

MEMORANDUM

ERM/GOLDER Los Alamos Project Team

To: Garry Allen, CST-18, MS E525
From: Derek Faulk, ERM/Golder, MS M327 
Date: 25 August 1995
Re: Draft VCA Plan for SWMU 19-002

ERM/Golder is pleased to submit the revised draft VCA Plan for SWMU 19-002, Surface Disposal Site. This draft incorporates comments from Jan Novak, Field Unit 1 Field Operations Manager, and Bonnie Koch, DOE. Please review the plan and forward it to Bonnie or Ted Taylor at DOE-LAAO for their approval.

Call me at 662-3700 if you have any questions.

cc: Al Funk
Jan Novak
Project File D9588.8.1.2



1582

LANL
HSL
ECL
TA 19
VII

Don K. [unclear]
Barbara

LOS ALAMOS NATIONAL LABORATORY
ENVIRONMENTAL RESTORATION PROJECT
VOLUNTARY CORRECTIVE ACTION PLAN

for

VCA

DEBRIS REMOVAL at
SOLID WASTE MANAGEMENT UNIT
19-002 Surface Disposal Area

Teri ✓
Susan ✓

*In this material industrial
solid waste & not classified
as hazardous waste under
HCS waste identification
rules?*

24 August 1995
Revision 0

*Discard with
main 19-002*

FIELD WORK APPROVAL FORM

This form must be completed prior to starting remediation field work in accordance with Voluntary Corrective Action Plans.

I, _____, DOE-LAAO, **approve** the field work as proposed in the accompanying Voluntary Corrective Action Plan for Potential Release Site 19-002, TA-19.

I, _____, DOE-LAAO, **do not approve** the field work as proposed in the accompanying Voluntary Corrective Action Plan for Potential Release Site 19-002, TA-19.

The following reasons reflect the decision for disapproval:

Signed: _____ Date: _____

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1.0 INTRODUCTION

This Voluntary Correction Action (VCA) Plan addresses Solid Waste Management Unit (SWMU) 19-002, Surface Disposal Area. The SWMU is located within the Department of Energy boundaries on the north-facing wall of Pueblo Canyon immediately north of the former Technical Area 19 (TA-19), the former East Gate Laboratory (Figure 1).

Former TA-19, which originally consisted of a laboratory building and a storage hutment, was constructed in 1944 for experimental work on small sources that included spontaneous fission experiments. More buildings were added until the site consisted of a laboratory, battery building, guard building, latrine, retreat building, septic tank, and shelter building.

The battery building, guard building, and latrine were removed in 1956. In 1962, the laboratory, retreat building, and shelter building were transferred to the Zia Company. A 1987 Comprehensive Environmental Assessment and Response Program field survey indicated that the rest of the buildings had been removed and all that remained was the septic tank. The battery and concrete debris remaining at the site was generated during decommissioning of TA-19 structures.

This VCA plan is being proposed as part of the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) process as recommended in the approved RFI Work Plan for Operable Unit 1071. The VCA is a good housekeeping initiative as the battery and concrete debris is located on the surface and the task will only involve removal of this debris.

2.0 SITE TYPE AND DESCRIPTION

Battery and concrete debris from decommissioned TA-19 structures have been dumped along the north-facing wall of Pueblo Canyon, immediately north of the former TA-19. There are three types of battery material present at the site:

- Two sizes of round dry cell batteries are found at this site. The larger batteries are approximately 1 inch in diameter and 3-1/2 to 4 inches long. The smaller batteries are approximately 1/2 inch in diameter and 2-1/2 inches long. The material within both battery types is black and brittle. Many of the large batteries are found in sets of 12 encased within cardboard-like containers, although many single batteries are also found about the site. A few single small batteries are found at the site, however, most are found in groups of 16 to 20 encased within cardboard-like containers.
- Batteries composed of vertical plates having dimensions of approximately 4 inches by 4 inches by 1/4 inch thick are also found at the site. Most of these batteries are found encased in cardboard-like containers. The material

*Lead
acid -
Zinc
acid
batteries -
or
Cadmium
nickel &
or what*

between the metal plates appears to be the same material found in the round batteries, but less brittle.

