J)	—	0.338	0.371
RE39-17-139815	39-61597	0.0-1.0	Soil	0.0236 (J)	—	—	NA	—	—	—	0.0166 (J)	0.025 (J)
RE39-17-139818	39-61600	0.0-1.0	Soil	0.0272 (J)	—	—	NA	—	—	—	0.0151 (J)	0.0333 (J)
RE39-17-139819	39-61601	0.0-1.0	Soil	0.038	—	—	NA	—	—	—	0.0257 (J)	0.0451
RE39-17-139821	39-61603	0.0-1.0	Soil	0.036 (J)	—	0.0128 (J)	NA	—	—	—	0.0301 (J)	0.0374
RE39-17-139822	39-61604	0.0-1.0	Soil	0.181	0.013 (J)	0.0742	NA	—	—	—	0.158	0.229
RE39-17-139823	39-61605	0.0-1.0	Soil	0.0451	—	0.0156 (J)	NA	—	—	—	0.0268 (J)	0.0469
RE39-17-139824	39-61606	0.0-1.0	Soil	1.5	0.16	0.563	NA	0.025 (J)	—	—	1.55	1.71

Table 5.3-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Methylnaphthalene[1-]	Methylnaphthalene[2-]	Naphthalene	Pentachlorophenol	Phenanthrene	Pyrene
Residential SSL[a]				**2320**	**2320**	**1.53**	**172**	**232**	**1160**	**9.85**	**1740**	**1740**
RE39-17-139827	39-61609	0.0-1.0	Soil	0.0611	—	0.0272 (J)	NA	—	—	—	0.0649	0.0732
RE39-17-139829	39-61611	0.0-1.0	Soil	0.0228 (J)	—	—	NA	—	—	—	0.0166 (J)	0.0238 (J)
RE39-17-139831	39-61613	0.0-1.0	Soil	0.0276 (J)	—	0.0141 (J)	NA	—	—	—	0.016 (J)	0.0305 (J)
RE39-17-139832	39-61614	0.0-1.0	Soil	0.209	0.0109 (J)	0.104	NA	—	—	—	0.154	0.227
RE39-17-139833	39-61615	0.0-1.0	Soil	0.291	0.0398	0.126	NA	—	—	—	0.33	0.346
RE39-17-139834	39-61616	0.0-1.0	Soil	0.418	0.026 (J)	0.0981	—	—	—	—	0.308	0.353
RE39-17-139835	39-61617	0.0-1.0	Soil	0.105	—	0.0421	NA	—	—	—	0.0762	0.125
RE39-17-139836	39-61618	0.0-1.0	Soil	0.0846	—	0.0308 (J)	NA	—	—	—	0.0734	0.104
RE39-17-139837	39-61619	0.0-1.0	Soil	0.296	0.0306 (J)	0.111	NA	—	—	—	0.285	0.319
RE39-17-139838	39-61620	0.0-1.0	Soil	0.26	0.0237 (J)	0.0589	NA	—	—	—	0.226	0.193
RE39-17-139840	39-61622	0.0-1.0	Soil	0.0373 (J)	—	—	-	—	—	—	0.0247 (J)	0.0323 (J)
RE39-17-139841	39-61623	0.0-1.0	Soil	0.0189 (J)	—	—	NA	—	—	—	0.0131 (J)	0.0177 (J)
RE39-17-139842	39-61624	0.0-1.0	Soil	0.0341 (J)	—	—	NA	—	—	—	0.0257 (J)	0.0381 (J)
RE39-17-139843	39-61625	0.0-1.0	Soil	1.33	0.106	0.327	NA	0.0228 (J)	—	—	1.15	1.8
RE39-17-139844	39-61626	0.0-1.0	Soil	0.23	0.012 (J)	0.0837	NA	—	—	—	0.171	0.286
RE39-17-139847	39-61629	0.0-1.0	Soil	0.0583	—	0.0159 (J)	NA	—	—	—	0.033 (J)	0.0659
RE39-17-139848	39-61630	0.0-1.0	Soil	0.0669	—	0.0278 (J)	NA	—	—	—	0.0494	0.097
RE39-17-139849	39-61631	0.0-1.0	Soil	—	—	—	—	—	—	—	—	—
Confirmation Samples[e]												
RE39-17-139850	39-61632	1.0-2.0	Soil	0.0122 (J)	—	—	NA	—	—	—	—	—
RE39-17-139851	39-61633	1.0-2.0	Soil	—	—	—	NA	—	—	—	—	—
RE39-17-139852	39-61634	1.0-2.0	Soil	0.0547	—	0.0124 (J)	NA	—	—	—	0.0385	0.0481
RE39-17-143182	39-61649	1.0-2.0	Soil	0.0237 (J)	—	—	NA	—	—	0.221 (J)	0.0156 (J)	0.0226 (J)

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

[a] SSLs are from NMED (2017, 602273). If chemical has both carcinogenic and noncarcinogenic SSLs, the lower of the two is presented.

[b] Pyrene used as surrogate based on structural similarity.

[c] SSLs from EPA regional screening tables (https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-june-2017).

[d] — = Not detected.

[e] Confirmation samples collected at bottom of excavation.

[f] NA = Sample not analyzed for this constituent.

Table 5.4-1
Summary of 2017 Samples Collected and Analyses Requested for SWMU 39-007(a)

Sample ID	Location ID	Phase II Map ID	Depth (ft)	Media	PCBs
Extent Samples					
RE39-17-139856	39-61638	7a-1	0.0–1.0	Soil	2017-2082[a]
RE39-17-139862	39-61638	7a-1	2.0–3.0	Soil	2017-2082
RE39-17-139868	39-61638	7a-1	4.0–5.0	Soil	2017-2084
RE39-17-139857	39-61639	7a-2	0.0–1.0	Soil	2017-2082
RE39-17-139863	39-61639	7a-2	2.0–3.0	Soil	2017-2082
RE39-17-139869	39-61639	7a-2	4.0–5.0	Soil	2017-2084
RE39-17-139858	39-61640	7a-3	0.0–1.0	Soil	2017-2082
RE39-17-139864	39-61640	7a-3	2.0–3.0	Soil	2017-2082
RE39-17-139870	39-61640	7a-3	4.0–5.0	Soil	2017-2084
RE39-17-139859	39-61641	7a-4	0.0–1.0	Soil	2017-2082
RE39-17-139865	39-61641	7a-4	2.0–3.0	Soil	2017-2082
RE39-17-139871	39-61641	7a-4	4.0–5.0	Soil	2017-2084
RE39-17-139860	39-61642	7a-5	0.0–1.0	Soil	2017-2082
RE39-17-139866	39-61642	7a-5	2.0–3.0	Soil	2017-2082
RE39-17-139872	39-61642	7a-5	4.0–5.0	Soil	2017-2084
RE39-17-139861	39-61643	7a-6	0.0–1.0	Soil	2017-2082
RE39-17-139867	39-61643	7a-6	2.0–3.0	Soil	2017-2082
RE39-17-139873	39-61643	7a-6	4.0–5.0	Soil	2017-2084
Confirmation Samples[b]					
RE39-17-139911	39-10019	NA	0.0–1.0	Soil	2017-2413
RE39-17-139912	39-10019	NA	2.0–3.0	Soil	2017-2413
RE39-17-139913	39-604854	NA	0.0–1.0	Soil	2017-2413
RE39-17-139914	39-604854	NA	2.0–3.0	Soil	2017-2413

[a] Analytical request number.

[b] Confirmation samples collected at bottom of excavation.

Table 5.4-2
PCBs Detected in 2017 Samples at SWMU 39-007(a)

Sample ID	Location ID	Media	Depth (ft)	Aroclor-1248	Aroclor-1260	Total PCBs
Residential SSL[a]				**2.43**	**2.43**	**1.0[b]**
Extent Samples						
RE39-17-139856	39-61638	Soil	0.0–1.0	—[c]	0.0286	0.0286
RE39-17-139857	39-61639	Soil	0.0–1.0	—	0.00829	0.00829
RE39-17-139858	39-61640	Soil	0.0–1.0	0.0491	—	0.0491
RE39-17-139859	39-61641	Soil	0.0–1.0	—	0.0102	0.0102
RE39-17-139861	39-61643	Soil	0.0–1.0	—	0.00923	0.00923
Confirmation Samples[d]						
RE39-17-139856	39-10019	Soil	2.0–3.0	—	0.0015 (J-)	0.0015
RE39-17-139857	39-604858	Soil	0.0–1.0	—	0.00836	0.00836

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

[a] SSLs are from NMED (2017, 602273). If chemical has both carcinogenic and noncarcinogenic SSLs, the lower of the two is presented.

[b] Default cleanup level from 2005 Consent Order.

[c] — = Not detected.

[d] Confirmation samples collected at bottom of excavation.

Appendix A

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

A-1.0 ACRONYMS AND ABBREVIATIONS

ACA	accelerated corrective action
AK	acceptable knowledge
AOC	area of concern
bgs	below ground surface
BV	background value
CCV	continuing calibration verification
CFR	Code of Federal Regulations
COPC	chemical of potential concern
DL	detection limit
DOE	Department of Energy (U.S.)
EP	Environmental Programs Directorate
EPA	Environmental Protection Agency (U.S.)
EQL	estimated quantitation limit
ER	Environmental Restoration (Project)
FTB	field trip blank
GIS	geographic information system
GNSS	global navigation satellite system
GPR	ground-penetrating radar
GPS	global-positioning system
GRO	gasoline range organic
HE	high explosives
HIR	historical investigation report
ICB	initial calibration blank
ICS	interference check samples
ICV	initial calibration verification
IDL	instrument detection limit
IDW	investigation-derived waste
IS	internal standard
IWP	investigation work plan
LAL	lower acceptance limit
LANL	Los Alamos National Laboratory
LCS	laboratory control sample
MCL	maximum contaminant level

MDC	minimum detected concentration
MDL	method detection limit
MI	multi-increment
MS	matrix spike
MSW	municipal solid waste
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMSW	New Mexico special waste
NPDES	National Pollutant Discharge Elimination System
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PCS	petroleum-contaminated soil
PID	photoionization detector
PPE	personal protective equipment
QA/QC	quality assurance/quality control
QP	quality procedure
RCRA	Resource Conservation and Recovery Act
RCT	radiological control technician
RER	relative error ratio
RL	reporting limit
RPD	relative percent difference
SAA	satellite accumulation area
SAL	screening action level
SCL	sample collection log
SDS	safety data sheets
SMO	Sample Management Office
SOP	standard operating procedure
SSL	soil screening level
SVOC	semivolatile organic compound
SWMU	solid waste management unit
TA	technical area
TAL	target analyte list
TPH	total petroleum hydrocarbons
TPU	total propagated uncertainty

TSCA	Toxic Substances Control Act
UAL	upper acceptance limit
UCL	upper confidence limit
UMAP	Utilities and Infrastructure Map Service
UTL	upper tolerance limit
VOC	volatile organic compound
WAC	Waste Acceptance Criteria
WCSF	waste characterization strategy form
WEF	waste exception form
WPF	waste profile form
XRF	x-ray fluorescence

A-2.0 METRIC CONVERSION TABLE

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

A-3.0 DATA QUALIFIER DEFINITIONS

Data Qualifier	Definition
U	The analyte was analyzed for but not detected.
J	The analyte was positively identified, and the associated numerical value is estimated to be more uncertain than would normally be expected for that analysis.
J+	The analyte was positively identified, and the result is likely to be biased high.
J-	The analyte was positively identified, and the result is likely to be biased low.
UJ	The analyte was not positively identified in the sample, and the associated value is an estimate of the sample-specific detection or quantitation limit.
NQ	The analyte was positively identified, and the associated numerical value is not qualified.
R	The data are rejected as a result of major problems with quality assurance/quality control (QA/QC) parameters.
D	Reported value is from a dilution.
N*	Spiked sample recovery and duplicate analysis not within control limits.

Appendix B

Field Methods

B-1.0 INTRODUCTION

This appendix summarizes field methods used during the 2017 accelerated corrective action (ACA) conducted at the former waste stockpile areas at Solid Waste Management Units (SWMUs) 39-001(a) and 39-001(b), former capacitor staging areas at SWMU 39-001(a), and the former storage area at SWMU 39-007(a) at Technical Area 39 (TA-39) in the North Ancho Canyon Aggregate Area at Los Alamos National Laboratory (LANL or the Laboratory). Table B-1.0-1 provides a general summary of methods used, and the following sections provide more detailed description of the field methods. All activities were conducted in accordance with the applicable Associate Directorate for Environmental Management standard operating procedures (SOPs) and quality procedures (QPs), which are listed in Table B-1.0-2 and are available at http://www.lanl.gov/environment/plans-procedures.php.

B-2.0 FIELD-SCREENING METHODS

This section summarizes the field-screening methods used during the investigation and remediation activities. Because sampling was primarily conducted to finalize extent based on previous investigations and confirm cleanup levels were met, field screening was primarily conducted for health and safety purposes. The Laboratory's proposed field-screening approach was to (1) visually examine all samples for evidence of contamination, and (2) screen for radioactivity. Based on 2009 investigation results, volatile organic compound (VOC) contamination was not expected to be encountered; therefore field screening for organic vapors was not performed.

