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SEP 30 2014

NMED  
Hazardous Waste Bureau



*National Nuclear Security Administration*  
Los Alamos Field Office, MS A316  
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Los Alamos, New Mexico 87544  
(505) 667-4255/FAX (505) 606-2132

Date: **SEP 30 2014**  
Refer To: EP2014-0462

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

**Subject: Request for Certificate of Completion with Controls for One Solid Waste Management Unit in the Pueblo Canyon Aggregate Area**

Dear Mr. Kieling:

In accordance with Section VII.E.6.b of the Compliance Order on Consent (the Consent Order), the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (LANS) are requesting a certificate of completion with controls for the following solid waste management unit (SWMU) within the Pueblo Canyon Aggregate Area:

- SWMU 01-002(b)-00, Outfall and Drainage Area

**SWMU 01-002(b)-00** consists of a former radioactive liquid waste outfall in the South Fork of Acid Canyon and the canyon drainage area below the outfall. SWMU 01-002(b)-00 is part of Consolidated Unit 45-001-00, which also includes SWMUs 45-001, 45-002, 45-003, and 45-004 and Area of Concern (AOC) C-45-001. The Pueblo Canyon Aggregate Area Investigation Work Plan (LA-UR-05-2366/ER2005-0119) evaluated historical environmental investigation data for the SWMUs and AOC comprising Consolidated Unit 45-001-00 to identify additional data needed to define the nature and extent of contamination. The data evaluated for SWMU 01-002(b)-00 included analytical results from samples collected as part of an interim action in the South Fork of Acid Canyon and from samples collected during the Consent Order investigation of Los Alamos and Pueblo Canyons. The data evaluation in the investigation work plan concluded that the nature and extent of contamination were defined for SWMU 01-002(b)-00 and that no additional sampling was necessary at this site as part of the Pueblo Canyon Aggregate Area investigation. The investigation work plan proposed no additional sampling for SWMU 01-002(b)-00 and was approved in the New Mexico Environment Department's (NMED's) Approval with Modifications [for the] Pueblo Canyon Aggregate Area Investigation Work Plan (HWB-LANL-05-006), dated September 23, 2005.



Acid Canyon is a tributary to Pueblo Canyon that originates in the Los Alamos townsite. Acid Canyon reach ACS consists of the South Fork Acid Canyon drainage from the head of this drainage to the confluence with Acid Canyon. Acid Canyon reach AC-3 consists of the main branch of Acid Canyon from the South Fork confluence to the confluence with Pueblo Canyon. Together, reaches ACS and AC-3 comprise the SWMU 01-002(b)-00 drainage area. Figure 2.15-1 of the investigation work plan (Attachment 1 to this request) shows the boundary of SWMU 01-002(b)-00 and reaches ACS and AC-3 and the locations of the historical samples evaluated in the investigation work plan. Sampling locations at the upper end of reach ACS, including the outfall area, were evaluated in the investigation work plan as part of the other four sites comprising Consolidated Unit 45-001-00 rather than as part of SWMU 01-002(b)-00 (see Attachment 2, Figure 2.15-5 of the work plan). The data set evaluated in the investigation work plan for SWMU 01-002(b)-00 is the same data set presented for reaches ACS and AC-3 in the Los Alamos and Pueblo Canyons Investigation Report (LAPCIR) (LA-UR-04-2714/ER2004-0027) and the Los Alamos and Pueblo Canyons Supplemental Investigation Report (LA-UR-05-9230/ER2005-0893) (the supplemental report). The LAPCIR demonstrated that no unacceptable human health risk or dose was associated with the trail user and extended backyard recreational scenarios for reaches ACS and AC-3 and no unacceptable risk to ecological receptors exists. The LAPCIR was approved in NMED's Approval as Modified [for the] Los Alamos and Pueblo Canyons Investigation Report (HWB-LANL-04-006), dated May 11, 2005. This approval letter required Los Alamos National Laboratory (the Laboratory) to submit a supplemental report that incorporated revisions identified by NMED to the human health risk-screening approach. The revised human health risk-screening evaluation in the supplemental report also demonstrated that no unacceptable human health risk or dose was associated with the trail user and extended backyard recreational scenarios for reaches ACS and AC-3. The supplemental report was approved in NMED's Approval with Direction [for the] Los Alamos and Pueblo Canyons Supplemental Investigation (HWB-LANL-06-014), dated August 30, 2007.