- Tar-like material is also found at the site, and appears to be derived mainly from the interior of the plate batteries. This material is pliable, brownish-black, and has a glossy interior.

Archival information indicates that the site was used for a variety of experiments, most of which utilized radioactive sources, including a 300-Ci cobalt-60 source. Archival information does not indicate that solvents were used for degreasing purposes, although one report states that trimethyl borate was mixed with toluene and other materials for experiments.

In June 1995, three samples were collected from SWMU 19-002 for waste characterization purposes. The first sample was a composite of the three battery material types found at the site. Two soil samples were collected from sediment catchment basins immediately below two of the major battery collections at the site. All three samples were sent to a fixed laboratory for a suite of analyses that included total metals, Toxicity Characteristic Leaching Procedure (TCLP) (one sample only), semivolatile organic compounds (SVOCs), volatile organic compounds (VOCs), and gamma spectroscopy analysis.

Analytical results of the battery and soil samples indicate that total lead is present in concentrations above background levels in one soil sample and several organic constituents are present above detection limits but below quantitation limits. Total lead was detected in one soil sample at a concentration of 282 parts per million (ppm). The sample was analyzed for lead by the TCLP, which indicated lead was present at a concentration of 0.629 ppm. The lead and the organic compounds concentrations are below their respective Los Alamos National Laboratory Screening Action Levels for soil.

Methylene chloride was identified as a laboratory contaminant. It is likely that acetone, trichlorotrifluoroethane, and trichlorofluoromethane are also laboratory contaminants, although these analytes were not present in QC blank samples. Acetone is a very common laboratory contaminant. Trichlorotrifluoroethane and trichlorofluoromethane are refrigerants and it is not unusual for samples to absorb these compounds while stored in a laboratory refrigerator. Historical information indicates that toluene was mixed with trimethyl borate in some experiments. The information does not indicate the use of toluene or any other volatile organic compound as a solvent. Gamma spectroscopy results for the soil samples indicated that no radioactive constituents are present in the soil above regional background activities.

Two samples of concrete were collected and analyzed for radionuclides. Potassium-40, a naturally occurring radioisotope, was detected at background levels in the concrete. No other radionuclides were detected.

In July 1995, five additional soil samples were collected from areas immediately surrounding battery piles and from first-order drainage channels. These samples were analyzed for total metals by X-Ray Fluorescence (XRF) to compare metals concentrations to the analytical results of the first phase of sampling. Results of the XRF analyses indicated that lead is present in concentrations equivalent to background levels in four of the five samples. Total lead was detected in one sample at a concentration of 172 ppm.

Eleven soil samples, including one duplicate collected for QA/QC purposes, were then collected and analyzed for VOCs. Analytical results of the samples indicated that no VOCs were present in any of the samples in concentrations above analytical detection limits.

3.0 PROPOSED REMEDY INCLUDING CLEAN UP LEVELS AND LAND USE ASSUMPTIONS

The remediation of SWMU 19-002 will be accomplished by first performing a site reconnaissance to define the extent of the concrete and battery debris at the site. Boundaries at the site will be flagged for subsequent geodetic surveying. Corrective actions to be taken at this site will include removal of all concrete debris and battery debris. The majority of the battery debris may easily be gathered by hand, however, some batteries are partially buried and will require minor excavation with a shovel or trowel to remove them.

The concrete and battery materials will be hoisted to the canyon rim with the use of a 40-ton crane. A metal box or "basket" will be attached to the end of the crane's cable to carry the debris to the top of the mesa. The concrete and battery materials will be placed into a 10-cubic yard dump truck for transport to the Los Alamos County Landfill for disposal. All work will be in compliance with Environmental Restoration (ER) Project standard operating procedures (SOPs).