B-2.1 Field Screening for Radioactivity

Radiological field screening was conducted for radiological activity level purposes by Laboratory radiological control technicians (RCTs). Radiological screening targeted gross-alpha and beta-gamma activity. Samples collected by hand method (hand auger) were radiologically screened in stainless steel collection bowls or the sample container when applicable for each collected sample. The samples were screened for gross-alpha and beta-gamma activity using an Eberline E-600 survey meter with an attached SHP-380 AB probe. All survey instrumentation were verified to be within calibration due dates. Performance and response checks of instrumentation were performed in accordance with LANL instrumentation procedures RP-1-DP-043.02, "Eberline E-600 with Various Detectors," and RP-1-DP-26, "Operational Checks of Alpha/Beta Dual Use Probes." Sample screening results were recorded on the appropriate LANL Radiological Survey Form. The survey form is the document of record.

No radiological screening results exceeded twice the daily site background levels. No changes to sampling or other activities occurred as a result of field-screening results. Screening results were recorded on the corresponding sample collection log (SCL)/chain-of-custody (COC) forms at the time of sample collection. The SCL/COCs are provided in Appendix D. Radiological screening results are provided in Table 4.3-1 in the main text of this report.

B-3.0 SURFACE AND SUBSURFACE SAMPLING

This section summarizes the methods used for collecting surface and subsurface samples, including soil, fill, and sediment samples.

B-3.1 Surface, Shallow-Subsurface and Subsurface Sampling Methods

Surface, shallow-subsurface, and subsurface soil and sediment samples were collected in accordance with ER-SOP-20069, “Soil, Tuff, and Sediment Sampling.” A stainless steel hand auger was used to collect material in approximately 6-in. to 1-ft increments. A stainless steel bowl and scoop were used to capture the sample from the hand auger, which was then transferred to sterile sample collection containers for transport to the Sample Management Office (SMO). The sample collection tools were decontaminated immediately before collection of each sample in accordance with EP-ERSS-SOP-5061, “Field Decontamination of Equipment.”

Samples were preserved using coolers to maintain the required temperature and by using chemical preservatives such as nitric acid, as required by ER-SOP-20235, “Sample Containers, Preservation, and Field Quality Control.”

Samples were appropriately labeled, sealed with custody seals, and documented before transporting to the SMO. Samples were managed according to ER-SOP-10094, “Handling, Packaging, and Transporting Field Samples,” and ER-SOP-10093, “Sample Control and Field Documentation.”

B-3.2 Quality Control Samples

Regular and quality assurance (QA)/quality control (QC) samples were collected in accordance with SOP-20235. Field duplicate samples were collected at a frequency of at least 1 per 10 samples (10%) or 1 per day. Field rinsate samples were also collected at a frequency of at least 1 per day for samples analyzed for inorganic chemicals. Field trip blanks were not collected because none of the investigation samples were analyzed for VOCs. QA/QC samples are used to monitor the validity of the sample handling and collection procedures.

Field duplicate samples were collected from the same material as a regular investigation sample and submitted for the same analyses. Field duplicate samples were collected at a frequency of at least 1 duplicate sample for every 10 samples.

Field rinsate blanks were collected to evaluate field decontamination procedures. Rinsate blanks were collected by rinsing sampling equipment with deionized water (i.e., auger buckets, sampling bowls and spoons) after it was decontaminated. The rinsate water was collected in a sample container and submitted to the SMO. Field rinsate blank samples were analyzed for inorganic chemicals and were collected from sampling equipment at a frequency of at least 1 rinsate sample per day when samples for inorganic chemicals were collected.

B-3.3 Sample Documentation and Handling

Field personnel completed an SCL/COC form for each sample. Sample containers were sealed with signed COC seals and placed in coolers at approximately 4°C. Samples were preserved as required, and handled and shipped in accordance with SOP-10094 and SOP-20235. Samples were transported to the SMO in sealed coolers containing ice packs, and shipped from the SMO to the analytical laboratory. The SMO personnel reviewed and approved the SCL/COC forms before taking custody of the sample.

B-3.4 Decontamination of Sampling Equipment

All sampling equipment was decontaminated immediately before each sample was collected to avoid external contamination and cross-contamination between samples. Decontamination included cleaning the equipment with Fantastik and clean paper towels, per SOP-5061. To evaluate decontamination activities, field rinsate samples were collected in accordance with SOP-20235.

B-3.5 Geodetic Surveying

Initial geodetic surveys of extent sampling locations and decision unit corners were performed by New Mexico State licensed surveyors using a TOPCON GR-3 GPS unit. Field personnel then used a Trimble GEO 7 series global navigation satellite system to stake out the predetermined sampling locations and excavation boundaries. This allowed field technicians to methodically collect samples within the decision units. Heavy equipment operators targeted the excavation within the surveyed decision units where excavation boundaries had been staked. This was done for the former waste stockpile areas at SWMUs 39-001(a) and 39-001(b), former capacitor staging areas at SWMU 39-001(a), and SWMU 39-007(a). Surveyed coordinates for all sampling locations were provided to the SMO for upload to the Sample Management Database. Surveyed coordinates of the former waste stockpile and capacitor staging areas, corresponding decision units, and SWMU boundaries are maintained in the Environmental Management geographic information system (GIS).

If a planned sampling location needed to be offset because of surface or subsurface obstructions, the relocated point was resurveyed. The surveyed coordinates are presented in Table 4.2-1 in the main text of this document.

B-4.0 EXCAVATION AND SITE RESTORATION

The approved Phase II investigation work plan (IWP) specified investigation and remediation activities at the former waste stockpile areas at SWMUs 39-001(a) and 39-001(b), former capacitor staging areas at SWMU 39-001(a), and SWMU 39-007(a) at TA-39 in the North Ancho Canyon Aggregate Area (LANL 2011, 201561); (NMED 2011, 203447). The Phase II work plan and New Mexico Environment Department (NMED) approval provided guidelines for soil remediation, including extending excavations and collecting additional confirmation samples, if required, to ensure cleanup levels were met.

B-4.1 Target Cleanup Levels

Elevated polychlorinated biphenyl (PCB) concentrations above 1.0 milligram per kilogram (mg/kg) drove remediation at these sites, as well as lead concentrations above the residential soil screening level (SSL) of 400 mg/kg, and uranium-238 activities above the residential screening action level (SAL) of 150 picocuries per gram (pCi/g) at the former waste stockpile area at SWMU 39-001(a), and semivolatile organic chemical (SVOC) concentrations above residential SSLs at the former waste stockpile area at SWMU 39-001(b).

B-4.2 Radiological Controls

Radiological field screening of confirmation and extent samples at all sites was conducted by Radiation Protection 1 RCTs.

The former waste stockpile areas at SWMU 39-001(b) and SWMU 39-007(a) are located in TA-39's posted radiation protection area. A LANL Radiation Work Permit was not issued for the investigation and remediation activities described in this ACA report; however, the requirements of 10 Code of Federal Regulations 835 were implemented through the LANL Radiation Protection Program and as specified in P121, "Radiation Protection" for work involving radiological hazards.

For excavations conducted within the former waste stockpile area at SWMUs 39-001(b) and SWMU 39-007(a), an RCT performed direct screening of alpha and beta contamination on the filled, open waste containers before supersack closure was approved. After sealing the container according to manufacturer's specifications, an RCT performed a direct screen for alpha and beta contamination, screened all sides of the closed bag for removable alpha and beta contamination, and performed a beta and gamma contamination dose rate survey and a neutron dose survey before releasing the supersack for transfer to a flatbed trailer for transport to the disposal facility.

For the former waste stockpile area at SWMU 39-001(a), which was not within TA-39's posted radiation area, an RCT performed screening on waste containers after the container had been sealed according to manufacturer's specifications. The RCT performed a direct screen for alpha and beta contamination, screened all sides of the closed bag for removable alpha and beta contamination, and performed a beta and gamma contamination dose rate survey and a neutron dose survey before releasing the supersack for transfer to a flatbed trailer for transport to the disposal facility.

B-4.3 Pre-Excavation Extent Sampling

Before the excavation of the decision units where PCBs were detected above the 1.0 mg/kg cleanup level at the former waste stockpile areas at SWMUs 39-001(a) and 39-001(b), step-out samples were collected from additional decision units adjacent to the outermost 2010 decision units to define the lateral extent of contaminated soil with greater than 1.0 mg/kg PCBs. Total PCBs were not detected above the 1.0 mg/kg cleanup level in any of the extent samples at these sites. Before the excavation of PCB-contaminated soil around sampling locations 39-10019 and 39-604854 at SWMU 39-007(a) where Aroclor-1254 and Aroclor-1260 concentrations were detected above 1.0 mg/kg in 2010, samples were collected from six step-out locations around the planned excavation area to confirm PCB concentrations did not exceed the 1.0 mg/kg PCB cleanup level. Total PCBs were not detected above the 1.0 mg/kg cleanup level in any of the extent samples at these sites.

B-4.4 Excavation

A track-mounted excavator was used to remove soils exceeding target cleanup levels, and the soil was managed as investigation-derived waste (IDW) in compliance with the approved waste characterization strategy form (WCSF) (see section B-5.0). Based on analytical results, additional excavation was conducted and confirmation samples were collected as required. Following remediation, the excavated areas were backfilled with clean fill, compacted, and revegetated as described below in section B-5.5. Dust suppression was conducted during excavation as necessary.

B-4.5 Site Demobilization and Restoration

The track-mounted excavator was used to transport clean topsoil to the excavated areas. It was compacted and contoured using the excavator. Clean topsoil was contoured and scarified at the former waste stockpile areas at SWMUs 39-001(a) and 39-001(b) and the areas reseeded with native grass mix. Following the dispersion of grass seed, the areas were hydro-mulched. Clean topsoil was compacted and

contoured and covered with base course at SWMU 39-007(a). Dust suppression was conducted during backfilling and reseeding activities as necessary.

The track-mounted excavator was demobilized from the site on November 1, 2017. Before equipment was removed from the site, a Laboratory RCT screened the equipment for radioactivity to ensure all materials were free of site contamination.

All temporary fencing and staging areas were dismantled and returned to pre-investigation conditions.

B-5.0 IDW STORAGE AND DISPOSAL

All IDW generated during investigation and remediation activities was managed in accordance with the project WCSF and EP-DIR-SOP-10021, "Characterization and Management of Environmental Program Waste." The procedure incorporates the requirements of all applicable U.S. Environmental Protection Agency (EPA) and NMED regulations, U.S. Department of Energy orders, and Laboratory implementation requirements. Details of IDW management for the ACA for North Ancho Canyon Aggregate Area are presented in Appendix E.

All excavated media resulting from the 2017 ACA investigation and remediation activities was collected and containerized at the point of generation in 9 yd^3 supersacks on pallets. A forklift was used to move the pallets with supersacks to the waste staging areas.

All waste containers were placed on plastic and covered with 6-mm thick plastic for additional protection from the elements. Low-level waste containers were shipped to Energy Solutions in Clive, Utah, in 38 shipments; industrial waste containers were shipped to Waste Management in Rio Rancho, New Mexico in 18 shipments; and Toxic Substances Control Act waste will be shipped to the Clean Harbors facility in Phoenix, Arizona, in 6 shipments.

B-6.0 DEVIATIONS

The following deviations from the approved Phase II IWP or proposed activities were made as a result of site conditions encountered during sampling activities.

B-6.1 Former Waste Stockpile and Capacitor Staging Areas at SWMU 39-001(a)

The following Phase II IWP locations were moved at SWMU 39-001(a) as a result of site conditions.

- Location 39-61432 (decision unit location 1a-8 in the Phase II IWP) was moved approximately to the west-southwest, out of the Ancho Canyon stream channel stream channel and onto the stream bank.
- Location 39-61433 (decision unit location 1a-9 in the Phase II IWP) was moved approximately 80 ft to the north-northeast and upstream of the site to define lateral extent. The original decision unit sampling location was in the stream channel.
- Location 39-61434 (decision unit location 1a-10 in the Phase II IWP) was relocated to a location in the stream channel directly east of extent sampling location 39-61437 (decision unit location 1a-45 in the Phase II IWP) to define lateral extent. The original decision unit sampling location was in the stream channel.

- Location 39-61458 (decision unit location 1a-11 in the Phase II IWP) was moved to the southeast to better represent the southern half of the excavated decision unit because the location proposed in the Phase II IWP was against Ancho Road.
- Location 39-61465 (decision unit location 1a-18 in the Phase II IWP) was moved to the south-southwest because the proposed location was in the stream channel.
- Location 39-61435 (decision unit location 1a-21 in the Phase II IWP) was relocated approximately 400 ft south of the site to a location in the stream channel to define lateral extent. The original decision unit sampling location was in the stream channel.
- Locations 39-61478 and 39-61479 (decision unit locations 1a-33 and 1a-34 in the Phase II IWP) were moved to the northeast because the proposed locations were against Ancho Road.

B-6.2 Former Capacitor Staging Areas at SWMU 39-001(a)

There were no deviations from the approved Phase II IWP at the former capacitor staging areas at SWMU 39-001(a).

B-6.3 Former Waste Stockpile Area at SWMU 39-001(b)

Several polycyclic aromatic hydrocarbons were detected above residential SSLs in the sample collected at location 39-61572. This sampling location receives runoff from Ancho Road, and because detected SVOC concentrations were higher in this sample than any of the other 22 extent samples collected at the former waste stockpile area at SWMU 39-001(b), it was suspected that a small piece of asphalt was included in the sampled media.

