Permit

Los Alamos
NATIONAL LABORATORY
EST. 1943

Environmental Programs
P.O. Box 1663, Mail Stop J591
Los Alamos, New Mexico 87545
(505) 606-2337/FAX (505) 665-1812

National Nuclear Security Administration
Los Alamos Site Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
(505) 667-4255/FAX (505) 667-5948

Date: April 23, 2007
Refer To: EP2007-0235

Mr. James Bearzi
NMED-Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Request for Reconsideration: New Mexico Environment Department Disapproval of Class 3 Modification Requests Based on No Further Action for Five Solid Waste Management Units and Areas of Concern

Dear Mr. Bearzi:

This letter responds to the New Mexico Environment Department's (NMED's) letter dated March 23, 2007, approving a Class 3 permit modification request previously submitted by the U.S. Department of Energy and the Los Alamos National Security, LLC (Permittees) to the Los Alamos National Laboratory (LANL) Resource Conservation and Recovery Act (RCRA) Permit No. NM0890100515. In this letter, NMED stated that it will not approve "No Further Action" (NFA) status for the following five (5) solid waste management units (SWMUs) and areas of concern (AOCs): SWMUs 21-013(d), 21-013(e), 21-024(f), and AOCs C-21-015 and 21-030. The basis for this denial is that Permittees have not "adequately demonstrated compliance with *New Mexico Standards for Interstate and Intrastate Surface Waters* (20.6.4 New Mexico Administrative Code [NMAC]) and Water Quality Control Commission (WQCC) Ground and Surface Water Protection Regulations (20.6.2 NMAC) as required by Section VIII.C of the March 1, 2005, Compliance Order on Consent." Further, NMED states

> "although these sites do not pose an unacceptable risk to human health and the environment based on the investigation results, the Permittees must make such a demonstration for these sites to be considered for NFA."

The purpose of this letter is to respectfully request that NMED reconsider the NFA denials for the above SWMUs and AOCs based on the following information. Permittees have evaluated these SWMUs and AOCs and can demonstrate compliance with the *New Mexico Standards for Interstate and Intrastate Surface Waters* and WQCC Ground and Surface Water Protection Regulations. This demonstration is based on evidence that these specific SWMUs and AOCs do not discharge, or cause a discharge, of contaminants to surface waters of the state or ground water under WQCC

regulations. Because there is no discharge, the water quality standards referenced in Section VIII.C of the Consent Order are not applicable to these SWMUs and AOCs.

New Mexico Standards for Interstate and Intrastate Surface Waters apply only to waters that "discharge" to a "surface water of the state" or cause a water to "enter a surface water of the state" (Section 20.6.4.11, NMAC). Section 20.6.4.7 CCC of these standards define "surface water(s) of the state" to mean "all surface waters situated wholly or partly within or bordering upon the state, including lakes, rivers, streams (including intermittent streams) . . . ." In addition, the WQCC Ground and Surface Water Protection Regulations apply to "discharges" of contaminants (20.6.2.7.ZZ NMAC). We have attached supporting documentation, including surface water site assessments and field documents, to demonstrate that these SWMUs and AOCs do not discharge or cause a discharge of contaminants into a surface water of the state or ground water.

The enclosed attachment provides brief descriptions of these sites, including the site history and copies of the results of the surface water site assessments (SWSAs) conducted to determine whether there are discharges from the sites.

We appreciate the opportunity to address NMED's concerns as they apply to the protection of New Mexico's surface waters. In the future, LANL will ensure that all relevant information is included in NFA proposals to better facilitate NMED's technical decisions. Should you have any questions, please feel free to contact Gene Turner (667-5794) or Dave McInroy (667-0819).

Sincerely,

Carolyn A. Mangeng, Acting Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,

George J. Rael, Assistant Manager
Department of Energy
Los Alamos Site Office

Attachment: 1) Brief Site Descriptions

CAM/GJR/DM:ew

Cy:
Laurie King, EPA Region 6, Dallas, TX
George J. Rael, DOE-LASO, MS A316
David Gregory, DOE LASO, MS A316 (with attachment)
Gene Turner, DOE-LASO, MS A316
Tom Skibitski, NMED OB, Santa Fe
Susan McMichael, LC-LES&H, MS A187 (with attachment)
Peggy Reneau, EP-ERSS, MS M992
Carolyn Mangeng, ADEP, MS J591
Alison M. Dorries, EP-ERSS, MS M992
Gordon Dover, EP-CAP, MS M992
Dave McInroy, EP-CAP, MS M992
EP-CAP File, MS M992
RPF, MS M707 (with attachment)
Public Reading Room, MS M992 (with attachment)
ADEP File, MS J591
IRM-RMMSO, MS A150

Attachment
Brief Site Descriptions

Consolidated Unit 21-013(d)-99 [SWMUs 21-013(d) and 21-013(e)]

Unit Description and History

Consolidated Unit 21-013(d)-99 consists of SWMUs 21-013(d) and 21-013(e), two former surface disposal areas. SWMU 21-013(d) is a former disposal site used by construction contractors for the disposal of construction-related debris. The site is referred to as the "cold dump." SWMU 21-013(e) is a former disposal site for building debris, including concrete, demolished building foundations, fill, and asphalt.

LANL conducted a RCRA facility investigation (RFI) at the SWMU 21-013(d) and 21-013(e) surface disposal areas in 1994 to confirm the presence or absence of contamination. The Phase I RFI was conducted simultaneously for both SWMUs. LANL conducted voluntary corrective actions (VCAs) at these sites in 1995. Exploratory trenches were dug into soil piles to allow for field screening and visual inspection. All debris was removed from the piles, and the piles were subsequently recontoured. Piles that contained no debris, were not recontoured. The asphalt, concrete, and remainder of debris were removed. Confirmation sampling was conducted to verify site cleanup. Two samples were collected from each removal area. The sites were restored and reseeded with native grasses.

Because the parcel of land containing Consolidated Unit 21-013(d)-99 was slated for transfer to Los Alamos County, LANL determined that additional VCA activities should be conducted. In 2003, NMED approved the VCA plan to determine the nature and extent of residual contamination at Consolidated Unit 21-013(d)-99. In September 2003, the VCA completion report addendum, which recommended NFA for Consolidated Unit 21-013(d)-99, was submitted to NMED. NMED approved the VCA completion report addendum on January 18, 2005, and concurred that no further corrective action was necessary at these sites. A determination of "Corrective Action Complete" under the Consent Order was issued by the New Mexico Hazardous Waste Bureau for these sites on September 30, 2005.

Impact to Surface Waters and Ground Water

In 2007, LANL conducted a SWSA for each SWMU in Consolidated Unit 21-013(d)-99. SWSAs are based on Standard Operating Procedure (SOP) 2.01, "Surface Water Site Assessment," and involve review of the site setting, runoff factors, and run-on factors. A termination point is used to determine if runoff from a site has the potential to terminate at one of the following: (1) a well-defined drainage or wetland, (2) within a bench or sub-mesa top, or (3) into other areas, such as a meadow, retention areas, or a mesa top. If runoff causes visible erosion at the SWMU, then the following three choices are provided to describe the erosion in increasing order of concern: (1) sheet erosion, (2) rill erosion, or (3) gully erosion (the matrix criteria imposes a heavier weight to more

severe types of visible erosion). The absence of visible erosion indicates minimal potential for sediment transport and corresponding impact on surface waters. Sites that score less than 40 have minimal erosion potential and are considered a low priority with respect to surface water impacts. Many low-priority sites are considered "no discharge" sites under LANL's 2005 Storm Water Pollution Prevention Plan (pp. 3-5, 3-7).

Based on the SWSA criteria, the 2007 inspection determined that this consolidated unit [SWMUs 21-013(d) and 21-013(e)] is a "no discharge site" that did not discharge, or have the potential to discharge, storm water off-site to a surface water. The area is located on a flat mesa (less than 10% slope) between DP Road and the edge of DP Canyon. The site has moderate vegetative cover and the vegetation and ground cover appeared adequate to control erosion. No visible erosion was observed at the site. There was no visible evidence of a channel or other conduit to transport water off-site, and any potential runoff would occur as sheet flow that would dissipate before reaching the edge of the mesa. The absence of a discharge or potential to discharge water from this site, combined with the low soil erosion potential, indicates that the site does not discharge, or cause a discharge, to a "surface water" of the state under WQCC regulations.