*in this acceptable?
it OK
to handle
in front of
why not
OK to
lead in place
?*

Future land use within the Department of Energy boundary is slated as industrial but will be very limited due to the nature of the steep cliffs and benches associated with Pueblo Canyon. This area may potentially be used for recreational hiking.

4.0 JUSTIFICATION/RATIONALE FOR THE ACTION

The VCA process is intended to address small-scale SWMUs/PRSSs with relatively low-risk contamination problems where an obvious remedy may be implemented with a minimum of administrative requirements. These sites are typically cleaned up as part of a normal facility housekeeping or as best management practices. SWMU 19-002 meets the following justification criteria:

- The removal of the concrete and battery debris is an obvious and final remedy and can readily be applied.

- Previous sampling data identified no COPCs that are a risk to human health and the environment.
- Mixed wastes will not be generated.
- Estimated cost to complete the action is <\$100K.
- Time required to complete the cleanup is <30 days

5.0 ESTIMATED WASTE VOLUMES BY TYPE

The debris at SWMU 19-002 consists of battery material and concrete debris. Current volume estimates for the battery and concrete debris is 1 yd³ and 2 yd³, respectively.

6.0 DESCRIPTION OF CONFIRMATORY/VERIFICATION SAMPLING

Upon removal of all visible concrete and battery debris, confirmatory/verification sampling will not be performed.

7.0 ESTIMATED TIME AND ASSOCIATED COST TO COMPLETE

The removal of concrete and battery debris is estimated to take a maximum of 5 days. Total anticipated costs for SWMU 19-002 is \$30,500.

Pre-Field Activities

Document preparation and Readiness Review	\$10,000
Equipment rental/purchase	<u>500</u>
Subtotal	\$10,500

Field Activities

Field Team	\$10,000
Subcontractor	2,000
Geodetic Surveying	<u>2,700</u>
Subtotal	\$14,700

Analytical Costs

XRF and VOC analyses	\$2,200
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Post-Field Activities

VCA final report & RPF Submittal	\$3,000
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Disposal Costs

Disposal at LA County Landfill	<u>\$100</u>
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TOTAL ESTIMATED COST **\$30,500**

WASTE CHARACTERIZATION STRATEGY
(Currently under Review)

SITE-SPECIFIC HEALTH AND SAFETY PLAN

ER PROJECT SHORT FORM SSHASP

SSHASP Number 087

Location Former TA-19, SWMU 19-002 Field Unit #1

Task Name VCA for SWMU 19-002 (Surface Disposal Area) Date _____

SSO Approval [Signature] Date 8/10/95

Field Project Leader Approval [Signature] Date 18 Aug 95

Field Unit HS Rep. Approval [Signature] Date 8/11/95

ESH-1 ER/D&D Team Leader [Signature] Date 8/11/95

Subcontractor HS Approval [Signature] Date 8/15/95 DHF
8/15/95

Facility Representative Concurrence N/A Date _____

Health and Safety Representative _____ Date _____

Key Personnel

Facility Representative N/A Phone/Pager _____

Field Team Manager Derek Faulk Phone/Cellular 662-3700/470-4969

Field Team Leader Kevin Kinsella Phone/Cellular 661-6220/470-0882

Site Safety Officer Bill Holland Phone/Pager 662-3700/820-4445

RCT/HPT/RSP N/A Phone/Cellular _____

Field Unit HS Representative Joe Louck Phone/Pager 665-5669/104-6959

ESH-1 Oversight Marty Peifer Phone/Pager 667-0083/104-6649

Health and Safety Representative Rick Haaker Phone/Pager 662-3700/N/A

Task Description

A site reconnaissance will be performed and boundaries flagged to define the extent of battery/concrete debris. All concrete and battery debris will be removed and placed in an appropriate storage area until disposal can be arranged. "All soil immediately surrounding battery debris will be removed to ensure all battery material has been removed". Some of the batteries are partially buried and will have to be excavated using shovels and hand trowels. All debris will be hoisted to the canyon rim using a 40-ton crane. Time to complete this remedial activity is one week.