- A second surface sample was collected from a new sampling location (location 39-61651) approximately 5 ft east of sampling location 39-61572 to ensure asphalt from Ancho Road was not present in the sample. The new sample was submitted for laboratory analysis of PCBs and SVOCs.
- The western boundary of the decision unit with proposed confirmation sampling locations 1b-83 and 1b-84 from the Phase II IWP was moved to the east so as not to include Ancho Road. Corresponding sampling locations 39-61649 and 39-61650 were not moved.

B-6.4 SWMU 39-007(a), Former Storage Area

There were no deviations from the approved Phase II IWP at the former storage area at SWMU 39-007(a).

B-7.0 REFERENCES

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

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

LANL (Los Alamos National Laboratory), March 2011. "Phase II Investigation Work Plan for North Ancho Canyon Aggregate Area Revision 1," Los Alamos National Laboratory document LA-UR-11-1817, Los Alamos, New Mexico. (LANL 2011, 201561)

NMED (New Mexico Environment Department), May 13, 2011. "Approval with Modifications, Phase II Investigation Work Plan North Ancho Canyon Aggregate Area, Revision 1," New Mexico Environment Department letter to G.J. Rael (DOE-LASO) and M.J. Graham (LANL) from J.E. Kieling (NMED-HWB), Santa Fe, New Mexico. (NMED 2011, 203447)

Table B-1.0-1
Summary of Field Investigation Methods

Method	Summary
Hand-auger sampling	This method is typically used for sampling soil or sediment at depths of less than 10.0 to 15.0 ft, but in some cases may be used for collecting samples of weathered or nonwelded tuff. The method involves hand-turning a stainless steel bucket auger (typically 3.0 to 4.0 in. inside diameter [I.D.]), creating a vertical hole that can be advanced to the desired sampling depth. When the desired depth was reached, the auger was decontaminated before the hole was advanced through the sample depth. The sample material was transferred from the auger bucket to a stainless steel sampling bowl before the various required sample containers were filled.
Handling, packaging, and shipping of samples	Field team members sealed and labeled samples before packing to ensure the sample containers and the transport containers were free of external contamination. Field team members packaged all samples to minimize the possibility of breakage during transportation. After all environmental samples were collected, packaged, and preserved, a field team member transported them to the SMO. The SMO arranged for shipping the samples to analytical laboratories.
Sample control and field documentation	The collection, screening, and transport of samples were documented on standard forms generated by the SMO. These included SCLs, COC forms, and sample container labels. SCLs were completed at the time of sample collection and the logs were signed by the sampler and a reviewer who verified the logs for completeness and accuracy. Corresponding labels were initialed and applied to each sample container, and custody seals were placed around each sample container. COC forms were completed and signed to verify the samples had not been left unattended.
Field QC samples	Field duplicates: at a frequency of 10%, QC samples were collected at the same time as a regular sample and submitted for the same analyses. Equipment rinsate blank: at a frequency of one per day, QC samples were collected by rinsing sampling equipment with deionized water, which was collected in a sample container and submitted for laboratory analysis.
Field decontamination of sampling equipment	Dry decontamination was used to minimize the generation of liquid waste. Dry decontamination included the use of a wire brush or other tool to remove soil or other material adhering to the sampling equipment, followed by use of a commercial cleaning agent (nonacid, waxless cleaners) and paper towels.
Containers and preservation of samples	Specific requirements/processes for sample containers, preservation techniques, and holding times are based on EPA guidance for environmental sampling, preservation, and quality assurance. Specific requirements for each sample were printed in the SCLs provided by the SMO (size and type of container [e.g., glass, amber glass, and polyethylene]). All samples were preserved by being placed in insulated containers with ice to maintain a temperature of 4°C.
Coordinating and evaluating geodetic surveys	Geodetic surveys focused on obtaining survey data of acceptable quality for use during project investigations. All coordinates were expressed as State Plane Coordinate System 83, NM Central, U.S. feet coordinates. All elevation data were reported relative to the National Geodetic Vertical Datum of 1983.

Table B-1.0-1 (continued)

Method	Summary
Management of environmental restoration project waste, waste characterization	IDW is managed, characterized, and stored in accordance with an approved WCSF that documents site history, field activities, and the characterization approach for each waste stream managed. Waste characterization complied with on- or off-site waste acceptance criteria. All stored IDW was marked with appropriate signage and labels. Waste storage areas were established before waste was generated. Waste storage areas were located in controlled areas of the Laboratory to prevent unauthorized personnel from inadvertently adding or managing wastes. Each container of waste generated was individually labeled with the waste classification and item identification number, and as radioactive (if applicable), immediately following containerization. All waste was segregated by classification and compatibility to prevent cross-contamination. Management of IDW is discussed in Appendix E.

Table B-1.0-2
QPs and SOPs

P101-17, R2, Excavation/Fill/Soil Disturbance Permit Process
P101-18, R2, Procedure for Pause/Stop Work
P121, Radiation Protection
P315, R3, Conduct of Operations Manual
P409, R4, Waste Management
P202-6, R2, Escorting
EP-DIR-SOP-10021, Characterization and Management of Environmental Programs Waste
EP-ERSS-SOP-5028, Coordinating and Evaluating Geodetic Surveys
EP-ERSS-SOP-5061, Field Decontamination of Equipment
ER-SOP-20235, Sample Containers, Preservation and Field Quality Assurance
ER-SOP-10094, Handling, Packaging, and Transporting Field Samples
ER-SOP-10093, Sample Control and Field Documentation
ER-SOP-20069, Soil, Tuff and Sediment Sampling
RP-1-DP-043.02, Eberline E-600 with Various Detectors
RP-1-DP-26, Operational Checks of Alpha/Beta Dual Use Probes

Note: Procedures used were approved subcontractor procedures technically equivalent to the procedures listed, or LANL procedures were implemented directly where applicable.

Appendix C

Analytical Program

C-1.0 INTRODUCTION

This appendix discusses the analytical methods and data-quality review for samples collected during the accelerated corrective action (ACA) conducted in 2017 at sites in the North Ancho Canyon Aggregate Area at Los Alamos National Laboratory (LANL, or the Laboratory). Additionally, this appendix summarizes the effects of data-quality issues on the acceptability of the analytical data.

Quality assurance (QA), quality control (QC), and data validation procedures were implemented in accordance with the "Quality Assurance Project Plan Requirements for Sampling and Analysis" (LANL 1996, 054609); the Laboratory's 2008 statement of work (SOW) for analytical laboratories, Exhibit 'D' Scope of Work and Technical Specifications (LANL 2008, 109962); and the Laboratory's 2015 "Exhibit 'D' Scope of Work and Technical Specification for Off-Site Analytical Laboratory Services, Revision 4" (hereafter, the 2015 Exhibit D) (LANL 2015, 600520). The results of the QA/QC procedures were used to estimate the accuracy, bias, and precision of the analytical measurements. Samples for QC include method blanks, matrix spikes (MSs), laboratory control samples (LCSs), internal standards, initial calibration verifications (ICVs) and continuing calibration verifications (CCVs), surrogates, and tracers.

The type and frequency of laboratory QC analyses are described in the SOWs for analytical laboratories (LANL 2008, 109962; LANL 2015, 600520). Other QC factors, such as sample preservation and holding times, were also assessed in accordance with the requirements outlined in standard operating procedure (SOP) EP-ERSS-SOP-5056, "Sample Containers and Preservation."

The following SOPs, available at http://www.lanl.gov/environment/plans-procedures.php, were used for data validation:

- SOP-5162, Routine Validation of Semivolatile Organic Compound (SVOC) Analytical Data
- SOP-5163, Routine Validation of Organochlorine Pesticides (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data
- SOP-5165, Routine Validation of Metals Analytical Data
- SOP-5166, Routine Validation of Gamma Spectroscopy, Chemical Separation Alpha Spectrometry, Gas Proportional Counting, and Liquid Scintillation Analytical Data

Routine data validation was performed for each data package (also referred to as request numbers), and analytical data were reviewed and evaluated based on U.S. Environmental Protection Agency (EPA) National Functional Guidelines, where applicable (EPA 1994, 048639; EPA 1999, 066649). As a result of the data validation and assessment efforts, qualifiers are assigned to the analytical records as appropriate. The data-qualifier definitions are provided in Appendix A. Sample collection logs (SCLs) and chain of custody (COC) forms are provided in Appendix D (on DVD included with this document). The analytical data, instrument printouts, and data validation reports are provided in Appendix D.

C-2.0 ANALYTICAL DATA ORGANIZATION

Historical data evaluated in this report were collected during Resource Conservation and Recovery Act facility investigations, other corrective actions, and other investigations. All historical investigation samples were submitted to and analyzed by approved off-site laboratories. These data are determined to be of sufficient quality for decision-making purposes and have been reviewed and revalidated to current QA standards.

Data from excavated samples is not discussed in this appendix, but is presented in Appendix D.

C-3.0 INORGANIC CHEMICAL ANALYSES

A total of 89 samples (plus 8 field duplicates) were analyzed for target analyte list (TAL) metals (lead). The analytical methods used for inorganic chemicals are listed in Table C-1.0-1.

Tables in the ACA report summarize all samples collected and the analyses requested for the 2017 ACA conducted at sites in the North Ancho Canyon Aggregate Area. Only samples collected at the former waste stockpile area at SWMU 39-001(a) were analyzed for lead. All inorganic chemical results (lead) are provided in Appendix D.

C-3.1 Inorganic Chemical QA/QC Samples

The use of QA/QC samples is designed to produce measures of the reliability of the data. The results of the QA/QC analyses performed on a sample provide confidence about whether the analyte is present and whether the concentration reported is accurate. To assess the accuracy and precision of inorganic chemical analyses, LCSs, preparation blanks, MSs, laboratory duplicate samples, interference check samples (ICSs), internal standards (ISs), and serial dilution samples were analyzed as part of the investigation. Each of these QA/QC sample types is defined in the analytical services SOWs (LANL 2008, 109962; LANL 2015, 600520) and is described briefly below.

The LCS serves as a monitor of the overall performance of each step during the analysis, including sample digestion. For inorganic chemicals in soil or tuff, LCS percent recoveries should fall within the control limits of 75%–125% (LANL 2008, 109962; LANL 2015, 600520).

The preparation blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as those used in the environmental sample processing; it is extracted and analyzed in the same manner as the corresponding environmental samples. Preparation blanks are used to measure bias and potential cross-contamination. All inorganic chemical results should be below the method detection limit (MDL).

MS samples assess the accuracy of inorganic chemical analyses. These samples are designed to provide information about the effect of the sample matrix on the sample preparation procedures and analytical technique. The MS acceptance criterion is 75%–125%, inclusive, for all spiked analytes (LANL 2008, 109962; LANL 2015, 600520).

Laboratory duplicate samples assess the precision of inorganic chemical analyses. All relative percent differences between the sample and laboratory duplicate should be ±35% for soil (LANL 2008, 109962; LANL 2015, 600520).

The ICSs assess the accuracy of the analytical laboratory's inter-element and background correction factors used for inductively coupled plasma emission spectroscopy. The ICS percent recovery should be within the acceptance range of 80%–120%. The QC acceptance limits are ±20%.

ISs are chemical compounds added to every blank, sample, and standard extract at a known concentration. They are used to compensate for (1) analyte concentration changes that might occur during storage of the extract, and (2) quantitation variations that can occur during analysis. ISs are used as the basis for quantitation of target analytes. The percent recovery for ISs should be within the range of 60%–125%.

Serial dilution samples measure potential physical or chemical interferences and correspond to a sample dilution ratio of 1:5. The chemical concentration in the undiluted sample must be at least 50 times the MDL (100 times for inductively coupled plasma mass spectroscopy) for valid comparison. For sufficiently high concentrations, the relative percent difference (RPD) should be within 10%.

C-3.2 Data Quality Results for Inorganic Chemicals

C-3.2.1 Maintenance of COC

SCL/COC forms were maintained properly for all samples analyzed for inorganic chemicals (lead) (Appendix D).

C-3.2.2 Sample Documentation

All samples analyzed for inorganic chemicals (lead) were properly documented on SCL/COC forms in the field (Appendix D).

C-3.2.3 Sample Dilutions

Some samples were diluted for inorganic chemical analyses (lead). No qualifiers were applied to any inorganic chemical sample results because of dilutions.

C-3.2.4 Sample Preservation

Preservation criteria were met for all samples analyzed for inorganic chemicals (lead).

C-3.2.5 Holding Times

Holding time criteria were met for all samples analyzed for inorganic chemicals (lead).

C-3.2.6 Calibration Curves

Data were not qualified because of calibration curves.

C-3.2.7 ICVs and CCVs

Data were not qualified because of ICVs and/or CCVs.

C-3.2.8 Interference Check Sample and/or Serial Dilutions

Data were not qualified because of interference check samples or serial dilutions.

C-3.2.9 IS

Data were not qualified because of IS area counts.

C-3.2.10 Laboratory Duplicate Samples

Data were not qualified because of laboratory duplicate samples.

C-3.2.11 Blanks

One inorganic chemical result (lead) was qualified as estimated and biased low (J−) because the associated spike recovery was less than the lower acceptance limit (LAL) of 75% in the associated spike sample, but greater than 10%.