The 2007 SWSA is consistent with an earlier SWSA conducted in 1999 that resulted in an erosion matrix score (EMS) of 24.9, which means that the site is a low-priority site with respect to surface water impacts and that it does not discharge to surface waters. The site also had a termination point score of 1.9 (out of 19). A termination score of 1.9 means that runoff, if any, terminates on the mesa top and does not drain into any canyon, drainage area, or other channel that could reach a surface water of the state.

Attachment B: Surface Water Site Assessment Form

Los Alamos National Laboratory

Surface Water Site Assessment Form

White-background items must always be filled in if site is found. Gray-background items are optional under certain conditions. Gray-background items labeled "(Opt)" are always optional.

Site Information

Site ID	PRS ID (if Site is PRS)	Nearest Struct (TA-Bldg)
21-013(d)		-

Setting

Topography (Check all that apply)

☒ On Mesa Top ☐ On Bench in Canyon ☐ On Canyon Floor, Not in Channel ☐ In Channel in Canyon Floor

Topography Explanation

Site located on mesa top next to DP Road

Ground/Canopy Cover -- Leaves, Needles, Rocks, Vegetation, Trees, Structures, Asphalt, etc. (Check all that apply)

☐ Sparse (<25%) ☒ Medium (25-75%) ☐ Thick (>75%)

Ground/Canopy Cover Explanation

Ground + veg cover at higher end of medium.

Slope at Area Impacted (Check all that apply)

☒ Flat (<10%) ☐ Gradual (10-30%) ☐ Steep(>30%)

Slope Explanation

Mesa top location

Run-off

Is There Visible Evidence of Run-off Discharging from Site?

☐ Yes ☒ No

(If "No" visible evidence, skip to Run-On section)

Is Run-off Channelized? (Skip if "No" above)	Channel Type (Check just one. Skip if "No" above or at left)
☐ Yes ☐ No	☐ Man-Made ☐ Natural

Channelization Explanation (Entry required if Run-off Channelized = "Yes")

Where Does Evidence of Run-off Terminate? (Check just one. Skip if Visible Evidence of Run-off = "No")

☐ Drainage/Canyon ☐ On Bench in Canyon ☐ Other (i.e., Retention Pond, Meadow, Mesa Top)

Terminus Explanation (Entry required if Visible Evidence of Run-off = "Yes")

Surface Water Site Assessment Form

Run-off (Continued. Skip if Visible Evidence of Run-off = "No")

Has Run-off Caused Visible Erosion? (Skip if no run-off visible)	Erosion Type (Check just one. Skip if no run-off or erosion visible)
☐ Yes ☐ No	☐ Sheet ☐ Rill ☐ Gully
Erosion Explanation (Entry required if Has Run-off Caused Visible Erosion = "Yes")	

Run-On

Structural Run-On. Are Structures Creating Run-On to the Site? (Must not be "Yes" if Natural Run-On below is "Yes")
☐ Yes ☒ No
Structural Run-On Explanation

Natural Run-On. Is Natural Drainage Creating Run-On to the Site? (Must not be "Yes" if Structural Run-On above is "Yes")
☐ Yes ☒ No
Natural Run-On Explanation

Current Operations Run-On. Are Current Operations Creating Run-On to the Site?
☐ Yes ☒ No
Current Operations Run-On Explanation

Assessment Finding

Based on the Above Criteria and the Assessment of this Site, Does Soil Erosion Potential Exist?
☐ Yes ☒ No

Sign Off

Site Not Found?	Revision of Earlier Assessment?	
☐ Yes ☒ No	☐ Yes ☒ No	
Name of Assessment Author: Loftin		Assessment Date (mm/dd/yyyy): 4/14/07

Surface Water Site Assessment Form

Additional Information

Trash and Debris Notes

Is There Visible Trash and Debris on the Site?	Is There Visible Trash and Debris in a Watercourse?
☐ Yes ☒ No	☐ Yes ☒ No

Trash and Debris Explanation (Required if either answer above = "Yes")

General Notes

Assessment Comments (Opt)

Best Management Practice Notes

Are BMPs in Place?	Are BMPs Being Properly Maintained? (Required if BMPs in place)
☒ Yes ☐ No	☒ Yes ☐ No

Description of Existing BMPs, BMP Recommendations (Required if BMPs in place)

Vegetation + ground cover adequate for control runoff + erosion.

Consolidated Unit 21-013(d)-99 –Former Surface Disposal Areas

Technical Area	TA-21	**Has ER Sampled the Site?**	Yes
Dates of Operation	Unknown	**ER Remedial Action Conducted?**	Yes
Former Operable Unit	OU 1106	**Other Remedial Action Conducted?**	No
Structure Number	N/A	**Aggregate Area (reporting)**	DP Site

Unit Description

Consolidated unit 21-013(d)-99 consists of SWMUs 21-013(d and e), two former surface disposal areas.

SWMU 21-013(d) is a former disposal site used by construction contractors for the disposal of construction-related debris.The site is referred to as the "cold dump."

SWMU 21-013(e) is a former disposal site for building debris, including concrete, demolished building foundations, fill, and asphalt, etc. According to the supervisor responsible for maintaining these disposal areas from 1947 until 1983, no materials containing or contaminated with radionuclides, HEs, or chemicals were disposed of at either location.

ER Project Activities

Information presented in this section was derived from previously published documents. Any discussion of BVs, FVs, and SSL/SALs is taken from the referenced documents and reflects the values in use at the time the documents were written. Activities conducted at this site are described in detail in the documents listed in the reference section below.

The ER Project conducted an RFI at the SWMU 21-013(d and e) surface disposal areas in 1994 to confirm the presence or absence of contamination. The Phase I RFI was conducted simultaneously for both SWMUs. Twenty-six grid sections were laid over both SWMUs with each grid section measuring 20-m x 20-m. A radiation survey was conducted over the grid area. Detected radiation levels were slightly elevated above background levels. Surface, near-surface and subsurface samples were collected from nine grid sections within each SWMU, resulting in the collection of 36 surface and near-surface soil samples from each SWMU. The samples were field-screened for VOCs and alpha, beta/gamma, and gamma radiation. Detected radiation levels were slightly elevated above background levels. Ten samples from SWMU 21-013(d) and nine samples from SWMU 21-013(e) were submitted to an off-site fixed laboratory for analysis of VOCs, inorganic chemicals, PCBs, isotopic uranium, isotopic plutonium, americium-241, and strontium-90. Based on RFI sampling results, the SWMUs were selected for VCAs.

The ER Project conducted the VCAs in 1995. Exploratory trenches were dug into soil piles to allow for field screening and visual inspection. Debris was removed from the piles that contained debris, and the piles were recontoured. Piles that contained no debris, were not recontoured. The asphalt, concrete, and remainder of debris were removed. Confirmation sampling was conducted to verify site cleanup. Two samples were collected from each area where debris had been removed. The sites were restored and reseeded with native grasses. The VCA report requested concurrence of NFA for SWMUs 21-013(d and e). However, because the location of consolidated unit 21-013(d)-99 was slated for transfer to Los Alamos County in 2003, the RRES-R Project conducted additional investigation activities in 2003. The data are presented in the revised 2003 VCA completion report addendum.

In 2003, NMED approved the VCA plan to determine the nature and extent of residual contamination at consolidated unit 21-013(d)-99. In September 2003, the VCA completion report addendum was submitted to NMED. NMED approved the VCA completion report addendum, which recommended NFA for consolidated unit 21-013(d)-99. SWMUs 21-013(d and e) will be requested for removal from Module VIII of LANL's HWFP at a future date.

ER Project Sampling Summary

The following table shows the analytical suites that exceeded BVs, FVs, and SSL/SALs that were in use in FY2004. These data reflect site conditions before any remedial activities may have occurred, as discussed in the ER Project activities section above. BVs are naturally occurring concentrations of inorganic chemicals and radionuclides in soil, sediment, or tuff before any influence from LANL operations. FVs are concentrations of radionuclides in soil, sediment, or tuff that resulted from global atmospheric deposition unrelated to LANL releases. SSL/SALs are concentrations of chemicals or radionuclides based on a residential exposure, below which there is no potential unacceptable risk to human health.

Note: The BV for arsenic is higher than its SSL. Therefore, arsenic may be above its SSL, but not necessarily above its BV.