The LAPCIR and supplemental report evaluated recreational human health risk scenarios (trail user and extended backyard) because recreational land use is the current and reasonably foreseeable land use for reaches ACS and AC-3 [SWMU 01-002(b)-00]. The LAPCIR and supplemental report also evaluated the residential scenario for all reaches, as required by the Consent Order. This evaluation showed that risk and dose targets for residential land use were exceeded for reaches ACS and AC-3. Because the site is not suitable for construction of residential or other structures, the risk evaluations did not include the vapor-intrusion pathway.

SWMU 01-002(b)-00 is situated within property that is owned and managed by Los Alamos County (the County). The use of all properties within the County, municipal as well as private, is subject to a Code of Ordinances that includes specific land use zoning requirements and restrictions. Los Alamos Code of Ordinances, Part II, Chapter 16, Article XIII, Section 16-533, is available at [https://library.municode.com/HTML/13397/level3/PTIICOOR\\_CH16DECO\\_ARTXIIIIZODIES.html](https://library.municode.com/HTML/13397/level3/PTIICOOR_CH16DECO_ARTXIIIIZODIES.html). Los Alamos County has established and adheres to a formal permit application and approval process for regulating and enforcing land use within the County. The process is administered by the Community and Economic Development Department's Planning and Zoning Commission and Board of Adjustment through the Interdepartmental Review Committee (IDRC). Detailed information regarding the Community and Economic Development Department organization, jurisdiction, and processes is available at the following website: <https://www.losalamosnm.us/cdd/Pages/default.aspx>.

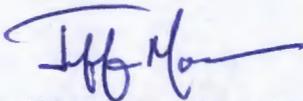
The land use zoning designation for the Los Alamos County property encompassing SWMU 01-002(b)-00 precludes residential land use. The Los Alamos County Townsite Zoning Map indicates the property is currently zoned as Scenic Open Lands District (W-1) ([https://www.losalamosnm.us/gis/Documents/Zone\\_TS76x36.pdf](https://www.losalamosnm.us/gis/Documents/Zone_TS76x36.pdf)). The W-1 scenic open lands district designation is intended to maintain, protect, and preserve the scenic and environmental quality, open character, and the natural recreational value of undeveloped land (Los Alamos Code of Ordinances, Part II, Chapter 16, Article XIII, Section 16-533). Furthermore, SWMU 01-002(b)-00 is situated in a steep drainage that could not, in the current condition, be used for residential purposes. Any modification of the site to make it suitable for residential or other development and allow a change in land use would involve DOE and LANS through the IDRC review and approval process.

Subject matter experts, including representatives from DOE and LANS, attend monthly IDRC meetings and participate in the review of proposed projects and activities submitted to the IDRC for approval. This process ensures that stakeholders' and experts' comments are considered before changes in land-use zoning designations occur. DOE and LANS's role in the IDRC is associated primarily with area within or near SWMUs and AOCs on property formerly owned by DOE and its predecessor agencies, including SWMU 01-002(b)-99. DOE and LANS reviews and comments are documented and managed as part of the IDRC administrative record.

As demonstrated by the approved investigation work plan, the LAPCIR, and the supplemental report, the nature and extent of contamination have been defined for SWMU 01-002(b)-00, the site poses no unacceptable human health risk or dose under recreational land use, and the site poses no unacceptable risk to ecological receptors. Because recreational use is the current and reasonably foreseeable land use within and surrounding SWMU 01-002(b)-00, DOE and LANS request a certificate of completion with controls for this SWMU. The current IDRC process that DOE and LANS will continue to use to review any future proposed changes to land-use zoning designations for property encompassing this SWMU will serve as the control for this site to ensure the land use remains protective of human health and the environment. As part of this process, DOE and LANS will inform Los Alamos County if proposed land use changes could potentially result in unacceptable human health risk.

If you have any questions, please contact Todd Haagenstad at (505) 665-2936 ([hth@lanl.gov](mailto:hth@lanl.gov)) or Cheryl Rodriguez at (505) 665-5330 ([cheryl.rodriguez@nnsa.doe.gov](mailto:cheryl.rodriguez@nnsa.doe.gov)).