C-3.2.12 MS Samples

One inorganic chemical result (lead) was qualified as estimated and biased low (J−) because the associated MS recovery was less than the LAL but greater than 10%.

C-3.2.13 LCS Recoveries

Data were not qualified because of LCS recoveries.

C-3.2.14 Detection Limits

Data were not qualified because of detection limits.

C-3.2.15 Rejected Results

None of the lead results were qualified as rejected (R).

C-4.0 ORGANIC CHEMICAL ANALYSES

A total of 98 samples (plus 10 field duplicates) collected at the former waste stockpile area at SWMU 39-001(a), 68 samples (plus 9 field duplicates) collected at the former waste stockpile area at SWMU 39-001(b), 35 samples (plus 3 field duplicates) collected at the former capacitor staging areas at SWMU 39-001(a), and 22 samples (plus 3 field duplicates) collected at SWMU 39-007(a) were analyzed for polychlorinated biphenyls (PCBs). In addition, a total of 98 samples (plus 10 field duplicates) collected at the former waste stockpile area at SWMU 39-001(b) were analyzed for semivolatile organic chemicals (SVOCs). All QC procedures were followed as required by the analytical laboratory SOWs (LANL 2008, 109962; LANL 2015, 600520). The analytical methods used for organic chemicals are listed in Table C-1.0-1.

Tables in the ACA report summarize all samples collected and the analyses requested for the 2017 ACA conducted at sites in the North Ancho Canyon Aggregate Area. All organic chemical results are provided in Appendix D.

C-4.1 Organic Chemical QA/QC Samples

The use of QA/QC samples is designed to produce measures of the reliability of the data. The results of the QA/QC analyses performed on a sample provide confidence about whether the analyte is present and whether the concentration reported is accurate. Calibration verifications, LCSs, method blanks, MSs, surrogates, and ISs were analyzed to assess the accuracy and precision of organic chemical analyses. Each of these QA/QC sample types is defined in the analytical services SOWs (LANL 2008, 109962; LANL 2015, 600520) and described briefly below.

Calibration verification is the establishment of a quantitative relationship between the response of the analytical procedure and the concentration of the target analyte. There are two aspects of calibration verification: initial and continuing. The initial calibration verifies the accuracy of the calibration curve as well as the individual calibration standards used to perform the calibration. The continuing calibration ensures the initial calibration is still holding and correct as the instrument is used to process samples. The continuing calibration also serves to determine that analyte identification criteria such as retention times and spectral matching are being met.

The LCS is a sample of a known matrix that has been spiked with compounds that are representative of the target analytes, and it serves as a monitor of overall performance on a “controlled” sample. The LCS is the primary demonstration, on a daily basis, of the ability to analyze samples with good qualitative and quantitative accuracy. The LCS recoveries should be within the method-specific acceptance criteria.

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

MS samples are used to measure the ability to recover prescribed analytes from a native sample matrix and consist of aliquots of the submitted samples spiked with a known concentration of the target analyte(s). Spiking typically occurs before sample preparation and analysis. The spike sample recoveries should be between the LAL and upper acceptance limit (UAL).

A surrogate compound (surrogate) is an organic compound used in the analyses of target analytes that is similar in composition and behavior to the target analytes but is normally not found in environmental samples. Surrogates are added to every blank, sample, and spike to evaluate the efficiency with which analytes are recovered during extraction and analysis. The recovery percentage of the surrogates must be within specified ranges or the sample may be rejected or assigned a qualifier.

ISs are chemical compounds added to every blank, sample, and standard extract at a known concentration. They are used to compensate for (1) analyte concentration changes that might occur during storage of the extract, and (2) quantitation variations that can occur during analysis. ISs are used as the basis for quantitation of target analytes. The percent recovery for ISs should be within the range of 50%–200%.

C-4.2 Data Quality Results for Organic Chemicals

The majority of the analytical results are qualified as not detected (U) because the analytes were not detected by the respective analytical methods. These data do not have any quality issues associated with the values presented.

C-4.2.1 Maintenance of COC

SCL/COC forms were maintained properly for all samples analyzed for organic chemicals (Appendix D).

C-4.2.2 Sample Documentation

All samples analyzed for organic chemicals were properly documented on the SCL in the field (Appendix D).

C-4.2.3 Sample Dilutions

Some samples were diluted for organic chemical analyses. No qualifiers were applied to any organic chemical sample results because of dilutions.

C-4.2.4 Sample Preservation

Preservation criteria were met for all samples analyzed for organic chemicals.

C-4.2.5 Holding Times

Holding time criteria were met for all samples analyzed for organic chemicals (PCBs and SVOCs).

C-4.2.6 ICVs and CCVs

Data were not qualified because of ICVs and/or CCVs.

C-4.2.7 Surrogate Recoveries

A total of six PCB results were qualified as estimated not detected (UJ) because the surrogate percent recovery is below the LAL but was greater than or equal to 10%.

One PCB result was qualified as estimated not detected (J-) because the surrogate percent recovery is below the LAL but was greater than or equal to 10%.

D-4.2.8 IS Responses

Data were not qualified because of IS area counts.

C-4.2.9 Method Blanks

A total of 44 SVOC results were qualified as not detected (U) because the associated sample concentration was less than or equal to 5 times the amount in the method blank.

C-4.2.10 MS Samples

Data were not qualified because of MS recoveries.

C-4.2.11 Laboratory Duplicate Samples

Laboratory duplicates collected for organic chemical analyses indicated acceptable precision for all samples.

C-4.2.12 LCS Recoveries

A total of 44 SVOC results were qualified as estimated not detected (UJ) because the LCS percent recovery was less than the LAL but greater than 10%.

C-4.2.13 Practical Quantitation Limits and MDLs

A total of 52 PCB results, 186 SVOC results were qualified as estimated (J) because the sample result was reported as detected between the practical quantitation limit (PQL) and the MDL.

C-4.2.14 Rejected Data

None of the organic results were qualified as rejected (R).

C-5.0 RADIONUCLIDE ANALYSES

A total of 89 samples (plus 8 field duplicates) were collected at the former waste stockpile area at SWMU 39-001(a) and analyzed isotopic uranium (uranium-238). The analytical method used for radionuclides is listed in Table C-1.0-1.

Tables in the ACA report summarize all samples collected and the analyses requested for the 2017 ACA conducted at sites in the North Ancho Canyon Aggregate Area. Only samples collected at the former waste stockpile area at SWMU 39-001(a) were analyzed for uranium-238. All radionuclide results (uranium-238) are provided in Appendix D.

C-5.1 Radionuclide QA/QC Samples

All procedures were followed as required by the analytical services SOWs (LANL 2008, 109962; LANL 2015, 600520). Some sample results were qualified as not detected (U). This data qualification is related only to detection status, not to the quality of the data.

To assess the accuracy and precision of radionuclide analyses, LCSs, method blanks, MS samples, laboratory duplicate samples, and tracers were analyzed as part of the investigations. Each of these QA/QC sample types is defined in the analytical services SOWs (LANL 2008, 109962; LANL 2015, 600520) and is described briefly below.

The LCS serves as a monitor of the overall performance of each step during the analysis, including sample digestion. For radionuclides in soil or tuff, LCS percent recovery should fall between the control limits of 80%–120%.

A method blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as those used in the environmental sample processing; it is analyzed in the same manner as the corresponding environmental samples. Method blanks are used to assess the potential for sample contamination during analysis. All radionuclide results should be below the minimum detectable activity.

MS samples assess the accuracy of inorganic chemical analyses. These samples are designed to provide information about the effect of the sample matrix on the sample preparation procedures and analytical technique. The MS acceptance criterion is 75%–125%.

Tracers are radioisotopes added to a sample for the purposes of monitoring losses of the target analyte. The tracer is assumed to behave in the same manner as the target analytes. The tracer recoveries should fall between the LAL and UAL.

Laboratory duplicate samples assess the precision of radionuclide analyses. All relative percent differences between the sample and laboratory duplicate should be ±35% for soil (LANL 2008, 109962; LANL 2015, 600520).

C-5.2 Data Quality Results for Radionuclides

C-5.2.1 Maintenance of COC

SCL/COC forms were maintained properly for all samples (Appendix D).

C-5.2.2 Sample Documentation

All samples were properly documented on the SCL/COC forms in the field (Appendix D).

C-5.2.3 Sample Dilutions

None of the samples were diluted for radionuclide analyses (uranium-238).

C-5.2.4 Sample Preservation

Preservation criteria were met for all samples analyzed for radionuclides (uranium-238).

C-5.2.5 Holding Times

Holding-time criteria were met for all samples analyzed for radionuclides (uranium-238).

C-5.2.6 Method Blanks

Sixteen uranium-238 results were qualified as estimated and biased high (J+) because this analyte was identified in the method blank, but was less than 5 times the concentration of the related analyte in the method blank.

C-5.2.7 MS Samples

Data were not qualified because of MS recoveries.

C-5.2.8 Tracer Recoveries

Data were not qualified because of tracer recoveries.

C-5.2.9 LCS Recoveries

LCS recovery criteria were met for all samples analyzed for radionuclides (uranium-238).

C-5.2.10 Laboratory Duplicate Samples Recoveries

Two uranium-238 results were qualified as estimated (J) because the associated duplicate sample has a duplicate error ratio or a relative error ratio greater than the analytical laboratory's acceptance limits.

C-5.2.11 Rejected Data

None of the uranium-238 results were qualified as rejected (R).

C-6.0 REFERENCES

The following list includes all documents cited in this appendix. Parenthetical information following each reference provides the author(s), publication date, and ER ID or ESH ID. This information is also included in text citations. ER IDs were assigned by the Environmental Programs Directorate's Records Processing Facility (IDs through 599999), and ESH IDs are assigned by the Environment, Safety, and Health (ESH) Directorate (IDs 600000 and above). IDs are used to locate documents in the Laboratory's Electronic Document Management System and, where applicable, in the master reference set.

Copies of the master reference set are maintained at the New Mexico Environment Department Hazardous Waste Bureau and the ESH Directorate. The set was developed to ensure that the administrative authority has all material needed to review this document, and it is updated with every document submitted to the administrative authority. Documents previously submitted to the administrative authority are not included.

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

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

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

LANL (Los Alamos National Laboratory), June 30, 2008. "Exhibit 'D' Scope of Work and Technical Specifications, Analytical Laboratory Services for General Inorganic, Organic, Radiochemical, Asbestos, Low-Level Tritium, Particle Analysis, Bioassay, Dissolved Organic Carbon Fractionation, and PCB Congeners," Los Alamos National Laboratory document RFP No. 63639-RFP-08, Los Alamos, New Mexico. (LANL 2008, 109962)

LANL (Los Alamos National Laboratory), March 9, 2015. "Exhibit 'D' Scope of Work and Technical Specifications for Off-Site Analytical Laboratory Services," Subcontract No. 250953, Los Alamos National Laboratory, Los Alamos, New Mexico. (LANL 2015, 600520)

Table C-1.0-1
Inorganic Chemical, Organic Chemical, and Radionuclide Analytical Methods for Samples Collected during the 2017 ACA at North Ancho Canyon Aggregate Area Sites

Analytical Method	Analytical Description	Analytical Suite
EPA SW-846: 6010/6010C	Inductively coupled plasma emission spectroscopy—atomic emission spectroscopy	Lead (TAL metals)
EPA SW-846:6020B	Inductively coupled plasma mass spectrometry	Lead (TAL metals)
EPA SW-846: 8082	Gas chromatography	PCBs
EPA SW-846: 8270 and 8270C	GC/MS	SVOCs
HASL-300: ISOU	Chemical separation alpha spectrometry	Uranium-238

Appendix D

Analytical Suites and Results and Analytical Reports
(on CD included with this document)

Appendix E

Management of Investigation-Derived Waste

E-1.0 INTRODUCTION

This appendix describes the waste streams generated during the 2017 Accelerated Corrective Action (ACA) conducted at several sites in the North Ancho Canyon Aggregate Area. All wastes generated during the ACA are being managed in accordance with procedure EP-DIR-SOP-10021, "Characterization & Management of EP Waste," which incorporates the requirements of all applicable U.S. Environmental Protection Agency (EPA) and New Mexico Environment Department (NMED) regulations, U.S. Department of Energy (DOE) orders, and Los Alamos National Laboratory (LANL or the Laboratory) implementation requirements (LIR). In accordance with this procedure, a waste characterization strategy (WCSF) form was prepared for this investigation (Attachment E-1).

The waste streams generated during this ACA are summarized in Table E-1.0-1 and briefly described below.

E-2.0 EXCAVATED SOIL

The soil generated consisted of approximately:

- 810 yd^3 excavated from the former waste stockpile area at SWMU 39-001(a),
- 41 yd^3 excavated from the former waste stockpile area at SWMU 39-001(b), and
- 7 yd^3 excavated from SWMU 39-007(a).

The material excavated from the former waste stockpile areas at SWMUs 39-001(a) and 39-001 (b) and from SWMU 39-007(a) consisted of soil. The excavated material from each site was characterized separately by direct sampling.

