HZ/RC/TE

Environmental Restoration
University of California
Environmental Science and Waste Technology (E)
Environmental Restoration, MS M992
Los Alamos, New Mexico 87545
505-667-0808/FAX 505-665-4747

U.S. Department of Energy
Los Alamos Area Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
505-667-7203/FAX 505-665-4504

1915
TA-14

Date: May 29, 2001
Refer to: ER2001-0409

Rec'd
JUN 5 2001

Mr. Rex Borders
Department of Energy
Albuquerque Area Office, ESH-D
P.O. Box 5400
Albuquerque, NM 87185

SUBJECT: RELEASE OF REAL PROPERTY

Dear Mr. Borders:

This letter is to thank you for your comments and to formally request the release of real property in accordance with Department of Energy (DOE) Order 5400.5, Radiation Protection of the Public and the Environment. Potential Release Site (PRS) 14-003 has been evaluated in accordance with the aforementioned DOE Order and we believe that no further action is required at site PRS 14-003 (Open Burning Ground).

Should you require additional information, please contact me at (505) 667-0819.

Sincerely,

Julie A. Canepa, Program Manager
Environmental Restoration Project
Los Alamos National Laboratory

Sincerely,

Theodore J. Taylor, Project Manager
Department of Energy
Los Alamos Area Office

JC/TT/JP/ev

Enclosure: PRS 14-003 Open Burning Ground

Cy (w/enc.):
J. Canepa, E/ER, MS M992
M. Kirsch, E/ER, MS M992
D. McInroy, E/ER, MS M992
D. Neleigh, US EPA (2 copies)
J. Pope, E/ER, MS M992
T. Taylor, LAAO, MS A316
G. Turner, LAAO, MS A316
E/ER File, MS M992
RPF, MS M707

3880

PRS Number 14-003 Open burning ground

HSWA SWMU	*Yes*	*Former Operable Unit:*	*1085*
Technical Area:	*14*	*Workoff Decision*	*8/30/99*
Sampled?:	*Yes*	*Remedial Action Conducted?*	*Yes*
Radiological Component?:	*Yes*	*ConsolidationUnit:*	*N/A*

NFA Criteria *5* The site was characterized or remediated in accordance with applicable state/and or federal regulations, and the available data indicate that contaminants pose an acceptable level of risk under current and projected future land use.

Statement of Basis:

Potenial release site (PRS) 14-003 was a burn area located near the southeastern corner of TA-1, approximately 300 ft northeast of storage building 14-5, at the end of an abandoned asphalt-paved road. The burn area, used for burning HE-contaminated debris remaining from experimental test shots, consisted of a level 5-ft by 20-ft grass-covered area, enclosed on its south, north, and west sides by a 3-ft-high, horseshoe-shaped dirt berm. The burn area began operation 1951 and ceased operation sometime in the 1960s. The site was used for burning combustible HE-contaminated debris and for flash-burning noncombustible HE-contaminated debris that resulted from experimental test shots. The debris burned in this area may have included barium, lead, uranium, and other contaminants typically present in debris from test shots (LA-UR-94-1033).

The ER Project conducted a RCRA facility investigation (RFI) at this PRS in 1995 (LA-UR-96-0511). Two samples were collected at 6-in. to 12-in. intervals within the bermed area to determine if any of the suspected contaminants were present. Sample results indicated both inorganics and uranium were present at levels exceeding LANL background values for these constituents. The site was subsequently selected for a voluntary corrective action (VCA) because the remedy was obvious and final.

The ER Project implemented a VCA at this PRS in April 1997 (LA-UR-97-3870). VCA activities included additional sampling and field screening to further define the extent of contamination, removal of contaminated soil within the bermed area, and collecting confirmatory samples to verify that clean up goals were met. Field screening methods used at this site included Laser-Induced Breakdown Spectroscopy, field testing for high explosives, and radiological field screening using an Eberline pancake probe. These field screening data were used to guide the soil removal (both horizontal and vertical excavation). Two hundred thirty eight field screening samples were collected during the VCA. After soil removal (19 cubic yards of soil total), fifteen confirmatory samples, including three duplicates, were collected and submitted to a fixed analytical laboratory for analysis. Upon data analysis and reporting, the site was subsequently proposed for no further action (LA-UR-97-3984).