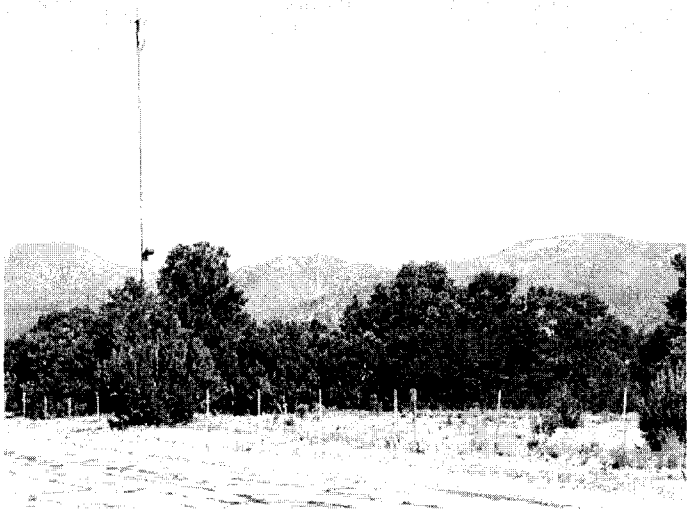
Analytical Suite Sampled	Analytical Suite Detected?	Analytical Suite >FY2004 BV/FV (If Applicable)	Analytical Suite >FY2004 SSL/SAL (Residential)
Inorganic chemicals	✓	✓	✓
PCBs	—	N/A	—
Radionuclides	✓	✓	—
SVOCs	✓	N/A	—
VOCs	✓	N/A	—

The following table provides the analytes that exceeded FY2004 SSL/SALs.

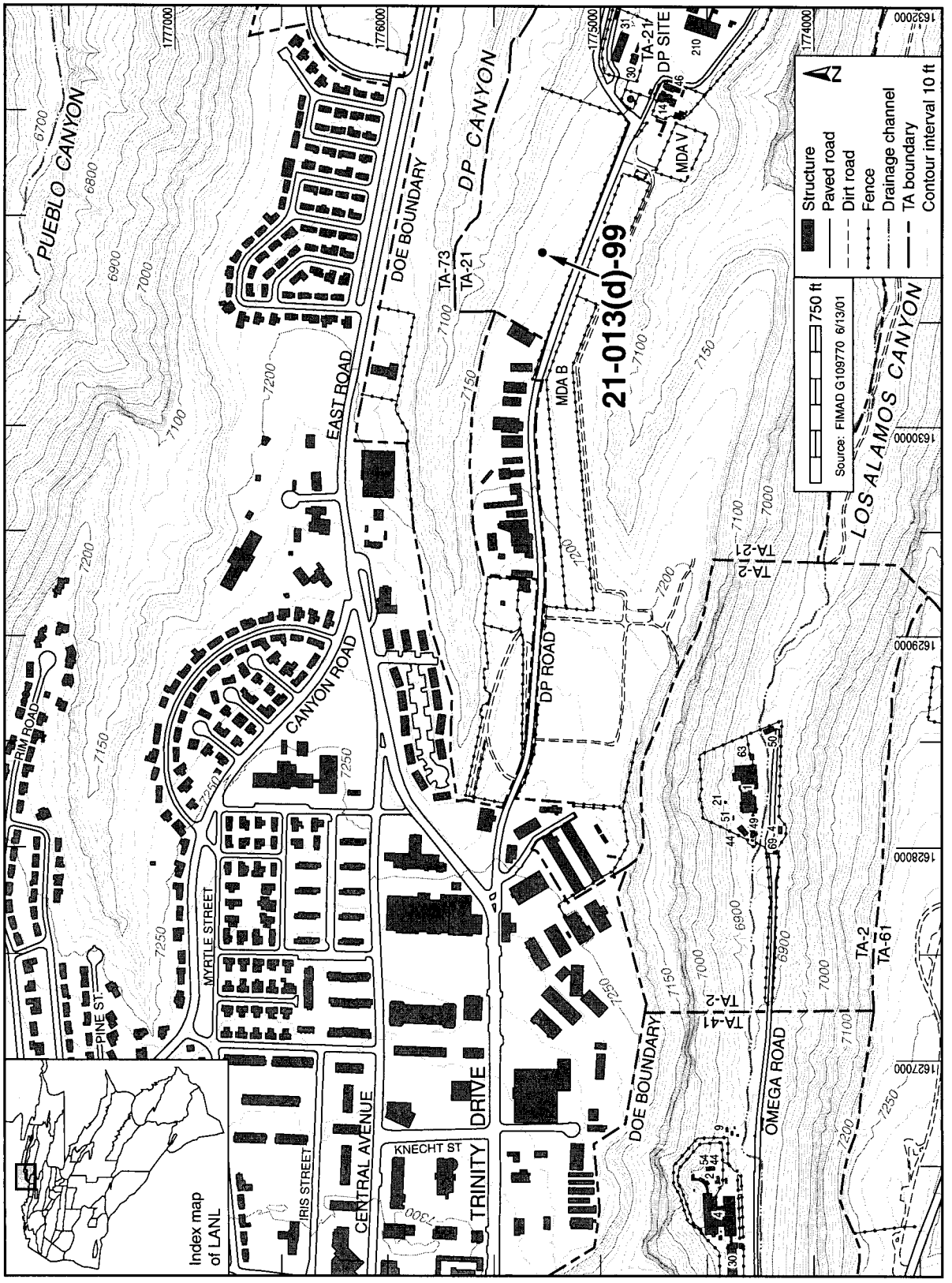
Analytical Suite	Analyte	FY2004 SSL/SAL (Residential)
Inorganic chemicals	Arsenic	3.9 mg/kg
	Manganese	1550 mg/kg

References

Voluntary Corrective Action (VCA) Completion Report Addendum for SWMU 21-013(d)-99.	LA-UR Number: 03-6877
Voluntary Corrective Action Plan Addendum for Solid Waste Management Unit (SWMU) 21-013(d)-99 at Technical Area-21	LA-UR Number: 03-0013
Voluntary Corrective Action Completion Reports for Potential Release Sites, Group 2: PRSs 21-013(c,d,e), 31-001	LA-UR Number: 96-259
Phase Report 1A for Operable Unit 1106, TA-21: Site-Wide Hydrogeologic Investigation	LA-UR Number: 93-2028
TA-21 Operable Unit [1106] RFI Work Plan for Environmental Restoration, Volume II	LA-UR Number: 91-962
Solid Waste Management Units Report, Volume II of IV (TA-10 through TA-25)	LA-UR Number: 90-3400



View of Consolidated Unit 21-013(d)-99


21-013(d)-99
PUEBLO CANYON
DP CANYON
LOS ALAMOS CANYON
DOE BOUNDARY
EAST ROAD
CANYON ROAD
RIM ROAD
PINE ST.
MYRTLE STREET
CENTRAL AVENUE
IRIS STREET
KNECHT ST
TRINITY DRIVE
DP ROAD
MDA B
MDA V
TA-21
DP SITE
TA-73
TA-2
TA-41
TA-61
OMEGA ROAD
Index map of LANL
Structure
Paved road
Dirt road
Fence
Drainage channel
TA boundary
Contour interval 10 ft
750 ft
Source: FIMAD G109770 6/13/01

PRS Number 21-013(d) Surface disposal site (cold dump)

This unit is consolidated under PRS 21-013(d)-99.

Permit Status: HSWA (in permit) - Table A	**Former Operable Unit:** OU 1106
Technical Area: TA-21	**Dates of Operation:**
Sampled by ER Project?: Yes	**ER Remedial Action Conducted?:** Yes
Structure Number: N/A	**Other Remedial Action Conducted?:** No
Regulatory Status: Pending Inclusion in Permit Mod Request	**Radiological Release Report Required?:** No
NFA Initial Proposal Date: 9/30/1995	**Rad COPC:** Confirmed
NFA Criteria: 5	**Facility Management Unit:**
Watershed (Reporting): Los Alamos	**Aggregate Area (Reporting):** DP Site
Private Property?: No	**Workoff Date:** Not Applicable
Unit Status:	**Authorization Basis:** None
Category: Surface Disposal	**Regulatory Program:** Not Regulated

Table of Acronyms

Glossary

Questions? Comments? Updates? Please click the icon and let us know!