Sincerely,



Jeff Mousseau, Associate Director  
Environmental Programs  
Los Alamos National Laboratory

Sincerely,



Peter Maggiore, Assistant Manager  
Environmental Projects Office  
Los Alamos Field Office

JM/PM/DM/TH:sm

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Kimberly Davis Lebak, DOE-NA-LA (date-stamped letter emailed)  
Deb Woitte, LC-ESH (date-stamped letter emailed)  
Katie Roberts, EP-REG (date-stamped letter emailed)  
Steve Veenis, EP-CAP (date-stamped letter emailed)  
Todd Haagenstad, EP-CAP (date-stamped letter emailed)  
Dave McInroy, EP-CAP (date-stamped letter emailed)  
Jeff Mousseau, ADEP (date-stamped letter emailed)  
PRS Database with ER ID  
Public Reading Room (EPRR)  
RPF (electronic copy)

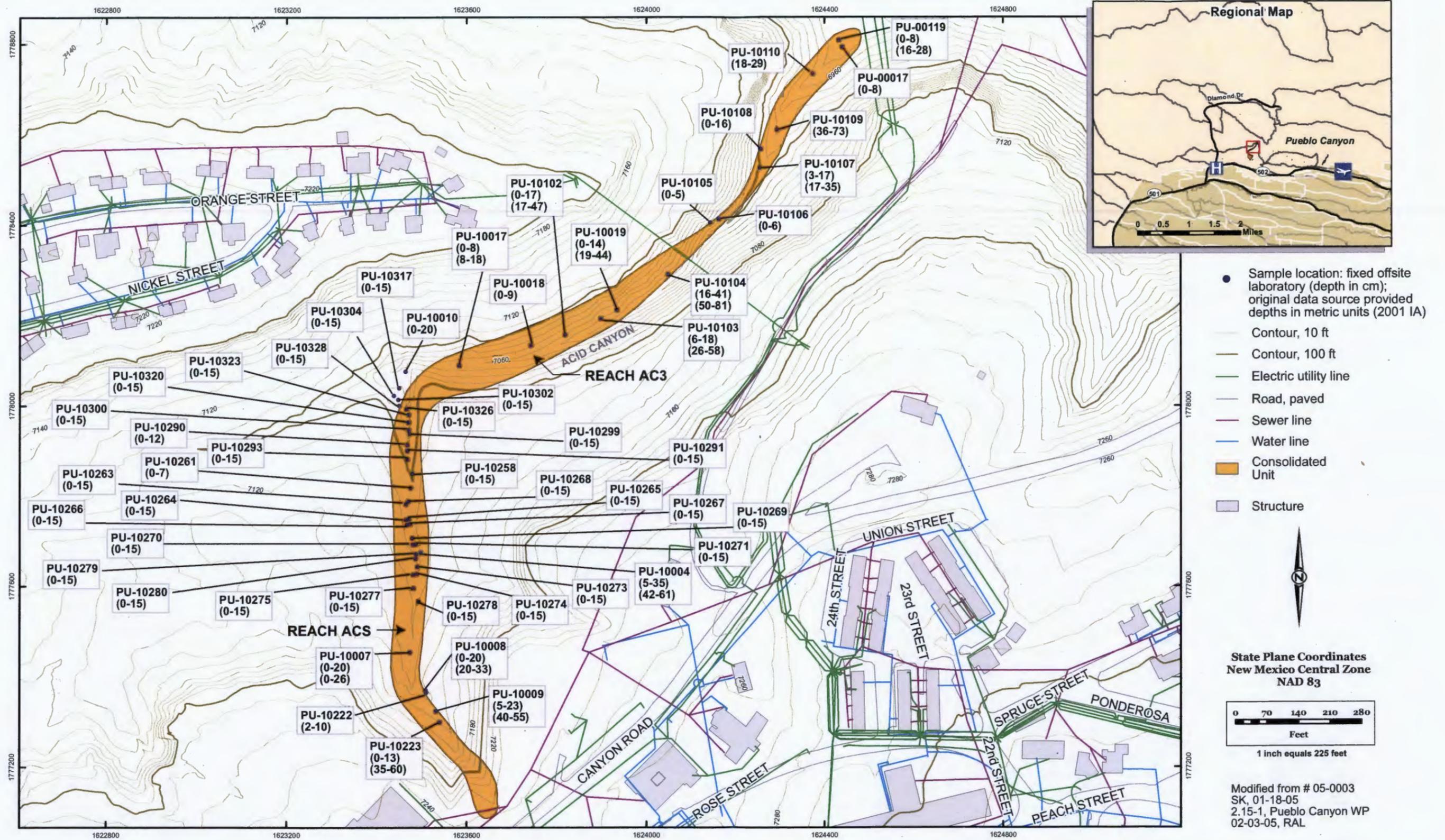


Figure 2.15-1. Consolidated Unit 01-002(b)-00 historical sampling locations and depths