Final Radiological Condition:

Two samples were collected at PRS 14-003 from 6-12 in. during the RFI in 1995. The analytical results reported the presence of radioactive contamination in the samples. This contamination consisted of concentrations of uranium-235 and uranium-238 above background (LA-UR-98-4847). These concentrations were below the screening action levels (SALs) of 10 pCi/g and 67 pCi/g.

Dose Assessment for the Site:

Following soil removal from the burn area as part of the VCA conducted in 1997 confirmatory samples were collected. These samples were analyzed for inorganic chemicals, high explosives, and total uranium. Uranium was detected in all of the confirmatory samples at concentrations below the background value of 5.4 mg/kg (LA-UR-98-4847). Although isotopic uranium was not analyzed for, the confirmatory sample data indicate that uranium-234, uranium-235, and uranium-238 were below their respective background levels of 2.59 pCi/g, 0.2 pCi/g, and 2.29 pCi/g. The background values for isotopic uranium correspond to doses of approximately 2.0 mrem/yr., 0.2 mrem/yr., and 0.34 mrem/yr., respectively. Based on these levels, the total dose from isotopic uranium at this PRS was approximately 2.5 mrem/yr. or less.

ALARA Analysis:

The individual doses as well as the total dose of 2.5 mrem/yr. are less than the Base Dose Limit of 100 mrem/yr (all sources, all pathways) as stated in DOE Order 5400.5, Radiation Protection of the Public and the Environment. They are also below the Albuquerque Operations Office (ALOO) Authorized Release Limit of 15 mrem/yr. used to permit the unrestricted release of real property. By using conservative RESRAD default values, a residential exposure scenario, and an ALOO target dose limit of 15 mrem/yr. (vs. 25 mrem/yr. per Nuclear Regulatory Commission standard), ALARA (as low as reasonably achievable) goals have been met. In addition, uranium was remediated to levels similar to or below Laboratory-wide background concentrations and no further action need be considered to satify ALARA. Further excavation and soil removal would not result in any significant reduction in potential dose from this site.

References:

RFI Work Plan for OU 1085

LAUR Number: *94-1033*

Author Organization: *Los Alamos National Laboratory*

Date Published: *12/22/94*

RFI Report for Potential Release Sites at TA-14 and TA-12/ 67	***LAUR Number:***	*96-0511*
	Author Organization:	*Los Alamos National Laboratory*
	Date Published:	2/1/96
Final Voluntary Corrective Action Plan TA 14: PRS 14-003	***LAUR Number:***	*96-3984*
	Author Organization:	*Los Alamos National Laboratory*
	Date Published:	11/18/96
Voluntary Corrective Action Completion Report for Potential Release Site 14-003	***LAUR Number:***	*97-3870*
	Author Organization:	*Los Alamos National Laboratory*
	Date Published:	9/29/97
Inorganic and Radionuclide Background Data for Soils, Sediments, and Bandelier Tuff at Los Alamos National Laboratory (Draft)	***LAUR Number:***	*98-4847*
	Author Organization:	*Los Alamos National Laboratory*
	Date Published:	9/22/98
Documentation of Human Health and Ecological Risk Assessment and Other Applicable Regulations and Standards for 33 NFA Proposals (Functional Area A.1.2 Performance Measure)	***LAUR Number:***	*None*
	Author Organization:	*Los Alamos National Laboratory*
	Date Published:	8/30/99