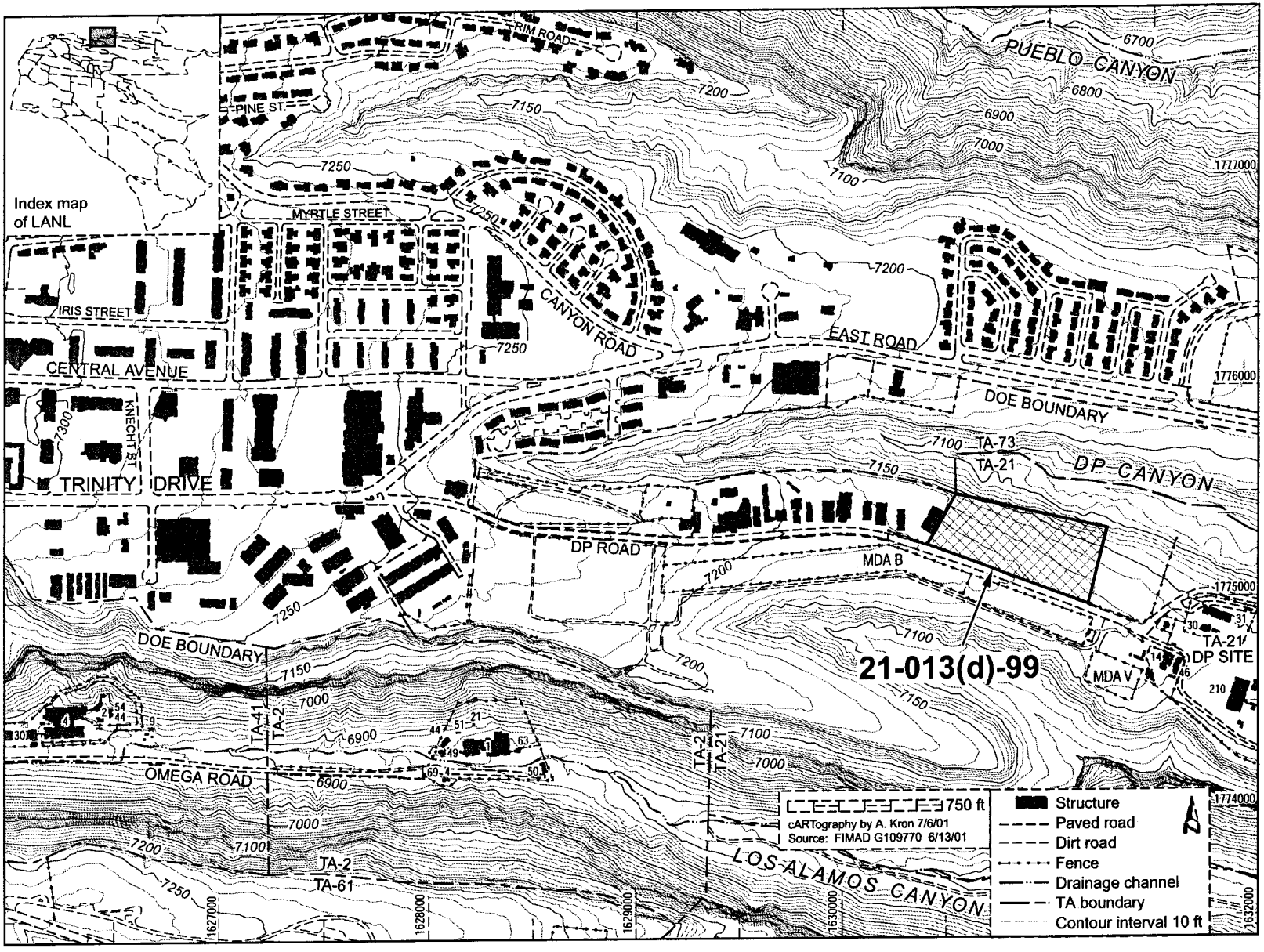
Unit Description

SWMUs 21-013 (c,d,e) are surface disposal areas. SWMU 21-013 (d) was referred to as the "cold dump". SWMUs 21-013 (c,d) were locations where building debris such as excess concrete, demolished foundations, etc., were disposed. Each of the SWMUs was investigated in the 1994 RFI. In 1995, corrective action activities were conducted at each of the sites.

Documents | No Photographs **Maps** | **WBS**

hits = 2361

<< Back to PRS Search


Index map of LANL
RIM ROAD
PINE ST.
MYRTLE STREET
IRIS STREET
CENTRAL AVENUE
KNECHT ST.
TRINITY DRIVE
CANYON ROAD
EAST ROAD
DOE BOUNDARY
DP ROAD
MDA B
MDA V
TA-73
TA-21
DP CANYON
TA-21 DP SITE
PUEBLO CANYON
OMEGA ROAD
TA-41
TA-2
TA-61
LOS ALAMOS CANYON
21-013(d)-99
750 ft
cARTography by A. Kron 7/6/01
Source: FIMAD G109770 6/13/01
Structure
Paved road
Dirt road
Fence
Drainage channel
TA boundary
Contour interval 10 ft

PRS Number 21-013(e) Surface disposal site

This unit is consolidated under PRS 21-013(d)-99.

Permit Status: HSWA (in permit) - Table A	**Former Operable Unit:** OU 1106
Technical Area: TA-21	**Dates of Operation:**
Sampled by ER Project?: Yes	**ER Remedial Action Conducted?:** Yes
Structure Number: N/A	**Other Remedial Action Conducted?:** No
Regulatory Status: Pending Inclusion in Permit Mod Request	**Radiological Release Report Required?:** No
NFA Initial Proposal Date: 9/30/1995	**Rad COPC:** Confirmed
NFA Criteria: 5	**Facility Management Unit:**
Watershed (Reporting): Los Alamos	**Aggregate Area (Reporting):** DP Site
Private Property?: No	**Workoff Date:** Not Applicable
Unit Status:	**Authorization Basis:** None
Category: Surface Disposal	**Regulatory Program:** Not Regulated

Table of Acronyms

Glossary

Questions? Comments? Updates? Please click the icon and let us know!

Unit Description

SWMUs 21-013 (c,d,e) are surface disposal areas. SWMU 21-013 (d) was referred to as the "cold dump". SWMUs 21-013 (c,d) were locations where building debris such as excess concrete, demolished foundations, etc., were disposed. Each of the SWMUs was investigated in the 1994 RFI. In 1995, corrective action activities were conducted at each of the sites.

Documents | **Photographs** | No Maps **WBS**

hits = 2489

<< Back to PRS Search

Attachment B: Surface Water Site Assessment Form

Los Alamos National Laboratory

Surface Water Site Assessment Form

White-background items must always be filled in if site is found. Gray-background items are optional under certain conditions. Gray-background items labeled "(Opt)" are always optional.

Site Information

Site ID	PRS ID (If Site is PRS)	Nearest Struct (TA-Bldg)
21-023(e)		-

Setting

Topography (Check all that apply)

☒ On Mesa Top ☐ On Bench in Canyon ☐ On Canyon Floor, Not in Channel ☐ In Channel in Canyon Floor

Topography Explanation

Site located on mesa top next to DP Road.

Ground/Canopy Cover -- Leaves, Needles, Rocks, Vegetation, Trees, Structures, Asphalt, etc. (Check all that apply)

☐ Sparse (<25%) ☒ Medium (25-75%) ☐ Thick (>75%)

Ground/Canopy Cover Explanation

Ground and veg cover at the higher end of medium.

Slope at Area Impacted (Check all that apply)

☒ Flat (<10%) ☐ Gradual (10-30%) ☐ Steep(>30%)

Slope Explanation

Mesa top location

Run-off

Is There Visible Evidence of Run-off Discharging from Site?

☐ Yes ☒ No

(If "No" visible evidence, skip to Run-On section)

Is Run-off Channelized? (Skip if "No" above)	Channel Type (Check just one. Skip if "No" above or at left)
☐ Yes ☐ No	☐ Man-Made ☐ Natural

Channelization Explanation (Entry required if Run-off Channelized = "Yes")

Where Does Evidence of Run-off Terminate? (Check just one. Skip if Visible Evidence of Run-off = "No")

☐ Drainage/Canyon ☐ On Bench in Canyon ☐ Other (i.e., Retention Pond, Meadow, Mesa Top)

Terminus Explanation (Entry required if Visible Evidence of Run-off = "Yes")

Surface Water Site Assessment Form

Run-off (Continued. Skip if Visible Evidence of Run-off = "No")

Has Run-off Caused Visible Erosion? (Skip if no run-off visible)	Erosion Type (Check just one. Skip if no run-off or erosion visible)
☐ Yes ☐ No	☐ Sheet ☐ Rill ☐ Gully
Erosion Explanation (Entry required if Has Run-off Caused Visible Erosion = "Yes")	

Run-On

Structural Run-On. Are Structures Creating Run-On to the Site? (Must not be "Yes" if Natural Run-On below is "Yes")

☐ Yes ☒ No

Structural Run-On Explanation

Natural Run-On. Is Natural Drainage Creating Run-On to the Site? (Must not be "Yes" if Structural Run-On above is "Yes")

☐ Yes ☒ No

Natural Run-On Explanation

Current Operations Run-On. Are Current Operations Creating Run-On to the Site?