Hazard Analysis

List all chemical, biological, physical, and radiological hazards associated with this task including hazard assessment ratings (ER Project HASP, Appendix C).

- Chemical: All chemicals and metals detected at the site are negligible. All are below SAL and are unlikely to cause injury/illness. No chemicals will be brought on-site. See attached table for a complete list of sample analytical results above detection limits.
- Biological: Hantavirus, snakes, spiders, ticks are rated as minor, and possibly could occur resulting in reversible harm. Bloodborne pathogens are rated as serious because exposure to Hepatitis B or HIV/AIDs could occur during first aid.
- Physical: Uneven terrain, slips, trips and falls less than and greater than 4 feet - moderate; injury possibly could occur resulting in irreversible harm. Use of 40-ton crane to haul concrete and battery debris to the mesa top - minor; injury possibly could occur causing reversible harm. Heavy lifting of concrete debris- minor; injury possibly could occur causing reversible harm. Overhead hazard from falling and sliding rocks - minor; injury possibly could occur causing reversible harm. Lightning - minor; injury unlikely to occur but could cause irreversible harm. Heat stress - negligible; unlikely to occur.
- Radiological: Radiation on-site is at background levels. Exposure to radiation is unlikely to occur.

List all other associated Special Work Permits/Procedures and Number N/A
(include RWP, SWP, CSP, LO/TO, Spark/Flame, etc.)

Will task affect other LANL operations, other employees, or other tasks? No X Yes

If yes, explain precautions taken and contacts notified N/A

Hazard Controls

Engineering/Administrative Controls, Special Equipment, etc. Biological hazards will be discussed at daily health and safety tailgate meetings. Visual inspections will also be made before work begins for the presence of snakes, nuisance insects and site conditions. A bloodborne pathogen kit will be kept on site at all times and will be used to administer first aid if necessary. Physical hazards will be addressed at daily health and safety tailgate meetings. Slips, trips and falls less than and greater than 4 feet will be emphasized at the pre-SSHASP meeting and at daily health and safety tailgate meetings. Flagging will be used where appropriate to warn workers of dangerous areas where the possibility of falls greater than 4 feet exists. Fencing will also be used in these areas as necessary to assist in worker safety. Crane safety will be discussed at daily health and safety tailgate meetings. When debris is lifted to the mesa top, all workers will first be required to stop work and leave the work area directly below the crane. Work will not resume until all debris is safely off-loaded on the mesa top and the O.K. is given by the site safety officer to resume work. Daily inspections of the crane will be documented. Proper lifting techniques and lifting limits will be discussed at daily health and safety meetings. Overhead hazards(falling and sliding rock) will be discussed in daily health and safety tailgate meetings. Warning tape will be strung along the top of the mesa approximately 3 feet from the edge of the cliff to help prevent rocks from being knocked into the work area below. Workers in the site will be required to use the buddy system to ensure that falling rocks and debris that are not knocked loose by one worker will not strike other workers

downslope. Lightning will be discussed at daily health and safety tailgate meetings. If lightning is observed within 5 miles of the site, all work will stop and workers will evacuate to the mesa top to seek appropriate shelter. Heat stress will be discussed at daily health and safety tailgate meetings and monitored per ERM/Golder Technical Bulletin #1 on heat stress. Lead hazard communication information will be provided to site workers prior to commencement of work.

Additional Comments Attached: Yes ___ No X

PPE (Personal Protective Equipment)

Head	Hard hats
Face & Eye	Safety glasses with sideshields
Gloves	Cotton work-gloves to be disposed of at end of remedial activities.
Hearing	N/A
Body	Level D work clothes
Foot	Steel-toe boots
Respiratory:	Type of Respirator <u>N/A</u> Type of Cartridge <u>N/A</u>

Additional Protection/Comments None

Monitoring

List all personnel and area monitoring to be performed for this task, including action levels and equipment to be used, and any dosimetry requirements.