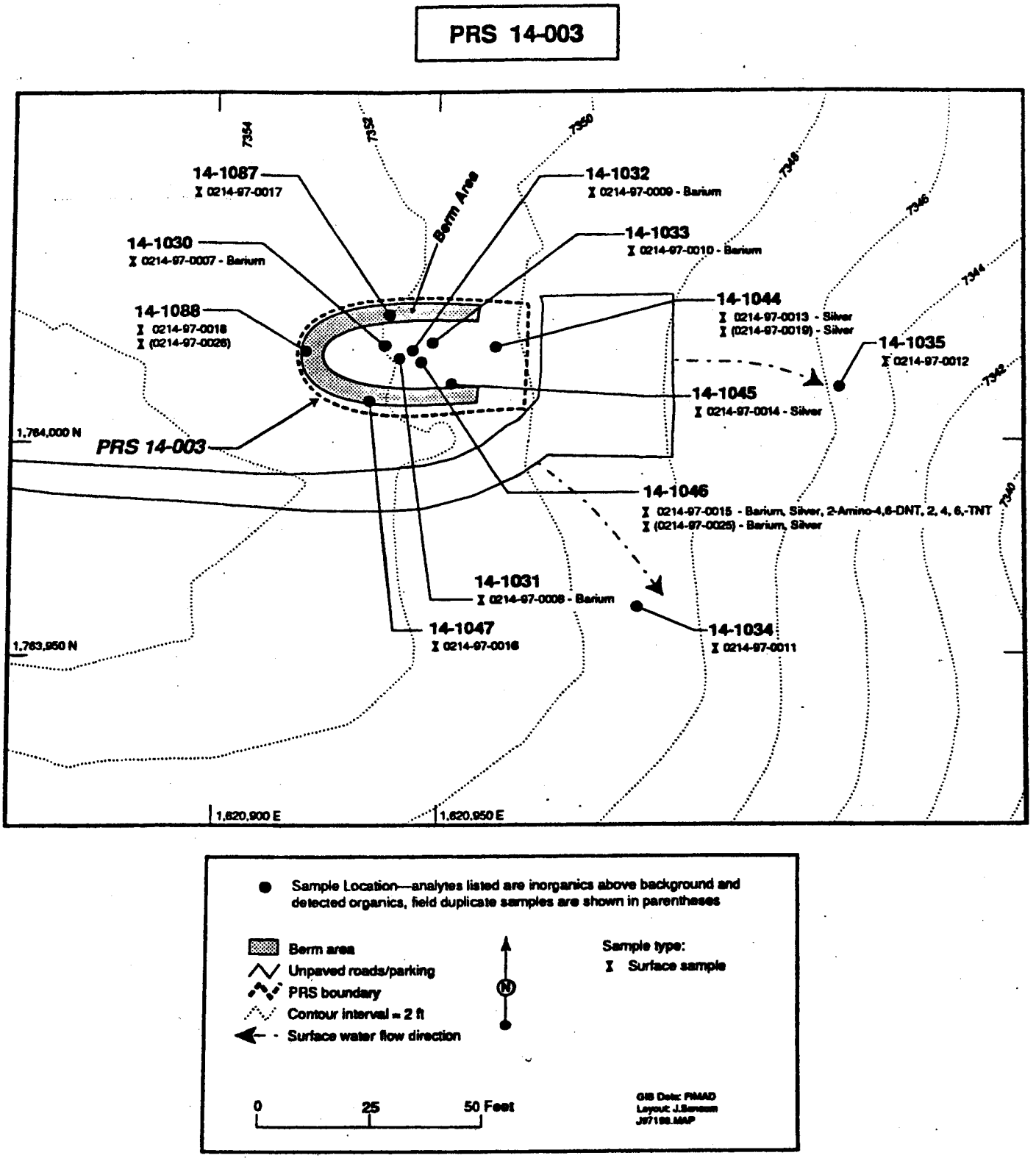

Figure 3.2-2 PRS 14-003, Site map of sample locations with detected analytes