Based on the analytical data from direct sampling and on acceptable knowledge (AK) of the waste materials from previous site investigations, the soil from the former waste stockpile area at SWMU 39-001(a) was characterized as three separate waste streams: Low-level waste (LLW) with polychlorinated biphenyls (PCBs) of less than 50 ppm, industrial waste with PCB concentrations less than 50 ppm, and Toxic Substance Control Act (TSCA) waste with PCB concentrations between 50–500 ppm. The highest PCB concentration detected was in a 2017 waste sample: Aroclor-1254 was detected at 11.6 ppm. However, PCBs detected in 2010 ranged from 360–850 ppm in two cells, so a conservative approach was taken and material excavated from this area was managed and disposed of as TSCA waste.

LLW with PCB concentrations between 50–500 ppm was disposed of at the Energy Solutions facility in Clive, Utah. Industrial waste with PCB concentrations less than 50 ppm was disposed of at the Waste Management facility in Rio Rancho, New Mexico. TSCA waste with PCB concentrations between 50–500 ppm will be disposed of at the Clean Harbors facility in Phoenix, Arizona. Industrial waste with no PCBs was disposed of at the Waste Management facility in Rio Rancho, New Mexico.

Excavated soil from the former waste stockpile area at SWMU 39-001(b) was characterized as industrial with no PCBs. The highest total PCB concentration detected was 0.776 ppm. This and all other results for PCBs and radioactive material were below regulatory limits. The industrial waste with no PCBs was disposed of at the Waste Management facility in Rio Rancho, New Mexico.

Excavated soil from SWMU 39-007(a) was characterized as industrial with PCBs less than 50 ppm. The highest PCB concentration detected was in a 2017 waste sample (Aroclor-1254 was detected at 0.555 ppm). This and all other results for PCBs and radioactive material were below regulatory limits. The industrial waste with PCB concentrations less than 50 ppm was disposed of at the Waste Management facility in Rio Rancho, New Mexico.

Based on current shipping schedules, it is anticipated that all waste will be transported offsite by the end of January 2018.

E-3.0 CONTACT WASTE

Contact waste including personal protective equipment (PPE) (e.g., gloves); plastic sheeting (e.g., tarps, liners); and dry decontamination wastes, such as paper items generated was placed into the same containers as the excavated media per the WCSF.

Table E-1.0-1
Generation and Management of the
Investigation-Derived Waste for North Ancho Canyon Aggregate Area

Waste Stream	Waste Type	Volume	Final Disposition
Excavated Soil	LLW <50 ppm PCB	522 yd^3	EnergySolutions facility in Clive, Utah
	TSCA 50–500 ppm PCB	82 yd^3	Clean Harbors facility in Phoenix, Arizona
	Industrial Waste <50 ppm PCB	213 yd^3	Waste Management facility in Rio Rancho, New Mexico
	Industrial Waste No PCB	41 yd^3	Waste Management facility in Rio Rancho, New Mexico
Contact Waste	Included and managed with waste type listed above as it was generated		

Attachment E-1

Waste Characterization Strategy Form
(on CD included with this document)

Appendix F

Photographs from Accelerated Corrective Action at North Ancho Canyon Aggregate Area at Technical Area 39



Figure 1 Collection of extent samples during accelerated corrective action (ACA)



Figure 2 Sample screening performed during ACA by Los Alamos National Laboratory radiological control technicians (RCTs)



Figure 3 Equipment decontamination during ACA



Figure 4 Placing supersack in loading frame during ACA



Figure 5 Filling supersack with excavated material during ACA



Figure 6 Removing frame from filled supersack during ACA



Figure 7 Filled supersacks in waste staging area at TA-39



Figure 8 View of former waste stockpile area at SWMU 39-001(a) prior to excavation activities



Figure 9 View of former waste stockpile area at SWMU 39-001(a) during excavation activities



Figure 10 Delivery of clean backfill material at former waste stockpile area at SWMU 39-001(a)



Figure 11 View of former waste stockpile area at SWMU 39-001(a) during backfilling activities



Figure 12 View of reseeding activities at waste stockpile area at SWMU 39-001(a)



Figure 13 View of hydro-mulching activities at waste stockpile area at SWMU 39-001(a)



Figure 14 View of former waste stockpile area at SWMU 39-001(b) prior to excavation activities



Figure 15 View of waste stockpile area at SWMU 39-001(b) during excavation activities



Figure 16 Delivery of clean backfill material at former waste stockpile area at SWMU 39-001(b)



Figure 17 View of waste stockpile area at SWMU 39-001(b) after hydro-mulching activities



Figure 18 View of SWMU 39-007(a) during excavation activities



Figure 19 View of excavated area at SWMU 39-007(a)



Figure 20 View of backfilling activities at SWMU 39-007(a)



Figure 21 View of SWMU 39-007(a) after contouring



Figure 22 View of SWMU 39-007(a) after addition of base course



Figure 23 Loading supersacks for transport to offsite disposal facility



Figure 24 Covering and securing supersacks for transport to offsite disposal facility

1639549 1639599 1639649 1639699 1639749 1639799 1639849 1639899

1744021 1743971 1743921 1743871 1743821 1743771 1743721 1743671

39-61433 TD: 0-1 ft

39-61429 TD: 0-1 ft
RE39-17-139635 0-1 ft SOIL
Total PCBs 0.00195 (J)

39-61430 TD: 0-1 ft

39-61431 TD: 0-1 ft
RE39-17-139637 0-1 ft SOIL
Total PCBs 0.00262 (J)

39-61455 TD: 1-2 ft
RE39-17-139661 1-2 ft SOIL
Total PCBs 0.0073

39-61457 TD: 1-2 ft
RE39-17-139663 1-2 ft SOIL
Total PCBs 0.0177

39-61432 TD: 0-1 ft
RE39-17-139638 0-1 ft SOIL
Total PCBs 0.0264

39-61454 TD: 1-2 ft

39-61456 TD: 1-2 ft
RE39-17-139662 1-2 ft SOIL
Total PCBs 0.0265

39-61461 TD: 1-2 ft
RE39-17-139667 1-2 ft SOIL
Total PCBs 0.228

39-61459 TD: 1-2 ft

39-61463 TD: 1-2 ft

39-61465 TD: 1-2 ft
RE39-17-139671 1-2 ft SOIL
Total PCBs 0.01767

39-61467 TD: 1-2 ft

39-61460 TD: 1-2 ft
RE39-17-139666 1-2 ft SOIL
Total PCBs 0.4

39-61464 TD: 1-2 ft
RE39-17-139670 1-2 ft SOIL
Total PCBs 0.0654

39-61466 TD: 1-2 ft
RE39-17-139672 1-2 ft SOIL
Total PCBs 0.00318 (J)

39-61458 TD: 1-2 ft
RE39-17-139664 1-2 ft SOIL
Total PCBs 0.0016 (J)

39-61462 TD: 1-2 ft
RE39-17-139668 1-2 ft SOIL
Total PCBs 0.01955

39-61471 TD: 1-2 ft
RE39-17-139677 1-2 ft SOIL
Total PCBs 0.41

39-61473 TD: 1-2 ft
RE39-17-139679 1-2 ft SOIL
Total PCBs 0.3101

39-61475 TD: 1-2 ft
RE39-17-139681 1-2 ft SOIL
Total PCBs 0.01777

39-61477 TD: 1-2 ft
RE39-17-139683 1-2 ft SOIL
Total PCBs 0.0453

39-61436 TD: 0-1 ft
RE39-17-139642 0-1 ft SOIL
Total PCBs 0.00189 (J)

39-61469 TD: 1-2 ft
RE39-17-139675 1-2 ft SOIL
Total PCBs 0.1805

39-61472 TD: 2-3 ft
RE39-17-147331 2-3 ft SOIL
Total PCBs 0.0227

39-61474 TD: 2-3 ft
RE39-17-147332 2-3 ft SOIL
Total PCBs 0.0102

39-61476 TD: 1-2 ft
RE39-17-139682 1-2 ft SOIL
Total PCBs 0.01825

39-61468 TD: 1-2 ft

39-61470 TD: 2-3 ft
RE39-17-147330 2-3 ft SOIL
Total PCBs 0.504

39-61479 TD: 1-2 ft

39-61483 TD: 1-2 ft
RE39-17-139689 1-2 ft SOIL
Total PCBs 0.579

39-61485 TD: 3-4 ft
RE39-17-139691 3-4 ft SOIL
Total PCBs 0.284

39-61487 TD: 3-4 ft
RE39-17-139693 3-4 ft SOIL
Total PCBs 0.00613

39-61489 TD: 1-2 ft
RE39-17-139695 1-2 ft SOIL
Total PCBs 0.00218 (J)

39-61434 TD: 0-1 ft

39-61478 TD: 1-2 ft

39-61481 TD: 3-4 ft
RE39-17-143130 3-4 ft SOIL
Total PCBs 0.0388

39-61484 TD: 3-4 ft
RE39-17-139690 3-4 ft SOIL
Total PCBs 0.244

39-61486 TD: 3-4 ft
RE39-17-139692 3-4 ft SOIL
Total PCBs 0.547

39-61488 TD: 2-3 ft

39-61437 TD: 0-1 ft
RE39-17-139643 0-1 ft SOIL
Total PCBs 0.01784

39-61480 TD: 1-2 ft

39-61482 TD: 1-2 ft
RE39-17-139688 1-2 ft SOIL
Total PCBs 0.03622

39-61438 TD: 0-1 ft
RE39-17-139644 0-1 ft SOIL
Total PCBs 0.00485

39-61491 TD: 1-2 ft
RE39-17-139697 1-2 ft SOIL
Total PCBs 0.1361

39-61493 TD: 1-2 ft
RE39-17-139699 1-2 ft SOIL
Total PCBs 0.0602

39-61497 TD: 2-3 ft
RE39-17-147336 2-3 ft SOIL
Total PCBs 0.249

39-61499 TD: 1-2 ft
RE39-17-139705 1-2 ft SOIL
Total PCBs 0.0959

39-61439 TD: 0-1 ft
RE39-17-139645 0-1 ft SOIL
Total PCBs 0.0448

39-61495 TD: 1-2 ft
RE39-17-139701 1-2 ft SOIL
Total PCBs 0.0556

39-61490 TD: 1-2 ft
RE39-17-139696 1-2 ft SOIL
Total PCBs 0.1968

39-61492 TD: 1-2 ft
RE39-17-139698 1-2 ft SOIL
Total PCBs 0.061

39-61494 TD: 1-2 ft
RE39-17-139700 1-2 ft SOIL
Total PCBs 0.238

39-61496 TD: 2-3 ft

39-61498 TD: 2-3 ft

39-61501 TD: 1-2 ft
RE39-17-139707 1-2 ft SOIL
Total PCBs 0.293

39-61507 TD: 1-2 ft
RE39-17-139713 1-2 ft SOIL
Total PCBs 0.1287

39-61509 TD: 1-2 ft
RE39-17-139715 1-2 ft SOIL
Total PCBs 0.00582

39-61440 TD: 0-1 ft
RE39-17-139646 0-1 ft SOIL
Total PCBs 0.0117

39-61503 TD: 1-2 ft
RE39-17-139709 1-2 ft SOIL
Total PCBs 0.00813

39-61505 TD: 1-2 ft
RE39-17-139711 1-2 ft SOIL
Total PCBs 0.391

39-61502 TD: 1-2 ft
RE39-17-139708 1-2 ft SOIL
Total PCBs 0.369

39-61508 TD: 1-2 ft

39-61441 TD: 0-1 ft
RE39-17-139647 0-1 ft SOIL
Total PCBs 0.00125 (J)

39-61500 TD: 1-2 ft
RE39-17-139706 1-2 ft SOIL
Total PCBs 0.01141

39-61504 TD: 1-2 ft
RE39-17-139710 1-2 ft SOIL
Total PCBs 0.0551

39-61506 TD: 1-2 ft
RE39-17-139712 1-2 ft SOIL
Total PCBs 0.02595

39-61442 TD: 0-1 ft
RE39-17-139648 0-1 ft SOIL
Total PCBs 0.00224 (J)

39-61511 TD: 1-2 ft
RE39-17-139717 1-2 ft SOIL
Total PCBs 0.0208

39-61513 TD: 1-2 ft
RE39-17-139719 1-2 ft SOIL
Total PCBs 0.101

39-61519 TD: 1-2 ft
RE39-17-139725 1-2 ft SOIL
Total PCBs 0.00293 (J)

39-61443 TD: 0-1 ft
RE39-17-139649 0-1 ft SOIL
Total PCBs 0.00791

39-61512 TD: 2-3 ft
RE39-17-147338 2-3 ft SOIL
Total PCBs 0.00408 (J)

39-61514 TD: 1-2 ft
RE39-17-139720 1-2 ft SOIL
Total PCBs 0.13

39-61515 TD: 1-2 ft
RE39-17-139721 1-2 ft SOIL
Total PCBs 0.0356

39-61517 TD: 1-2 ft
RE39-17-139723 1-2 ft SOIL
Total PCBs 0.197

39-61510 TD: 1-2 ft
RE39-17-139716 1-2 ft SOIL
Total PCBs 0.00217 (J)

39-61516 TD: 1-2 ft
RE39-17-139722 1-2 ft SOIL
Total PCBs 0.077

39-61518 TD: 1-2 ft
RE39-17-139724 1-2 ft SOIL
Total PCBs 0.00221 (J)