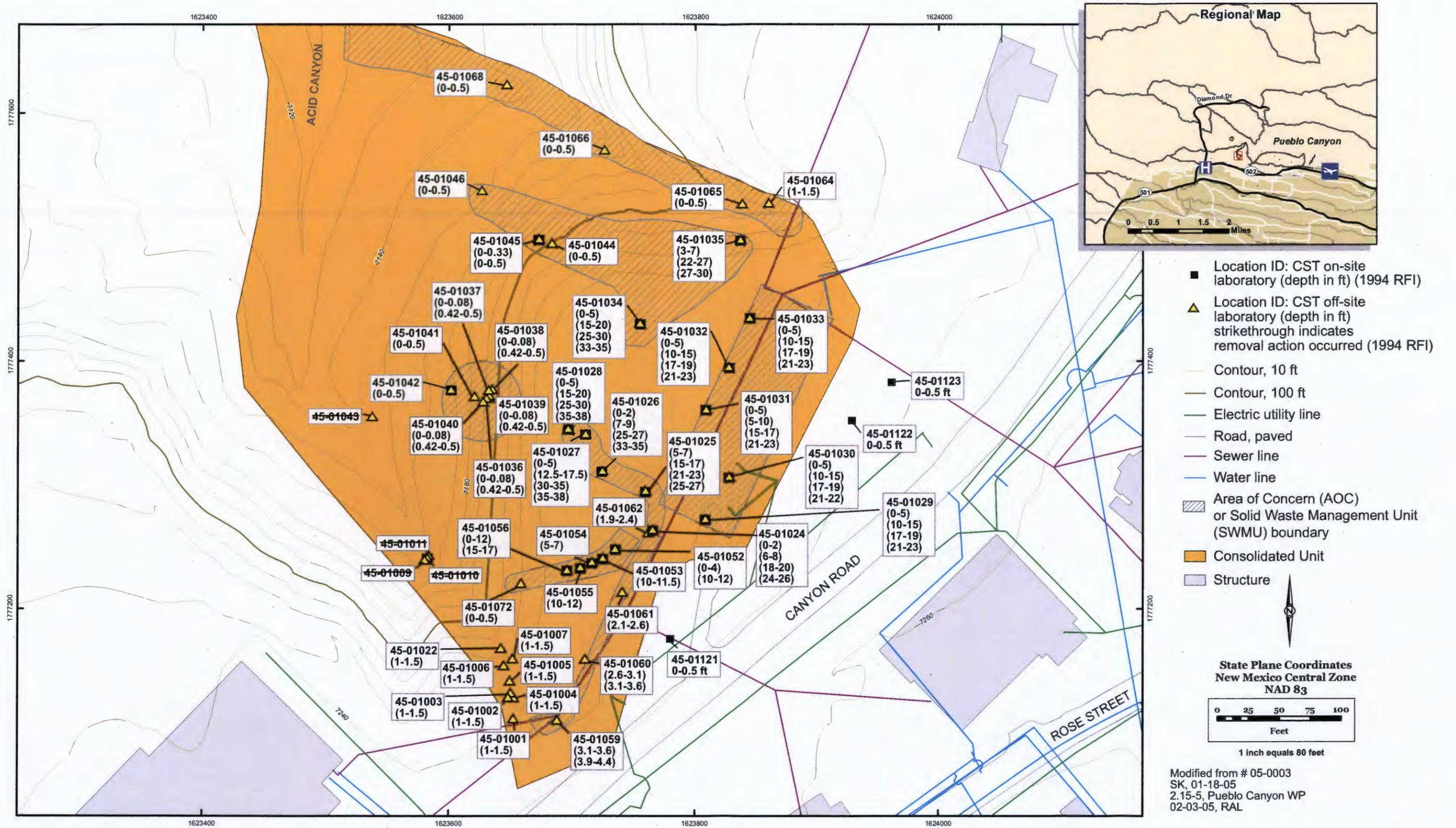


Figure 2.15-5. Consolidated Unit 45-001-00 historical sampling locations [excluding Consolidated Unit 01-002(b)-00] and depths