Chemical: Chemical monitoring will not be performed. All chemicals/metals are below SAL.

Biological: Site will be inspected daily for the presence of snakes.

Physical: Heat stress monitoring will be conducted per ERM/Golder Technical Bulletin #1 Heat Stress.

Radiological: N/A

Site Control

Describe how site access and control will be maintained. Attach a site map.

Access to TA-19 will be maintained by roping off the end of the mesa and posting appropriate signing as needed. Access to the work site will be maintained by placing barricade tape and signing across the point on the Hamilton Camp Trail that leads to the work site. Public access to the trail will not be effected. Tape and cones will be used to demarcate work areas. The waste storage area will be demarcated with cones, tape and proper signing. Only authorized personnel will be allowed in the work area.

Decontamination

Describe how decon will be performed and which option will be used (ER Project HASP, Section 8).

Shovels and trowels will be sprayed with Fantastick and wiped with paper towels at the end of remedial activities.

Spill Containment

Unless site personnel are trained to the first responder operations level, all site spills will be handled by LANL Emergency Management and Response (EM&R).

Emergency Response

Attach an emergency call-out list and a route to ESH-2/LAMC.

First-Aid/CPR Provider: Kevin Kinsella (FTL), Bill Holland (SSO)

Communications: Cellular phone, hand signals, air horn will be present on-site at all times.

Incident Response Equipment: Approved first aid kit, 15- minute eyewash station and blood borne pathogen kit will be kept on-site at all times.

Fire Extinguishing Equipment: 20 lb fire extinguisher will be kept on-site at all times.

Medical Surveillance

List all medical surveillance required for this task (ER Project HASP, Section 11).

No special medical monitoring required beyond standard HAZWOPER physical. Fitness for duty record for each field team member will be kept on-site.

Training Requirements

Attach a copy of an appropriate training matrix (ER Project HASP, Section 10).

Participant Acknowledgment: (Per ER Project HASP, Sections 1.2 and 10.1.3)

Pre-job Conference: *Date/Initials* _____

Printed Name	Z Number	Signature	Date
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_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
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_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Printed Name