39-61521 TD: 1-2 ft
RE39-17-139727 1-2 ft SOIL
Total PCBs 0.2174

39-61523 TD: 1-2 ft
RE39-17-139729 1-2 ft SOIL
Total PCBs 0.1786

39-61444 TD: 0-1 ft
RE39-17-139650 0-1 ft SOIL
Total PCBs 0.0102

39-61445 TD: 0-1 ft
RE39-17-139651 0-1 ft SOIL
Total PCBs 0.2058

39-61446 TD: 0-1 ft
RE39-17-139652 0-1 ft SOIL
Total PCBs 0.31

39-61520 TD: 1-2 ft
RE39-17-139726 1-2 ft SOIL
Total PCBs 0.0447

39-61522 TD: 1-2 ft
RE39-17-139728 1-2 ft SOIL
Total PCBs 0.00719

39-61527 TD: 1-2 ft
RE39-17-139733 1-2 ft SOIL
Total PCBs 0.0781

39-61447 TD: 0-1 ft
RE39-17-139653 0-1 ft SOIL
Total PCBs 0.00385

39-61525 TD: 1-2 ft
RE39-17-139731 1-2 ft SOIL
Total PCBs 0.1609

39-61451 TD: 0-1 ft
RE39-17-139657 0-1 ft SOIL
Total PCBs 0.0103

39-61524 TD: 1-2 ft
RE39-17-139730 1-2 ft SOIL
Total PCBs 0.00461

39-61526 TD: 1-2 ft
RE39-17-139732 1-2 ft SOIL
Total PCBs 0.00705

39-61645 TD: 1-2 ft
RE39-17-143127 1-2 ft SOIL
Total PCBs 0.03912

39-61448 TD: 0-1 ft
RE39-17-139654 0-1 ft SOIL
Total PCBs 0.0221

39-61449 TD: 0-1 ft

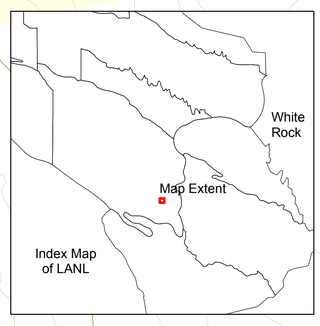
39-61644 TD: 1-2 ft
RE39-17-143126 1-2 ft SOIL
Total PCBs 0.00203 (J)

39-61450 TD: 0-1 ft
RE39-17-139656 0-1 ft SOIL
Total PCBs 0.0378

39-61435 TD: 0-1 ft
RE39-17-139641 0-1 ft SOIL
Total PCBs 0.00423

SWMU 39-001(a)
(SWMU 39-001(a) boundary defines 2009 excavation area)

Ancho Road



- Sampling location
- Electric
- Water
- Communication
- Paved road
- Decision unit with PCBs > 1.0 mg/kg
- Decision unit sampling grid
- SWMU 39-001(a)
- Stockpile boundary
- Area of contamination
- Index contour, 5-ft interval
- Terrain contour, 1-ft interval

State Plane Coordinate System
New Mexico, Central Zone, US Survey Feet
North American Datum 1983

Cartography by: Adelante Consulting, Inc.
Revised: 17 October 2017 D.Frank
Map# 10-0100-25A

All units are mg/kg

Disclaimer: This map was created for work processes associated with the LANL Environmental Programs Directorate, Environmental Remediation Program (EM-ER). All other uses for this map should be confirmed wit h EM-ER personnel

0 12.5 25 50 75 100 Feet

Plate 1
PCBs detected at the former waste stockpile area at SWMU 39-001(a)

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1636914

1637074

1747803

1747643

1747483

39-61551 TD: 0-1 ft
RE39-17-139769 0-1 ft SOIL
Total PCBs 0.0414

39-61552 TD: 0-1 ft
RE39-17-139770 0-1 ft SOIL
Total PCBs 0.0306

39-61553 TD: 0-1 ft
RE39-17-139771 0-1 ft SOIL
Total PCBs 0.0389

39-61554 TD: 0-1 ft
RE39-17-139772 0-1 ft SOIL
Total PCBs 0.025

39-61555 TD: 0-1 ft
RE39-17-139773 0-1 ft SOIL
Total PCBs 0.0282

39-61557 TD: 0-1 ft
RE39-17-139775 0-1 ft SOIL
Total PCBs 0.0186

39-61558 TD: 0-1 ft
RE39-17-139776 0-1 ft SOIL
Total PCBs 0.0307

39-61559 TD: 0-1 ft
RE39-17-139777 0-1 ft SOIL
Total PCBs 0.0266

39-61560 TD: 0-1 ft
RE39-17-139778 0-1 ft SOIL
Total PCBs 0.0215

39-61561 TD: 0-1 ft
RE39-17-139779 0-1 ft SOIL
Total PCBs 0.0197

39-61562 TD: 0-1 ft
RE39-17-139780 0-1 ft SOIL
Total PCBs 0.0132

39-61563 TD: 0-1 ft
RE39-17-139781 0-1 ft SOIL
Total PCBs 0.019

39-61564 TD: 0-1 ft
RE39-17-139782 0-1 ft SOIL
Total PCBs 0.0126

39-61565 TD: 0-1 ft
RE39-17-139783 0-1 ft SOIL
Total PCBs 0.018

39-61566 TD: 0-1 ft
RE39-17-139784 0-1 ft SOIL
Total PCBs 0.0217

39-61567 TD: 0-1 ft
RE39-17-139785 0-1 ft SOIL
Total PCBs 0.019

39-61568 TD: 0-1 ft
RE39-17-139786 0-1 ft SOIL
Total PCBs 0.0115

39-61569 TD: 0-1 ft
RE39-17-139787 0-1 ft SOIL
Total PCBs 0.161

39-61570 TD: 0-1 ft
RE39-17-139788 0-1 ft SOIL
Total PCBs 0.0232

39-61572 TD: 0-1 ft
RE39-17-139790 0-1 ft SOIL
Total PCBs 0.776

39-61651 TD: 0-1 ft
RE39-17-143184 0-1 ft SOIL
Total PCBs 0.00481

39-61573 TD: 0-1 ft
RE39-17-139791 0-1 ft SOIL
Total PCBs 0.012

39-61574 TD: 0-1 ft
RE39-17-139792 0-1 ft SOIL
Total PCBs 0.029

39-61575 TD: 0-1 ft
RE39-17-139793 0-1 ft SOIL
Total PCBs 0.034

39-61576 TD: 0-1 ft
RE39-17-139794 0-1 ft SOIL
Total PCBs 0.0112

39-61577 TD: 0-1 ft
RE39-17-139795 0-1 ft SOIL
Total PCBs 0.0292

39-61579 TD: 0-1 ft
RE39-17-139797 0-1 ft SOIL
Total PCBs 0.0125

39-61631 TD: 0-1 ft
RE39-17-139849 0-1 ft SOIL
Total PCBs 0.00914

39-61580 TD: 0-1 ft
RE39-17-139798 0-1 ft SOIL
Total PCBs 0.00857

39-61581 TD: 0-1 ft
RE39-17-139799 0-1 ft SOIL
Total PCBs 0.00716

39-61582 TD: 0-1 ft
RE39-17-139800 0-1 ft SOIL
Total PCBs 0.0986

39-61583 TD: 0-1 ft
RE39-17-139801 0-1 ft SOIL
Total PCBs 0.0133

39-61584 TD: 0-1 ft
RE39-17-139802 0-1 ft SOIL
Total PCBs 0.00256 (J)

39-61585 TD: 0-1 ft
RE39-17-139803 0-1 ft SOIL
Total PCBs 0.01525

39-61586 TD: 0-1 ft

39-61587 TD: 0-1 ft

39-61588 TD: 0-1 ft

39-61589 TD: 0-1 ft
RE39-17-139807 0-1 ft SOIL
Total PCBs 0.01856

39-61590 TD: 0-1 ft

39-61591 TD: 0-1 ft

39-61592 TD: 0-1 ft
RE39-17-139810 0-1 ft SOIL
Total PCBs 0.0151

39-61593 TD: 0-1 ft
RE39-17-139811 0-1 ft SOIL
Total PCBs 0.04444

39-61594 TD: 0-1 ft
RE39-17-139812 0-1 ft SOIL
Total PCBs 0.00585

39-61595 TD: 0-1 ft

39-61596 TD: 0-1 ft
RE39-17-139814 0-1 ft SOIL
Total PCBs 0.03607

39-61597 TD: 0-1 ft
RE39-17-139815 0-1 ft SOIL
Total PCBs 0.00644

39-61598 TD: 0-1 ft
RE39-17-139816 0-1 ft SOIL
Total PCBs 0.00246 (J)

39-61599 TD: 0-1 ft

39-61600 TD: 0-1 ft
RE39-17-139818 0-1 ft SOIL
Total PCBs 0.00288 (J)

39-61601 TD: 0-1 ft
RE39-17-139819 0-1 ft SOIL
Total PCBs 0.00389

39-61602 TD: 0-1 ft

39-61603 TD: 0-1 ft
RE39-17-139821 0-1 ft SOIL
Total PCBs 0.01136

39-61604 TD: 0-1 ft
RE39-17-139822 0-1 ft SOIL
Total PCBs 0.2612

39-61605 TD: 0-1 ft
RE39-17-139823 0-1 ft SOIL
Total PCBs 0.00244 (J)

39-61606 TD: 0-1 ft
RE39-17-139824 0-1 ft SOIL
Total PCBs 0.6262

39-61607 TD: 0-1 ft
RE39-17-139825 0-1 ft SOIL
Total PCBs 0.0077

39-61608 TD: 0-1 ft

39-61609 TD: 0-1 ft
RE39-17-139827 0-1 ft SOIL
Total PCBs 0.00174 (J)

39-61610 TD: 0-1 ft

39-61611 TD: 0-1 ft
RE39-17-139829 0-1 ft SOIL
Total PCBs 0.00617

39-61612 TD: 0-1 ft

39-61613 TD: 0-1 ft
RE39-17-139831 0-1 ft SOIL
Total PCBs 0.01206

39-61614 TD: 0-1 ft
RE39-17-139832 0-1 ft SOIL
Total PCBs 0.1303

39-61632 TD: 1-2 ft
RE39-17-139850 1-2 ft SOIL
Total PCBs 0.00264 (J)

39-61633 TD: 1-2 ft
RE39-17-139851 1-2 ft SOIL
Total PCBs 0.00329 (J)

39-61615 TD: 0-1 ft
RE39-17-139833 0-1 ft SOIL
Total PCBs 0.0636

39-61616 TD: 0-1 ft
RE39-17-139834 0-1 ft SOIL
Total PCBs 0.009

39-61617 TD: 0-1 ft
RE39-17-139835 0-1 ft SOIL
Total PCBs 0.02618

39-61618 TD: 0-1 ft
RE39-17-139836 0-1 ft SOIL
Total PCBs 0.0418

39-61619 TD: 0-1 ft
RE39-17-139837 0-1 ft SOIL
Total PCBs 0.0562

39-61620 TD: 0-1 ft
RE39-17-139838 0-1 ft SOIL
Total PCBs 0.01105

39-61634 TD: 1-2 ft
RE39-17-139852 1-2 ft SOIL
Total PCBs 0.15

39-61637 TD: 1-2 ft
RE39-17-139855 1-2 ft SOIL
Total PCBs 0.00132 (J)

39-61635 TD: 1-2 ft
RE39-17-139853 1-2 ft SOIL
Total PCBs 0.00206 (J)

39-61621 TD: 0-1 ft

39-61636 TD: 1-2 ft

39-61622 TD: 0-1 ft
RE39-17-139840 0-1 ft SOIL
Total PCBs 0.00591

39-61623 TD: 0-1 ft
RE39-17-139841 0-1 ft SOIL
Total PCBs 0.0116

39-61624 TD: 0-1 ft
RE39-17-139842 0-1 ft SOIL
Total PCBs 0.00404

39-61625 TD: 0-1 ft
RE39-17-139843 0-1 ft SOIL
Total PCBs 0.4596

39-61626 TD: 0-1 ft
RE39-17-139844 0-1 ft SOIL
Total PCBs 0.04172

39-61627 TD: 0-1 ft

39-61628 TD: 0-1 ft

39-61650 TD: 1-2 ft

39-61629 TD: 0-1 ft
RE39-17-139847 0-1 ft SOIL
Total PCBs 0.01551

39-61630 TD: 0-1 ft
RE39-17-139848 0-1 ft SOIL
Total PCBs 0.03434

39-61649 TD: 1-2 ft

39-61578 TD: 0-1 ft
RE39-17-139796 0-1 ft SOIL
Total PCBs 0.0104

SWMU 39-001(b)

6400

6395

Access Road

E

0 5 10 20 30 40 Feet

State Plane Coordinate System
New Mexico, Central Zone, US Survey Feet
North American Datum 1983

Cartography by: Adelante Consulting, Inc.
Revised: 17 October 2017 D.Frank
Map# 10-0100-26A

All units are mg/kg

Disclaimer: This map was created for work processes associated with the LANL Environmental Programs Directorate, Environmental Remediation Program (EM-ER). All other uses for this map should be confirmed wit h EM-ER personnel

- Sampling location
- Paved road
- Electric line
- Decision unit with PCBs > 1 mg/kg
- Decision unit sampling grid
- SWMU 39-001(a)
- Waste stockpile
- Area of contamination
- Excavation boundary
- Index contour, 5-ft interval
- Terrain contour, 1-ft interval

Plate 2
PCBs detected at the former waste stockpile area at SWMU 39-001(b)