☐ Yes ☒ No

Current Operations Run-On Explanation

Assessment Finding

Based on the Above Criteria and the Assessment of this Site, Does Soil Erosion Potential Exist?

☐ Yes ☒ No

Sign Off

Site Not Found?	Revision of Earlier Assessment?	
☐ Yes ☒ No	☐ Yes ☒ No	
Name of Assessment Author		Assessment Date (mm/dd/yyyy)
Loffin		4/4/07

Surface Water Site Assessment Form

Additional Information

Trash and Debris Notes

Is There Visible Trash and Debris on the Site?	Is There Visible Trash and Debris in a Watercourse?
☐ Yes ☒ No	☐ Yes ☒ No

Trash and Debris Explanation (Required if either answer above = "Yes")

General Notes

Assessment Comments (Opt)

Best Management Practice Notes

Are BMPs in Place?	Are BMPs Being Properly Maintained? (Required if BMPs in place)
☒ Yes ☐ No	☒ Yes ☐ No

Description of Existing BMPs, BMP Recommendations (Required if BMPs in place)

Vegetation + ground cover adequate to control runoff + erosion.

SWMU 21-024(f)

SWMU 21-024(f)

Unit Description and History

SWMU 21-024(f) is a former septic system that consisted of an inlet pipe, septic tank (structure 21-124), outlet pipe, outfall pit, and outfall drainage area. Historic documentation demonstrates that the septic system received domestic sewage from Building 21-45 from 1947 to 1954. Effluent from the septic tank was discharged through a 4-in. vitrified clay pipe (VCP) to a shallow, rock-lined pit approximately 158 ft north to the northern edge of DP Mesa. The former pit was approximately 5 ft in diameter x 2 ft deep. Downgradient of the pit is a broad, moderate slope to the edge of a steep slope to the bottom of DP Canyon.

LANL conducted a VCA at this site between 2001 and 2003. The sump, septic system, and outfall pit were all removed as part of the VCA. These VCA activities were performed in conjunction with VCA activities for AOCs C-21-015 and 21-030. A VCA completion report for SWMU 21-024(f) and AOCs C-21-015 and 21-030, which recommended NFA for the three sites on the basis of no potential unacceptable risk to human and ecological receptors, was submitted to NMED in September 2003. The VCA report was approved by NMED's Hazardous Waste Bureau (HWB) on June 21, 2004, and a determination of "Corrective Action Complete" under the Consent Order was issued by the HWB on September 30, 2005.

Impact to Surface Waters and Ground Water

In 2007, LANL conducted a SWSA for SWMU 21-024(f). Based on the SWSA criteria, the 2007 inspection determined that SWMU 21-024(f) is a "no discharge site" that did not discharge, or have the potential to discharge, storm water off-site to surface water. Further, the site has low soil erosion potential. The area is located on a flat (less than 10% slope) mesa, and no visible erosion was observed at the site. The septic tank and drainline had been removed and the site was well vegetated and rehabilitated. Additionally, there was no evidence of a physical channel or other means to transport storm water runoff at this site. Any runoff would be unchannelized sheet flow; it would remain on the site and not leave the site boundary. The absence of a water discharge, and the absence of a potential to discharge, outside of site boundaries, along with the low soil erosion potential, show that this SWMU does not discharge, or cause a discharge, to a "surface water" of the state under WQCC regulations.

The 2007 SWSA is consistent with an earlier SWSA that resulted in an EMS of 24.9, which means that the site is a low-priority site with respect to surface water impacts and that it does not discharge to surface waters. The site also had a termination point score of 1.9 (out of 19). A termination score of 1.9 means that runoff, if any, terminates on the mesa top, and does not drain into any canyon, drainage area, or other channel that could reach a surface water of the state. Since this earlier SWSA was conducted, the septic tank and drainline have been removed and the site is well vegetated and rehabilitated.

Attachment B: Surface Water Site Assessment Form

Los Alamos National Laboratory

Surface Water Site Assessment Form

White-background items must always be filled in if site is found. Gray-background items are optional under certain conditions. Gray-background items labeled "(Opt)" are always optional.

Site Information

Site ID	[redacted]	Nearest Struct (TA-Bldg)
21-024(f)		-

Setting

Topography (Check all that apply)

☒ On Mesa Top ☐ On Bench in Canyon ☐ On Canyon Floor, Not in Channel ☐ In Channel in Canyon Floor

Topography Explanation

Site begins next to road on a flat mesa and runs north to edge of mesa. Septic tank + drainline have been removed + area has been rehabed.

Ground/Canopy Cover -- Leaves, Needles, Rocks, Vegetation, Trees, Structures, Asphalt, etc. (Check all that apply)

☐ Sparse (<25%) x x x ☒ Medium (25-75%) [redacted] ☐ Thick (>75%) [redacted]

Ground/Canopy Cover Explanation

D+D area is well rehabed + vegetated.

Slope at Area Impacted (Check all that apply)

☐ Flat (<10%) ☒ Gradual (10-30%) ☐ Steep(>30%)

Slope Explanation

There is a gradual slope from top of mesa to north edge.

Run-off

Is There Visible Evidence of Run-off Discharging from Site?

☐ Yes ☒ No *

(If "No" visible evidence, skip to Run-On section)

[redacted]

[redacted]

* There is visible evidence of past sheetflow on the site but it does not leave site boundary.

Surface Water Site Assessment Form

Run-off (Continued. Skip if Visible Evidence of Run-off = "No")

Has Run-off Caused Visible Erosion? (Skip if Run-off = "No")	Erosion Type (Check All That Apply. Skip if Run-off = "No")
☐ Yes ☒ No	☐ Gully ☐ Rill ☐ Sheet
Erosion Explanation (Only Required if Run-off Caused Visible Erosion = "Yes")	

Run-On

Structural Run-On. Are Structures Creating Run-On to the Site? (Must not be "Yes" if Natural Run-On below is "Yes")

☐ Yes ☒ No

Structural Run-On Explanation

Natural Run-On. Is Natural Drainage Creating Run-On to the Site? (Must not be "Yes" if Structural Run-On above is "Yes")

☐ Yes ☒ No

Natural Run-On Explanation

Current Operations Run-On. Are Current Operations Creating Run-On to the Site?

☐ Yes ☒ No

Current Operations Run-On Explanation

Assessment Finding

Based on the Above Criteria and the Assessment of this Site, Does Soil Erosion Potential Exist?

☐ Yes ☒ No

Sign Off

Site Not Found?	Revision of Earlier Assessment?	
☐ Yes ☒ No	☐ Yes ☒ No	
Name of Assessment Author: Sam Loftin		Assessment Date (mm/dd/yyyy): 4/4/07

Surface Water Site Assessment Form

Additional Information

Trash and Debris Notes

Is There Visible Trash and Debris on the Site?	Is There Visible Trash and Debris in a Watercourse?
☐ Yes ☒ No	☐ Yes ☒ No
Trash and Debris Explanation Required if Either Answer Above = "Yes"	

General Notes

Assessment Comments (optional)

Best Management Practice Notes

Are BMPs in Place?	Are BMPs Being Properly Maintained? Required if Yes Checked
☒ Yes ☐ No	☒ Yes ☐
Description of Existing BMPs, BMP Recommendations (Required if BMPs in Place)	

SWMU 21-024(f) – Former Septic System

Technical Area	TA-21	**Has ER Sampled the Site?**	Yes
Dates of Operation	1947-1954	**ER Remedial Action Conducted?**	Yes
Former Operable Unit	OU 1106	**Other Remedial Action Conducted?**	No
Structure Number	21-124	**Aggregate Area (reporting)**	DP Site

Unit Description

SWMU 21-024(f) is a former septic system that consisted of an inlet pipe, septic tank (structure 21-124), outlet pipe, outfall pit, and outfall drainage area. The septic system received sewage from Building 21-45 from 1947 to 1954. Building 21-45 was originally located at Fifteenth Street and Trinity Drive. In 1947, it was moved to the north side of DP Road north of the DP laundry building (Building 21-20) and was used for safety training. In 1949, Building 21-45 was renovated for the Industrial Waste Studies Group, a group that studied various waste streams in an attempt to recover valuable materials such as plutonium and uranium. The northwest restroom of the building was converted into a waste treatment room, which included a stainless-steel sink with a drainline that led to the septic tank. Sewage was discharged from the building and ran through a 4-in. VCP approximately 84 ft to the 1000-gal. steel septic tank. Effluent from the septic tank was discharged through a 4-in. VCP to a shallow rock-lined pit approximately 158 ft north to the northern edge of DP Mesa. The former pit was approximately 5 ft in diameter x 2 ft deep. The volume of liquid discharged to the pit is unknown. Downgradient of the pit is a broad, moderate slope to the edge of the mesa, then a steep slope to the bottom of DP Canyon. Building 21-54 was removed in 1954, but the septic system was abandoned in place. The septic tank, associated lines, and the outfall pit were removed during the 2001-2003 VCA activities.