Z Number

Signature

Date

EMERGENCY CONTACTS AND PHONE NUMBERS

Former TA-19 SWMU 19-002

MEDICAL EMERGENCY/FIRE

Los Alamos Fire Dept 667-7080

HAZARDOUS RELEASE/SPILL

LANL HAZMAT Team (EM&R) 667-6211

LANL Occupational Medicine Clinic (ESH) 667-7848

Los Alamos Medical Center Hospital 662-2455

Security OS/Pro Force 667-6534

Los Alamos Police 662-8222

LANL Health and Safety ESH-5 665-7221

LANL Radiation ESH-1 667-7137

FPL: Garry Allen 667-3394

FTM: Derek Faulk 662-3700/470-4969

FTL: Kevin Kinsella 661-6220/470-0882

Field Unit HS Rep: Joe Louck 665-5669/104-6959

Field Unit ESH-1 Rep: Marty Peifer 667-0083/104-6649

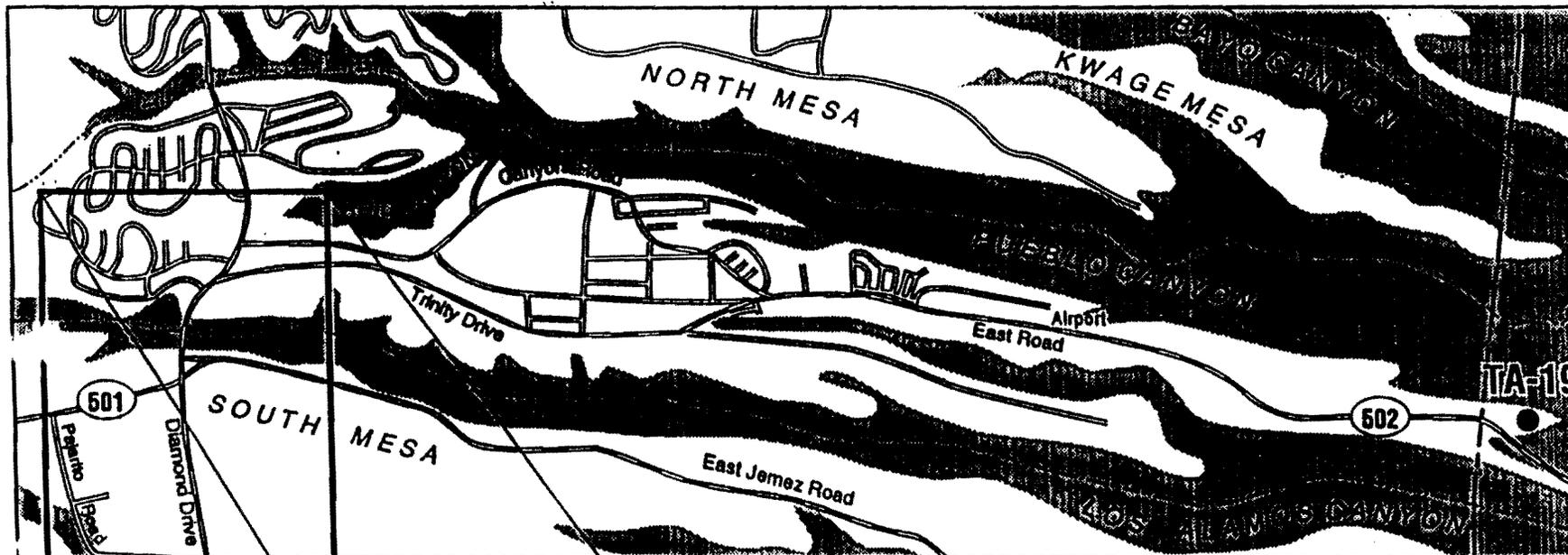
Management Contacts:

ERM/Golder: Al Funk and John Williams 662-3700

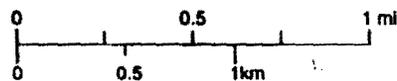
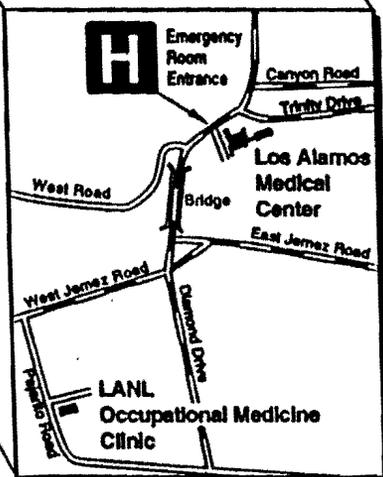
EMERGENCY REPORTING INFORMATION:

When calling for emergency services, have the following information available to report:

- Site name/location/phone #
- Caller ID
- Nature of emergency
- Number of personnel involved
- Name and condition of affected employees
- Actions taken and assistance required



cARTography by A. Kron 7/31/95



Routes to Emergency Services
 Important phone numbers:
 662-2455, LAMC Hospital
 667-7848, Occupational Medicine Clinic (ESH-2)
 NOTE: For non-emergencies, go first
 to LANL Occupational Medicine Clinic

Fig. 2. Route to Los Alamos Medical Center and ESH-2.