Los Alamos
White Rock
Map Extent
Index Map of LANL

Document Path: \\slip\gis\GIS\Projects\17-Projects\17-0011\mxd\map_10-0100-26A_39-001(b)_total_pcb_figure_5.3-2.mxd

1636877 1637037

1747785 1747785

39-61551 TD: 0-1 ft
RE39-17-139769 0-1 ft SOIL
Phenanthrene 0.0246 (J)

39-61552 TD: 0-1 ft
RE39-17-139770 0-1 ft SOIL
Benzoic Acid 0.396
Bis(2-ethylhexyl)phthalate 0.0831
Phenanthrene 0.0419 (J)

39-61553 TD: 0-1 ft
RE39-17-139771 0-1 ft SOIL
Bis(2-ethylhexyl)phthalate 0.05 (J)
Phenanthrene 0.03 (J)

39-61554 TD: 0-1 ft
RE39-17-139772 0-1 ft SOIL
Bis(2-ethylhexyl)phthalate 0.0681
Phenanthrene 0.0311 (J)

39-61555 TD: 0-1 ft
RE39-17-139773 0-1 ft SOIL
Benzo(a)anthracene 0.0291 (J)
Chrysene 0.0281 (J)
Fluoranthene 0.0696
Phenanthrene 0.0634 (J)
Pyrene 0.0611 (J)

39-61557 TD: 0-1 ft
RE39-17-139775 0-1 ft SOIL
Acenaphthene 0.177
Anthracene 0.276
Benzo(a)anthracene 0.52
Benzo(a)pyrene 0.587
Benzo(b)fluoranthene 0.672
Benzo(g,h,i)perylene 0.438
Benzo(k)fluoranthene 0.292
Bis(2-ethylhexyl)phthalate 0.056 (J)
Chrysene 0.515
Dibenzofuran 0.107
Fluoranthene 1.24
Fluorene 0.177
Indeno(1,2,3-cd)pyrene 0.359
Methylnaphthalene[1-] 0.0344 (J)
Methylnaphthalene[2-] 0.0462 (J)
Naphthalene 0.127
Phenanthrene 1.2
Pyrene 1.09

39-61558 TD: 0-1 ft
RE39-17-139776 0-1 ft SOIL
Benzoic Acid 0.344
Bis(2-ethylhexyl)phthalate 0.0556 (J)
Phenanthrene 0.0285 (J)

39-61559 TD: 0-1 ft

39-61560 TD: 0-1 ft
RE39-17-139778 0-1 ft SOIL
Benzo(a)anthracene 0.0481 (J)
Benzo(a)pyrene 0.057 (J)
Benzo(b)fluoranthene 0.0668
Benzo(g,h,i)perylene 0.0474 (J)
Chrysene 0.0494 (J)
Fluoranthene 0.128
Phenanthrene 0.112
Pyrene 0.112

39-61561 TD: 0-1 ft

39-61562 TD: 0-1 ft

39-61563 TD: 0-1 ft

39-61564 TD: 0-1 ft
RE39-17-139782 0-1 ft SOIL
Benzoic Acid 0.341

39-61565 TD: 0-1 ft
RE39-17-139783 0-1 ft SOIL
Benzoic Acid 0.344

39-61566 TD: 0-1 ft

39-61567 TD: 0-1 ft

39-61568 TD: 0-1 ft

39-61569 TD: 0-1 ft
RE39-17-139787 0-1 ft SOIL
Acenaphthene 0.0738
Anthracene 0.164
Benzo(a)anthracene 0.411
Benzo(a)pyrene 0.405
Benzo(b)fluoranthene 0.479
Benzo(g,h,i)perylene 0.331
Benzo(k)fluoranthene 0.203
Bis(2-ethylhexyl)phthalate 0.0545 (J)
Chrysene 0.443
Dibenzofuran 0.0415 (J)
Fluoranthene 1.01
Fluorene 0.0755
Indeno(1,2,3-cd)pyrene 0.264
Phenanthrene 0.761
Pyrene 0.873

39-61570 TD: 0-1 ft
RE39-17-139788 0-1 ft SOIL
Fluoranthene 0.0376 (J)
Phenanthrene 0.0319 (J)
Pyrene 0.0316 (J)

39-61572 TD: 0-1 ft
RE39-17-139790 0-1 ft SOIL
Acenaphthene 0.696
Acenaphthylene 0.178 (J)
Anthracene 1.65
Benzo(a)anthracene 3.26
Benzo(a)pyrene 2.92
Benzo(b)fluoranthene 3.63
Benzo(g,h,i)perylene 2.4
Benzo(k)fluoranthene 1.43
Bis(2-ethylhexyl)phthalate 0.57
Chrysene 3.25
Dibenzofuran 0.491
Di-n-octylphthalate 1.51
Fluoranthene 8.06
Fluorene 0.853
Indeno(1,2,3-cd)pyrene 2.05
Methylnaphthalene[1-] 0.146 (J)
Methylnaphthalene[2-] 0.168 (J)
Naphthalene 0.601
Phenanthrene 7.03
Pyrene 6.88

39-61651 TD: 0-1 ft

39-61573 TD: 0-1 ft

39-61574 TD: 0-1 ft
RE39-17-139792 0-1 ft SOIL
Benzoic Acid 0.357

39-61575 TD: 0-1 ft
RE39-17-139793 0-1 ft SOIL
Acenaphthene 0.024 (J)
Anthracene 0.0591 (J)
Benzo(a)anthracene 0.149
Benzo(a)pyrene 0.133
Benzo(b)fluoranthene 0.167
Benzo(g,h,i)perylene 0.111
Benzo(k)fluoranthene 0.0692
Chrysene 0.153
Fluoranthene 0.379
Fluorene 0.0279 (J)
Indeno(1,2,3-cd)pyrene 0.0935
Phenanthrene 0.273
Pyrene 0.319

39-61576 TD: 0-1 ft
RE39-17-139794 0-1 ft SOIL
Fluoranthene 0.0313 (J)
Pyrene 0.0287 (J)

39-61577 TD: 0-1 ft
RE39-17-139795 0-1 ft SOIL
Benzo(a)anthracene 0.0547 (J)
Benzo(a)pyrene 0.0517 (J)
Benzo(b)fluoranthene 0.0646 (J)
Benzo(g,h,i)perylene 0.0435 (J)
Chrysene 0.0557 (J)
Fluoranthene 0.135
Phenanthrene 0.0972
Pyrene 0.115

39-61579 TD: 0-1 ft

39-61631 TD: 0-1 ft
RE39-17-139849 0-1 ft SOIL
Bis(2-ethylhexyl)phthalate 0.0498 (J)

39-61580 TD: 0-1 ft

39-61581 TD: 0-1 ft

39-61582 TD: 0-1 ft

39-61583 TD: 0-1 ft

39-61584 TD: 0-1 ft
RE39-17-139802 0-1 ft SOIL
Acenaphthene 0.721
Anthracene 0.0123 (J)
Benzo(a)anthracene 0.0516
Benzo(a)pyrene 0.0563
Benzo(b)fluoranthene 0.0642
Benzo(g,h,i)perylene 0.0422
Benzo(k)fluoranthene 0.0242 (J)
Chrysene 0.0595
Fluoranthene 0.128
Indeno(1,2,3-cd)pyrene 0.0144 (J)
Phenanthrene 0.079
Pyrene 0.126

39-61585 TD: 0-1 ft
RE39-17-139803 0-1 ft SOIL
Acenaphthene 0.0376
Anthracene 0.0639
Benzo(a)anthracene 0.189
Benzo(a)pyrene 0.205
Benzo(b)fluoranthene 0.228
Benzo(g,h,i)perylene 0.161
Benzo(k)fluoranthene 0.107
Chrysene 0.217
Dibenz(a,h)anthracene 0.0383
Fluoranthene 0.478
Fluorene 0.0369
Indeno(1,2,3-cd)pyrene 0.134
Naphthalene 0.0193 (J)
Phenanthrene 0.374
Pyrene 0.511

39-61586 TD: 0-1 ft

39-61587 TD: 0-1 ft

39-61588 TD: 0-1 ft

39-61589 TD: 0-1 ft
RE39-17-139807 0-1 ft SOIL
Benzo(a)anthracene 0.03 (J)
Benzo(a)pyrene 0.0279 (J)
Benzo(b)fluoranthene 0.0272 (J)
Benzo(g,h,i)perylene 0.0198 (J)
Chrysene 0.0297 (J)
Fluoranthene 0.0583
Indeno(1,2,3-cd)pyrene 0.0205 (J)
Phenanthrene 0.0445
Pyrene 0.0682

39-61590 TD: 0-1 ft

39-61591 TD: 0-1 ft

39-61592 TD: 0-1 ft
RE39-17-139810 0-1 ft SOIL
Acenaphthene 0.0213 (J)
Anthracene 0.0426
Benzo(a)anthracene 0.125
Benzo(a)pyrene 0.134
Benzo(b)fluoranthene 0.158
Benzo(g,h,i)perylene 0.0972
Benzo(k)fluoranthene 0.0642
Chrysene 0.146
Dibenz(a,h)anthracene 0.0172 (J)
Fluoranthene 0.375
Fluorene 0.0209 (J)
Indeno(1,2,3-cd)pyrene 0.112
Naphthalene 0.0114 (J)
Phenanthrene 0.256
Pyrene 0.278

39-61593 TD: 0-1 ft
RE39-17-139811 0-1 ft SOIL
Acenaphthene 0.023 (J)
Anthracene 0.0389
Benzo(a)anthracene 0.137
Benzo(a)pyrene 0.153
Benzo(b)fluoranthene 0.166
Benzo(g,h,i)perylene 0.104
Benzo(k)fluoranthene 0.0882
Chrysene 0.16
Dibenz(a,h)anthracene 0.0271 (J)
Fluoranthene 0.331
Fluorene 0.0222 (J)
Indeno(1,2,3-cd)pyrene 0.086
Phenanthrene 0.246
Pyrene 0.335

39-61594 TD: 0-1 ft
RE39-17-139812 0-1 ft SOIL
Acenaphthene 0.128
Anthracene 0.186
Benzo(a)anthracene 0.615
Benzo(a)pyrene 0.598
Benzo(b)fluoranthene 0.725
Benzo(g,h,i)perylene 0.297
Benzo(k)fluoranthene 0.299
Chrysene 0.713
Dibenz(a,h)anthracene 0.0883
Fluoranthene 1.28
Fluorene 0.114
Indeno(1,2,3-cd)pyrene 0.336
Methylnaphthalene[2-] 0.0214 (J)
Naphthalene 0.0761
Phenanthrene 1.15
Pyrene 1.33

39-61595 TD: 0-1 ft

39-61596 TD: 0-1 ft
RE39-17-139814 0-1 ft SOIL
Acenaphthene 0.0564
Anthracene 0.0454
Benzo(a)anthracene 0.158
Benzo(a)pyrene 0.159
Benzo(b)fluoranthene 0.201
Benzo(g,h,i)perylene 0.106
Benzo(k)fluoranthene 0.0728
Bis(2-ethylhexyl)phthalate 0.139 (J)
Chrysene 0.177
Dibenz(a,h)anthracene 0.0172 (J)
Fluoranthene 0.41
Fluorene 0.0332 (J)
Indeno(1,2,3-cd)pyrene 0.101
Naphthalene 0.0183 (J)
Phenanthrene 0.338
Pyrene 0.371

39-61597 TD: 0-1 ft
RE39-17-139815 0-1 ft SOIL
Benzo(a)anthracene 0.0144 (J)
Benzo(a)pyrene 0.0144 (J)
Chrysene 0.0141 (J)
Fluoranthene 0.0236 (J)
Phenanthrene 0.0166 (J)
Pyrene 0.025 (J)

39-61598 TD: 0-1 ft

39-61599 TD: 0-1 ft

39-61600 TD: 0-1 ft
RE39-17-139818 0-1 ft SOIL
Benzo(a)anthracene 0.0163 (J)
Benzo(b)fluoranthene 0.0204 (J)
Benzo(g,h,i)perylene 0.0113 (J)
Chrysene 0.0174 (J)
Fluoranthene 0.0272 (J)
Phenanthrene 0.0151 (J)
Pyrene 0.0333 (J)

39-61601 TD: 0-1 ft
RE39-17-139819 0-1 ft SOIL
Benzo(a)anthracene 0.0183 (J)
Benzo(b)fluoranthene 0.028 (J)
Chrysene 0.0201 (J)
Fluoranthene 0.038
Phenanthrene 0.0257 (J)
Pyrene 0.0451

39-61602 TD: 0-1 ft

39-61603 TD: 0-1 ft
RE39-17-139821 0-1 ft SOIL
Benzo(a)anthracene 0.0151 (J)
Benzo(a)pyrene 0.0154 (J)
Benzo(b)fluoranthene 0.0147 (J)
Benzo(g,h,i)perylene 0.0117 (J)
Chrysene 0.0187 (J)
Fluoranthene 0.036 (J)
Indeno(1,2,3-cd)pyrene 0.0128 (J)
Phenanthrene 0.0301 (J)
Pyrene 0.0374