SWMU 21-024(f) was sampled during three separate sampling events before 1999 for inorganic chemicals, organic chemicals, radionuclides, SVOCs, and VOCs.

In 1988, one soil sample was collected from the SWMU 21-004(f) outfall pit beneath the outlet pipe during the reconnaissance sampling activities by DOE. Analytical results showed that lead, mercury, plutonium-239/-240 and tritium were greater than background values.

ER Project Activities

Information presented in this section was derived from previously published documents. Any discussion of BVs, FVs, and SSL/SALs is taken from the referenced documents and reflects the values in use at the time the documents were written. Activities conducted at this site are described in detail in the documents listed in the reference section below.

RFI activities were conducted in 1992 and 1993. The 1992 activities included a radiological field survey in the outfall area adjacent to the pit and collection of soil samples. Nine soil samples were collected from three locations. Results showed radionuclides at or below background.

The 1993 activities included drilling two boreholes. One borehole was drilled adjacent to the septic tank location to a total depth of 20 ft, and four samples were collected from the borehole. The second borehole was advanced in the center of the outfall pit to a total depth of 10 ft. Four samples were collected from the second borehole. Results showed no radionuclides above background, inorganic chemicals were reported below BVs, and no organic chemicals above detection limits.

In 1999, a VCA Plan was prepared for SWMU 21-024(f) [septic tank system] and AOC C-21-015 (former Building 21-45) and submitted to NMED. The VCA objectives were to define the nature and extent of any contamination and to remove all structures associated with this SWMU and AOC. Waste characterization samples were collected from the septic tank in 1999.

Implementation of the VCA activities was conducted in 2001, 2002, and 2003. During these activities, the sump within the footprint of Building 21-45 (AOC C-21-015) was identified as a separate AOC (21-030). The sump, septic system, and outfall pit were all removed as part of the VCA. A VCA completion report for SWMU 21-024(f) and AOCs C-21-015 and 21-030 was submitted to NMED in September 2003. Results reported in the VCA completion report indicate that the nature and extent of contamination has been determined, and that the SWMU and AOCs do not pose a potential unacceptable risk to human health or the environment. Therefore, the site was recommended for NFA. NMED approved the NFA recommendation at this site in June 2004.

ER Project Sampling Summary

The following table shows the analytical suites that exceeded BVs, FVs, and SSL/SALs that were in use in FY2004. These data reflect site conditions before any remedial activities may have occurred, as discussed in the ER Project activities section above. BVs are naturally occurring concentrations of inorganic chemicals and radionuclides in soil, sediment, or tuff before any influence from LANL operations. FVs are concentrations of radionuclides in soil, sediment, or tuff that resulted from global atmospheric deposition unrelated to LANL releases. SSL/SALs are concentrations of chemicals or radionuclides based on a residential exposure, below which there is no potential unacceptable risk to human health.

Analytical Suite Sampled	Analytical Suite Detected?	Analytical Suite >FY2004 BV/FV (If Applicable)	Analytical Suite >FY2004 SSL/SAL (Residential)
Inorganic chemicals	✓	✓	—
Radionuclides	✓	✓	—
SVOCs	—	N/A	—
VOCs	✓	N/A	—

References

Voluntary Corrective Action Completion Report for SWMU 21-024(f) and AOCs C-21-015 and 21-030.	LA-UR Number: 03-5441
Voluntary Corrective Action Plan for PRS 21-024(f) and C-21-015	LA-UR Number: 99-3407
Phase Report Addendum, 1B and 1C, Operable Unit 1106, (TA-21), RCRA Facility Investigation	LA-UR Number: 94-4360
Phase Report 1C for TA-21, Operable Unit 1106 RCRA Facility Investigation: Outfalls Investigation	LA-UR Number: 94-228
Phase Report 1A for Operable Unit 1106, TA-21: Site-Wide Hydrogeologic Investigation	LA-UR Number: 93-2028
TA-21 Operable Unit [1106] RFI Work Plan for Environmental Restoration, Volume II	LA-UR Number: 91-962
Solid Waste Management Units Report, Volume II of IV (TA-10 through TA-25)	LA-UR Number: 90-3400

No photo available

AOC C-21-015 & AOC 21-030

AOC C-21-015 and AOC 21-030

Unit Description and History

AOC C-21-015 is former Building 21-45 and its associated appurtenances, originally located at 15th Street and Trinity Drive. In 1947, the building was moved to Technical Area 21 on the north side of DP Road, north of the former DP laundry building (Building 21-20). Initially Building 21-45 was used for safety training. In 1949, Building 21-45 was renovated for the Industrial Waste Studies Group, a LANL group that studied various waste streams in an attempt to recover more plutonium and uranium as well as other valuable and scarce materials. The northwest restroom of the building was converted into a waste treatment room so that waste could be transferred to the DP laundry building via steel piping. The conversion included building an 8-ft by 6-ft by 4-ft pit that drained to a 3-ft by 3.5-ft by 2.5-ft concrete sump. The liquid waste-handling equipment was positioned over the pit and the sump. A steel pipe exited the sump and was routed underground and ran to the west, where it was routed above ground and was attached to an existing above-ground steam line. The steam line and the pipe passed over DP Road and continued above ground into the former laundry building and the main laundry sump. The laundry sump discharged to the MDA V absorption beds. Building 21-45 was declared free of contamination and sold for salvage intact in 1954. The concrete sump and underground pipes were reportedly abandoned in place in 1954. The above-ground section of the steel pipe is no longer in place.

AOC 21-030 is a concrete sump, installed in 1947 and operated through 1954. The sump was located in Building 21-45 (AOC C-21-015) and measured approximately 3.5 ft x 4.0 ft x 2.8 ft. AOC C-21-015 includes AOC 21-030, which was located within Building 21-45 and was consolidated into AOC C-21-015 for the purpose of conducting corrective actions.

A VCA Plan for SWMU 21-024(f) and AOC C-21-015 (including AOC 21-030) was prepared in 1999. Initial VCA activities were conducted in 1999 and included locating the septic tank [SWMU 21-024(f)] and sump (AOC C-21-015) and collecting waste characterization samples from these structures. VCA activities were continued in 2001. These activities included removing the sump and outlet line and collecting confirmation samples from locations along the drain line and within the footprint of Building 21-45. A VCA completion report for SWMU 21-024(f) and AOCs C-21-015 and 21-030, which recommended NFA for the three sites on the basis of no potential unacceptable risk to human and ecological receptors, was submitted to NMED in September 2003. The VCA report was approved by the HWB on June 21, 2004, and a determination of "Corrective Action Complete" under the Consent Order was issued by the HWB on September 30, 2005.

Impact to Surface Waters and Ground Water

In 2007, LANL conducted a SWSA for AOCs C-21-015 and 21-030. Based on the SWSA criteria, the 2007 inspection determined that these AOCs are "no discharge" sites that do not discharge or have the potential to discharge storm water runoff to a surface water. The sites are located on a flat mesa (less than 10% slope) north of DP Road. The sites have sparse vegetative cover and substantial exposed bedrock. The vegetation and ground cover appeared adequate to control erosion. No visible erosion was observed at the sites, and no channel or other conduit was observed that could transport storm water runoff to a surface water. Potential runoff at these sites would occur as sheet flow and dissipate before reaching the mesa top. The absence of discharge from these sites, and low evidence of visible erosion, shows that these sites do not discharge, or cause a discharge, to a "surface water" of the state under WQCC regulations.