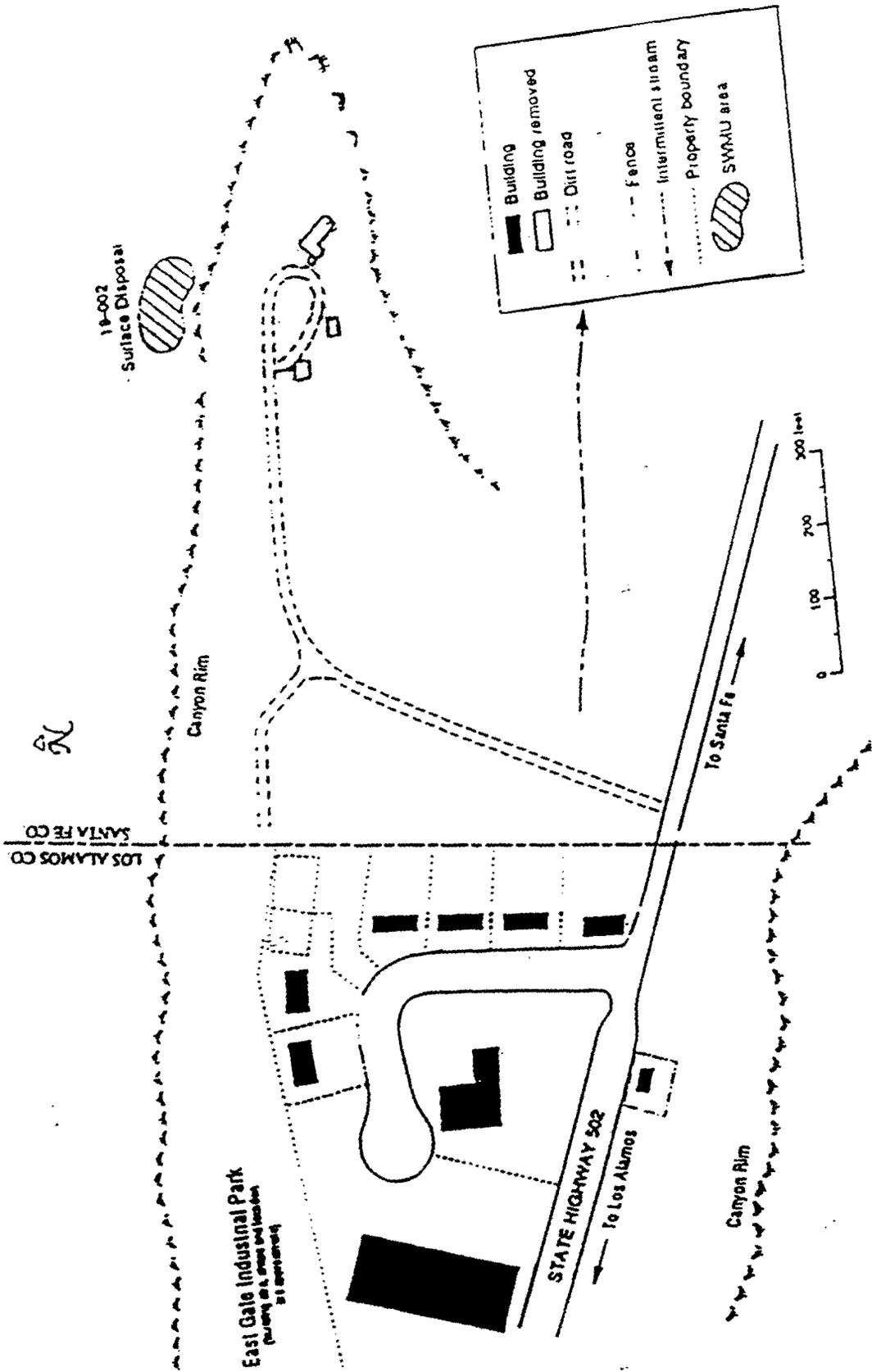


FIGURE 1 SWMU Group 19-1 (EAST GATE LABORATORY)