39-61604 TD: 0-1 ft
RE39-17-139822 0-1 ft SOIL
Acenaphthene 0.0159 (J)
Anthracene 0.0246 (J)
Benzo(a)anthracene 0.0854
Benzo(a)pyrene 0.0937
Benzo(b)fluoranthene 0.112
Benzo(g,h,i)perylene 0.0785
Benzo(k)fluoranthene 0.0463
Chrysene 0.108
Dibenz(a,h)anthracene 0.0188 (J)
Fluoranthene 0.181
Fluorene 0.013 (J)
Indeno(1,2,3-cd)pyrene 0.0742
Phenanthrene 0.158
Pyrene 0.229

39-61605 TD: 0-1 ft
RE39-17-139823 0-1 ft SOIL
Benzo(a)anthracene 0.025 (J)
Benzo(a)pyrene 0.0201 (J)
Benzo(b)fluoranthene 0.0268 (J)
Benzo(g,h,i)perylene 0.0142 (J)
Benzo(k)fluoranthene 0.0127 (J)
Chrysene 0.0179 (J)
Fluoranthene 0.0451
Indeno(1,2,3-cd)pyrene 0.0156 (J)
Phenanthrene 0.0268 (J)
Pyrene 0.0469

39-61606 TD: 0-1 ft
RE39-17-139824 0-1 ft SOIL
Acenaphthene 0.13
Anthracene 0.302
Benzo(a)anthracene 0.65
Benzo(a)pyrene 0.654
Benzo(b)fluoranthene 0.761
Benzo(g,h,i)perylene 0.555
Benzo(k)fluoranthene 0.322
Chrysene 0.705
Dibenz(a,h)anthracene 0.147
Fluoranthene 1.5
Fluorene 0.16
Indeno(1,2,3-cd)pyrene 0.563
Methylnaphthalene[2-] 0.025 (J)
Naphthalene 0.0991
Phenanthrene 1.55
Pyrene 1.71

39-61607 TD: 0-1 ft

39-61608 TD: 0-1 ft

39-61609 TD: 0-1 ft
RE39-17-139827 0-1 ft SOIL
Anthracene 0.0151 (J)
Benzo(a)anthracene 0.0309 (J)
Benzo(a)pyrene 0.0287 (J)
Benzo(b)fluoranthene 0.0306 (J)
Benzo(g,h,i)perylene 0.0234 (J)
Benzo(k)fluoranthene 0.0158 (J)
Chrysene 0.0328 (J)
Fluoranthene 0.0611
Indeno(1,2,3-cd)pyrene 0.0272 (J)
Phenanthrene 0.0649
Pyrene 0.0732

39-61610 TD: 0-1 ft

39-61611 TD: 0-1 ft
RE39-17-139829 0-1 ft SOIL
Benzo(a)anthracene 0.0159 (J)
Chrysene 0.0119 (J)
Fluoranthene 0.0228 (J)
Phenanthrene 0.0166 (J)
Pyrene 0.0238 (J)

39-61612 TD: 0-1 ft

39-61613 TD: 0-1 ft
RE39-17-139831 0-1 ft SOIL
Benzo(a)anthracene 0.0174 (J)
Benzo(a)pyrene 0.012 (J)
Benzo(g,h,i)perylene 0.0131 (J)
Chrysene 0.0138 (J)
Fluoranthene 0.0276 (J)
Indeno(1,2,3-cd)pyrene 0.0141 (J)
Phenanthrene 0.016 (J)
Pyrene 0.0305 (J)

39-61614 TD: 0-1 ft
RE39-17-139832 0-1 ft SOIL
Acenaphthene 0.0135 (J)
Anthracene 0.0251 (J)
Benzo(a)anthracene 0.091
Benzo(a)pyrene 0.111
Benzo(b)fluoranthene 0.122
Benzo(g,h,i)perylene 0.088
Benzo(k)fluoranthene 0.0538
Chrysene 0.108
Dibenz(a,h)anthracene 0.0266 (J)
Fluoranthene 0.209
Fluorene 0.0109 (J)
Indeno(1,2,3-cd)pyrene 0.104
Phenanthrene 0.154
Pyrene 0.227

39-61632 TD: 1-2 ft
RE39-17-139850 1-2 ft SOIL
Fluoranthene 0.0122 (J)

39-61633 TD: 1-2 ft

39-61615 TD: 0-1 ft
RE39-17-139833 0-1 ft SOIL
Acenaphthene 0.0357 (J)
Anthracene 0.0637
Benzo(a)anthracene 0.14
Benzo(a)pyrene 0.138
Benzo(b)fluoranthene 0.156
Benzo(g,h,i)perylene 0.119
Benzo(k)fluoranthene 0.0644
Chrysene 0.146
Dibenz(a,h)anthracene 0.032 (J)
Fluoranthene 0.291
Fluorene 0.0398
Indeno(1,2,3-cd)pyrene 0.126
Naphthalene 0.045
Phenanthrene 0.33
Pyrene 0.346

39-61616 TD: 0-1 ft
RE39-17-139834 0-1 ft SOIL
Acenaphthene 0.0244 (J)
Anthracene 0.0584 (J)
Benzo(a)anthracene 0.149
Benzo(a)pyrene 0.138
Benzo(b)fluoranthene 0.176
Benzo(g,h,i)perylene 0.115
Benzo(k)fluoranthene 0.0672
Bis(2-ethylhexyl)phthalate 0.0507 (J)
Chrysene 0.154
Diethylphthalate 0.0308 (J)
Fluoranthene 0.418
Fluorene 0.026 (J)
Indeno(1,2,3-cd)pyrene 0.0981
Phenanthrene 0.308
Pyrene 0.353

39-61617 TD: 0-1 ft
RE39-17-139835 0-1 ft SOIL
Anthracene 0.0129 (J)
Benzo(a)anthracene 0.0474
Benzo(a)pyrene 0.0482
Benzo(b)fluoranthene 0.0629
Benzo(g,h,i)perylene 0.0459
Benzo(k)fluoranthene 0.0239 (J)
Chrysene 0.0493
Fluoranthene 0.105
Indeno(1,2,3-cd)pyrene 0.0421
Phenanthrene 0.0762
Pyrene 0.125

39-61618 TD: 0-1 ft
RE39-17-139836 0-1 ft SOIL
Anthracene 0.0135 (J)
Benzo(a)anthracene 0.0404
Benzo(a)pyrene 0.0415
Benzo(b)fluoranthene 0.0511
Benzo(g,h,i)perylene 0.04
Benzo(k)fluoranthene 0.0208 (J)
Chrysene 0.0485
Fluoranthene 0.0846
Indeno(1,2,3-cd)pyrene 0.0308 (J)
Phenanthrene 0.0734
Pyrene 0.104

39-61619 TD: 0-1 ft
RE39-17-139837 0-1 ft SOIL
Acenaphthene 0.0271 (J)
Anthracene 0.0466
Benzo(a)anthracene 0.122
Benzo(a)pyrene 0.144
Benzo(b)fluoranthene 0.158
Benzo(g,h,i)perylene 0.104
Benzo(k)fluoranthene 0.0718
Chrysene 0.133
Dibenz(a,h)anthracene 0.0248 (J)
Fluoranthene 0.296
Fluorene 0.0306 (J)
Indeno(1,2,3-cd)pyrene 0.111
Naphthalene 0.0168 (J)
Phenanthrene 0.285
Pyrene 0.319

39-61620 TD: 0-1 ft
RE39-17-139838 0-1 ft SOIL
Acenaphthene 0.0233 (J)
Anthracene 0.0402
Benzo(a)anthracene 0.088
Benzo(a)pyrene 0.0896
Benzo(b)fluoranthene 0.123
Benzo(g,h,i)perylene 0.0593
Benzo(k)fluoranthene 0.0498
Chrysene 0.105
Dibenz(a,h)anthracene 0.0379 (J)
Fluoranthene 0.26
Fluorene 0.0237 (J)
Indeno(1,2,3-cd)pyrene 0.0589
Naphthalene 0.021 (J)
Phenanthrene 0.226
Pyrene 0.193

39-61634 TD: 1-2 ft
RE39-17-139852 1-2 ft SOIL
Benzo(a)anthracene 0.023 (J)
Benzo(a)pyrene 0.0179 (J)
Benzo(b)fluoranthene 0.0213 (J)
Benzo(g,h,i)perylene 0.0124 (J)
Chrysene 0.0193 (J)
Fluoranthene 0.0547
Indeno(1,2,3-cd)pyrene 0.0124 (J)
Phenanthrene 0.0385
Pyrene 0.0481

39-61637 TD: 1-2 ft

39-61621 TD: 0-1 ft

39-61635 TD: 1-2 ft

39-61636 TD: 1-2 ft

39-61622 TD: 0-1 ft
RE39-17-139840 0-1 ft SOIL
Fluoranthene 0.0373 (J)
Phenanthrene 0.0247 (J)
Pyrene 0.0323 (J)

39-61623 TD: 0-1 ft
RE39-17-139841 0-1 ft SOIL
Benzo(b)fluoranthene 0.0165 (J)
Fluoranthene 0.0189 (J)
Phenanthrene 0.0131 (J)
Pyrene 0.0177 (J)

39-61624 TD: 0-1 ft
RE39-17-139842 0-1 ft SOIL
Benzo(a)anthracene 0.0213 (J)
Chrysene 0.0177 (J)
Fluoranthene 0.0341 (J)
Phenanthrene 0.0257 (J)
Pyrene 0.0381 (J)

39-61625 TD: 0-1 ft
RE39-17-139843 0-1 ft SOIL
Acenaphthene 0.12
Anthracene 0.182
Benzo(a)anthracene 0.551
Benzo(a)pyrene 0.632
Benzo(b)fluoranthene 0.837
Benzo(g,h,i)perylene 0.317
Benzo(k)fluoranthene 0.315
Chrysene 0.621
Fluoranthene 1.33
Fluorene 0.106
Indeno(1,2,3-cd)pyrene 0.327
Methylnaphthalene[2-] 0.0228 (J)
Naphthalene 0.0746
Phenanthrene 1.15
Pyrene 1.8

39-61626 TD: 0-1 ft
RE39-17-139844 0-1 ft SOIL
Anthracene 0.0274 (J)
Benzo(a)anthracene 0.105
Benzo(a)pyrene 0.134
Benzo(b)fluoranthene 0.183
Benzo(g,h,i)perylene 0.0857
Benzo(k)fluoranthene 0.0552
Chrysene 0.139
Fluoranthene 0.23
Fluorene 0.012 (J)
Indeno(1,2,3-cd)pyrene 0.0837
Phenanthrene 0.171
Pyrene 0.286

39-61627 TD: 0-1 ft

39-61628 TD: 0-1 ft

39-61650 TD: 1-2 ft

39-61629 TD: 0-1 ft
RE39-17-139847 0-1 ft SOIL
Benzo(a)anthracene 0.0277 (J)
Benzo(a)pyrene 0.0292 (J)
Benzo(b)fluoranthene 0.0451
Benzo(g,h,i)perylene 0.0159 (J)
Benzo(k)fluoranthene 0.0136 (J)
Bis(2-ethylhexyl)phthalate 0.489
Chrysene 0.0235 (J)
Fluoranthene 0.0583
Indeno(1,2,3-cd)pyrene 0.0159 (J)
Phenanthrene 0.033 (J)
Pyrene 0.0659

39-61630 TD: 0-1 ft
RE39-17-139848 0-1 ft SOIL
Benzo(a)anthracene 0.0369 (J)
Benzo(a)pyrene 0.0376 (J)
Benzo(b)fluoranthene 0.0624
Benzo(k)fluoranthene 0.03 (J)
Chrysene 0.0388
Fluoranthene 0.0669
Indeno(1,2,3-cd)pyrene 0.0278 (J)
Phenanthrene 0.0494
Pyrene 0.097

39-61649 TD: 1-2 ft
RE39-17-143182 1-2 ft SOIL
Benzo(a)anthracene 0.0117 (J)
Benzo(b)fluoranthene 0.0131 (J)
Benzoic Acid 0.537 (J)
Fluoranthene 0.0237 (J)
Pentachlorophenol 0.221 (J)
Phenanthrene 0.0156 (J)
Pyrene 0.0226 (J)

39-61578 TD: 0-1 ft
RE39-17-139796 0-1 ft SOIL
Fluoranthene 0.0612 (J)
Phenanthrene 0.046 (J)
Pyrene 0.0529 (J)

SWMU 39-001(b)

Access Road

0 5 10 20 30 40 Feet

State Plane Coordinate System
New Mexico, Central Zone, US Survey Feet
North American Datum 1983

Cartography by: Adelante Consulting, Inc.
Revised: 17 October 2017 D.Frank
Map# 10-0100-26B

All units are mg/kg

Disclaimer: This map was created for work processes associated with the LANL Environmental Programs Directorate, Environmental Remediation Program (EM-ER). All other uses for this map should be confirmed wit h EM-ER personnel

- Sampling location
- Paved road
- Communication line
- Electric line
- Decision unit with PCBs > 1 mg/kg
- Decision unit sampling grid
- SWMU 39-001(a)
- Waste stockpile
- Area of contamination
- Excavation boundary
- Index contour, 5-ft interval
- Terrain contour, 1-ft interval

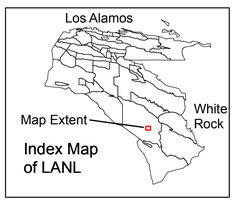


Plate 3
SVOCs detected at the former waste stockpile area at SWMU 39-001(b)

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