The 2007 SWSA is consistent with an earlier SWSA conducted in 1999 that resulted in an EMS of 22.7, which means that the site is a low-priority site with respect to surface water impacts and does not discharge to surface waters. The site also had a termination point score of 1.9 (out of 19).

A termination score of 1.9 means that runoff, if any, terminates on the mesa top, and does not drain into any canyon, drainage area, or other channel that could reach a surface water of the state.

Attachment B: Surface Water Site Assessment Form

Los Alamos National Laboratory

Surface Water Site Assessment Form

White-background items must always be filled in if site is found. Gray-background items are optional under certain conditions. Gray-background items labeled "(Opt)" are always optional.

Site Information

Site ID	PRS ID (If Site Is PRS)	Nearest Struct (TA-Bldg)
C-21-015		-

Setting

Topography (Check all that apply)

☒ On Mesa Top ☐ On Bench in Canyon ☐ On Canyon Floor, Not in Channel ☐ In Channel in Canyon Floor

Topography Explanation

Site is located on mesa top north of DP Road.

Ground/Canopy Cover -- Leaves, Needles, Rocks, Vegetation, Trees, Structures, Asphalt, etc. (Check all that apply)

☐ Sparse (<25%) ☒ Medium (25-75%) ☐ Thick (>75%)

Ground/Canopy Cover Explanation

Site has sparse vegetation cover but substantial rock cover

Slope at Area Impacted (Check all that apply)

☒ Flat (<10%) ☐ Gradual (10-30%) ☐ Steep(>30%)

Slope Explanation

Slope is relatively flat from site to the edge of the mesa.

Run-off

Is There Visible Evidence of Run-off Discharging from Site?

☒ Yes ☐ No

(If "No" visible evidence, skip to Run-On section)

Is Run-off Channelized? (Skip if "No" above)	Channel Type (Check just one. Skip if "No" above or at left)
☐ Yes ☒ No	☐ Man-Made ☐ Natural

Channelization Explanation (Entry required if Run-off Channelized = "Yes")

No channel exists to transport storm water runoff. Runoff would be unchannelized sheet flow that would infiltrate/dissipate before reaching the edge of the mesa.

Where Does Evidence of Run-off Terminate? (Check just one. Skip if Visible Evidence of Run-off = "No")

☐ Drainage/Canyon ☐ On Bench in Canyon ☐ Other (i.e., Retention Pond, Meadow, Mesa Top)

Terminus Explanation (Entry required if Visible Evidence of Run-off = "Yes")

Surface Water Site Assessment Form

Run-off (Continued. Skip if Visible Evidence of Run-off = "No")

Has Run-off Caused Visible Erosion? (Skip if no run-off visible)	Erosion Type (Check just one. Skip if no run-off or erosion visible)
☐ Yes ☐ No	☐ Sheet ☐ Rill ☐ Gully
Erosion Explanation (Entry required if Has Run-off Caused Visible Erosion = "Yes")	

Run-On

Structural Run-On. Are Structures Creating Run-On to the Site? (Must not be "Yes" if Natural Run-On below is "Yes") ☐ Yes ☐ No
Structural Run-On Explanation

Natural Run-On. Is Natural Drainage Creating Run-On to the Site? (Must not be "Yes" if Structural Run-On above is "Yes") ☐ Yes ☐ No
Natural Run-On Explanation

Current Operations Run-On. Are Current Operations Creating Run-On to the Site? ☐ Yes ☐ No
Current Operations Run-On Explanation

Assessment Finding

Based on the Above Criteria and the Assessment of this Site, Does Soil Erosion Potential Exist? ☐ Yes ☐ No

Sign Off

Site Not Found?	Revision of Earlier Assessment?	
☐ Yes ☐ No	☐ Yes ☐ No	
Name of Assessment Author		Assessment Date (mm/dd/yyyy) / /

Surface Water Site Assessment Form

Additional Information

Trash and Debris Notes

Is There Visible Trash and Debris on the Site?	Is There Visible Trash and Debris in a Watercourse?
☐ Yes ☐ No	☐ Yes ☐ No

Trash and Debris Explanation (Required if either answer above = "Yes")

General Notes

Assessment Comments (Opt)

Best Management Practice Notes

Are BMPs in Place?	Are BMPs Being Properly Maintained? (Required if BMPs in place)
☐ Yes ☐ No	☐ Yes ☐ No

Description of Existing BMPs, BMP Recommendations (Required if BMPs in place)

Los Alamos NATIONAL LABORATORY Environment & Remediation Support Services

Status: DRAFT

PRS Number C-21-015

Building

Permit Status: NON-HSWA	**Regulatory Status:** Administratively Complete
Technical Area: TA-21	**Structure Number:** 21-45
Watershed (Reporting): Los Alamos	**Aggregate Area (Reporting):** DP Site
Sampled by ER Project?: Yes	**ER Remedial Action Conducted?:** No
Dates of Operation: 1947-1954	**Other Remedial Action Conducted?:** Yes
Former Operable Unit: OU 1106	**Radiological Release Report Required?:** No
NFA Initial Proposal Date: 5/23/1991	**Rad COPC:** Confirmed
NFA Criteria: 5	**Facility Management Unit:** FMU-8
Private Property?: No	**Workoff Date:** Not Applicable
Unit Status:	**Authorization Basis:** None
Category: Sumps	**Regulatory Program:** RCRA

ERSS Table of Acronyms
ERSS Glossary
Questions? Comments? Updates? Please click the icon and let us know!

Unit Description

AOC C-21-015 is former Building 21-45 and its associated appurtenances, originally located at 15th Street and Trinity Drive. In 1947, the building was moved to the north side of DP Road north of the former DP laundry building (Building 21-20). Initially the building (Buiding 21-45) was used for safety training. In 1949, Building 21-45 was renovated for the Industrial Waste Studies Group, a LANL group that studied various waste streams in an attempt to recover more plutonium and uranium as well as other

valuable and scarce materials. The northwest restroom of the building was converted into a waste treatment room so that waste could be transferred to the DP laundry building via steel piping. The conversion included building an 8-ft by 6-ft by 4-ft pit that drained to a 3-ft by 3.5-ft by 2.5-ft concrete sump. The liquid waste-handling equipment was positioned over the pit and the sump. A steel pipe exited the sump and was routed underground and ran to the west where it was routed aboveground and attached to an existing aboveground steam line. The steam line and the pipe passed over DP Road and continued aboveground into the former laundry building and the main laundry sump. The laundry sump discharged to the MDA V absorption beds. It is unknown whether a release from this system occurred. Building 21-45 was declared free of contamination and sold for salvage intact in 1954. The concrete sump and underground pipes were reportedly abandoned in place in 1954.The aboveground section of the steel pipe is no longer in place.

AOC C-21-015 was proposed for NFA in the OU 1106 work plan. Subsequent historical research and field reconnaissance surveys indicated that a concrete sump and underground piping were left in place after the building was removed in 1954. Also, the operational history was different than was known at the time the work plan was prepared and the NFA was proposed.

There were no previous field investigation activities at AOC C-21-015 prior to 1999. A VCA Plan for SWMU 21-024(f) and AOC C-21-015 was prepared in 1999. Initial VCA activities were conducted in 1999. These activities included locating the septic tank [SWMU 21-024(f)] and sump (AOC C-21-015) and collecting waste characterization samples from these structures.

VCA activities were continued in 2001. Remediation activities began by exposing the sides of the concrete sump and locating the sump outlet line with a backhoe. The entire length of the exposed sump outlet line was field screened for radioactivity. Field screening measured no elevated radiation levels. Inspection of the line showed it to be in good condition and the treaded fittings appeared to be intact. No soil staining was observed beneath the line during and following removal. Fourteen confirmation samples were collected from seven locations along the outline following its removal to bias sample locations to areas where releases would have most likely occurred. The samples were submitted for fixed laboratory analysis for organic chemicals, inorganic chemicals, and radionuclides.

The concrete sump, including its contents, was excavated and removed. The concrete sump was disposed of at TA-54, Area G. The outside walls and bottom of the sump were inspected and no cracks or staining was observed. Confirmation samples were collected from borehole locations beneath and down gradient of the former sump. The samples were submitted for fixed laboratory analysis for organic chemicals, inorganic chemicals, and radionuclides. The excavation was backfilled and the surface was regarded.

Six samples were collected from the footprint of former Building 21-45, three from the shallow soil and three from tuff. The three surface soil confirmation samples were collected from 0-6 in. within the footprint of the building. The sample locations were distributed throughout the building footprint. The confirmation samples from the second depth interval were collected at locations immediately adjacent to the surface sample locations within the building footprint. All samples were submitted for fixed laboratory analysis for organic chemicals, inorganic chemicals, and radionuclides.

In 2002, ten additional samples were collected from five of the confirmation sample locations from two depth intervals and analyzed for radionuclides to confirm that the nature and extent of radionuclides detected in the sump contents had been adequately defined.

Organic chemicals were detected in the VCA confirmation samples. All organic chemicals detected in the confirmation samples were identified as potential contaminants. A human health screening assessment was conducted and no organic chemicals were retained as potential contaminants. An ecological screening evaluation was conducted and no organic chemicals were retained as potential ecological contaminants. Inorganic chemicals were detected above BVs. Based on the results of the data review several inorganic chemicals were identified as potential contaminants. A human health screening assessment was conducted and no inorganic chemicals were retained as potential contaminants. An ecological screening evaluation was conducted and no inorganic chemicals were retained as potential

ecological contaminants. Radionuclides were detected above BVs/FVs. Based on the results of the data review several radionuclides were identified as potential contaminants. A human health screening assessment was conducted and no radionuclides were retained as potential contaminants. An ecological screening evaluation was conducted and no radionuclides were retained as potential ecological contaminants.

Project Activities

Project Activities are not available.

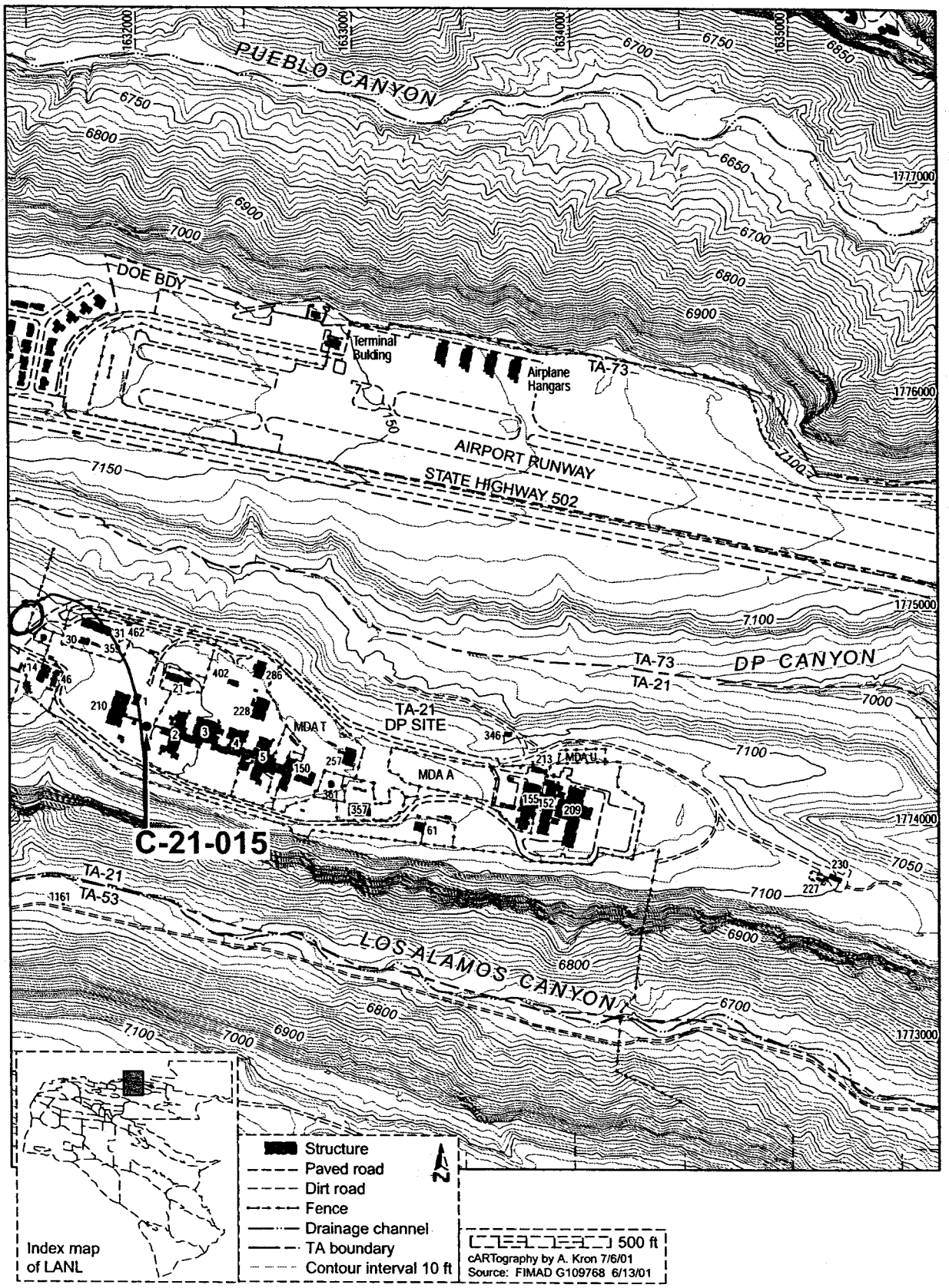
Related PRSs (Historical Information)

There are no other related PRSs.

Documents | Photographs | Maps | WBS

NOTE: Information presented on this page was derived from previously published documents and subject matter expert knowledge. Any discussion of BVs, FVs, and SSL/SALs is taken from referenced documents and reflects the values in use at the time the documents were written. If RFI activities were conducted at this site, they are described in detail in the documents listed in the Documents hyperlink above.

<< Back to PRS Home


PUEBLO CANYON
DOE BDY
Terminal Building
Airplane Hangars
TA-73
AIRPORT RUNWAY
STATE HIGHWAY 502
DP CANYON
TA-21
TA-21 DP SITE
MDA T
MDA A
MDA U
C-21-015
TA-53
LOS ALAMOS CANYON
1632000
1633000
1634000
1635000
1777000
1776000
1775000
1774000
1773000
Index map of LANL
Structure
Paved road
Dirt road
Fence
Drainage channel
TA boundary
Contour interval 10 ft
N
500 ft
cARTography by A. Kron 7/6/01
Source: FIMAD G109768 6/13/01

Los Alamos NATIONAL LABORATORY Environment & Remediation Support Services

Status: DRAFT

PRS Number 21-030

Sump

Permit Status: NON-HSWA	**Regulatory Status:** Administratively Complete
Technical Area: TA-21	**Structure Number:** N/A
Watershed (Reporting): Los Alamos	**Aggregate Area (Reporting):** DP Site
Sampled by ER Project?: No	**ER Remedial Action Conducted?:** No
Dates of Operation: 1947-1954	**Other Remedial Action Conducted?:** No
Former Operable Unit: OU 1106	**Radiological Release Report Required?:** No
NFA Initial Proposal Date: 9/29/2003	**Rad COPC:** Not Suspected
NFA Criteria: 5	**Facility Management Unit:** FMU-8
Private Property?: No	**Workoff Date:** Not Applicable
Unit Status:	**Authorization Basis:** None
Category: Sumps	**Regulatory Program:** RCRA

ERSS Table of Acronyms
ERSS Glossary
Questions? Comments? Updates? Please click the icon and let us know!

Unit Description

AOC 21-030 is a concrete sump, installed in 1947 and operated through 1954. Dimensions of the sump are approximately 3.5 ft x 4.0 ft x 2.8 ft. The sump identified as AOC 21-030 is the same sump that is included with Building 21-45 for AOC C-21-015. AOC 21-030 is located entirely within the boundaries of AOC C-21-015.

Project Activities

Project Activities are not available.

Related PRSs (Historical Information)

There are no other related PRSs.

Documents | **Photographs** | **Maps** | No WBS

NOTE: Information presented on this page was derived from previously published documents and subject matter expert knowledge. Any discussion of BVs, FVs, and SSL/SALs is taken from referenced documents and reflects the values in use at the time the documents were written. If RFI activities were conducted at this site, they are described in detail in the documents listed in the Documents hyperlink above.

<< Back to PRS Home

"Looking North" ???