**SWMU 19-002, Surface Disposal Area
Analytical Results Above Detection Limits**

Analytical Constituent	Battery Material 0119-95-0001 Concentration (mg/kg)	Soil Sample Location 1 0119-95- 0002 Concentration (mg/kg)	Soil Sample Location 2 0119-95- 0003 Concentration (mg/kg)	Screening Action Level (mg/kg)
Lead		282		400
Acetone	0.069			8000
Methylene chloride		0.003 JB		5.6
Trichlorotrifluoroethane	0.009 J	0.003 J	0.005	None
Trichlorofluoromethane	0.003			24000
1,1,1-Trichloroethane	0.004 J			1000
Toluene	0.19	0.028	0.33	910
TIC (Hexane)	2.1 J	0.17 J	2.3 J	4800
TIC (2-methyl pentane)	0.28 J		0.14 J	None
TIC (3-methyl pentane)	0.37 J	0.006 J	0.6 J	None
TIC (Methyl cyclopentane)	0.82 J	0.1 J	1.1 J	None
Phenanthrene		0.19 J		None
Fluoranthene		0.19 J		3200
Pyrene	0.77	0.22		2400
Chrysene		0.12 J		96
Bis(2-ethylhexyl)phthalate		0.07 J		50
Benzo(b)fluoranthene		0.092 J		1
TICs (straight chain hydrocarbons)	320 J	6.6 J	0.97 J	None

J - Constituent was identified above detection limits but below quantitation limits, therefore is qualified as an estimated quantity.

B - Constituent was identified in laboratory QC blanks.

TIC - Tentatively Identified Compounds

TRAINING REQUIREMENTS

(Sup = Supervisors; CP = Competent Person for that subject, which in some cases may be the user only; R = Read training; C = Classroom training; F = Field training; AN = As needed per the HASP or applicable regulatory requirement; ER = Employer required)

Applicable Task(s): All

Training Requirement	Personnel Role														
	FPL	FTM	FTL	SSO	RSP	Srvyr	FT	WM	Crane O	Othr	Othr	Othr	Othr	Othr	
HASP	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
SSHASP	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
Pre- Job Start HS Briefing (per Section 10.1 of HASP)	F or C	F or C	F or C	F or C	F or C	F or C	F or C	F or C	F or C	F or C	F or C	F or C	F or C	F or C	
Daily HS Tailgate Mtgs (per Section 10.2 of HASP)	F	F	F	F	F	F	F	F	F	F	F	F	F	F	
<input type="checkbox"/> TA-Specific <i>[Provided by TA Rep. for all personnel working on site]</i>															
General Employee Training (GET) - LANL provided only <i>[Required for anyone on site >10 consecutive work days]</i>	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
Conduct of Operations & Occurrence Reporting	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
OSHA Rights & Responsibilities	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
Health Physics Checklist Indoctrination	C	C	C	C	C	AN	AN	AN	AN	AN	AN	AN	AN	AN	
40 hr. HAZWOPER <i>[per 29 CFR 1926.65(e)(3)(i)]</i>	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	
24 hr. Supervised Fieldwork <i>[per 29 CFR 1926.65(e)(3)(i)]</i>	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	
<input type="checkbox"/> 24 hr. HAZWOPER <i>[per 29 CFR 1926.65(e)(3)(ii-iv)]</i>						AN									
<input type="checkbox"/> 8 hr. Supervised Fieldwork <i>[per 29 CFR 1926.65(e)(3)(ii-iv)]</i>						AN									

Applicable Task(s): All														
Requirement	Personnel													
	FPL	FTM	FTL	SSO	RSP	Srvyr	FT	WM	Crane O	Othr	Othr	Othr	Othr	Othr
8 hr. Annual Refresher [per 29 CFR 1926.65(e)(8)]	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN	AN
8 hr. HAZWOPER Supervisor [per 29 CFR 1926.65(e)(4)]		AN	AN	AN										
<input type="checkbox"/> SSO [per Section 10.1.1.5 of the HASP]				F/C										
<input type="checkbox"/> IHT [per Section 10.1.1.6 of the HASP]														
<input type="checkbox"/> Health Physics Personnel [per Section 10.1.1.7 of the HASP]					F/C									
1st Aid (Amer. Red Cross or equiv.) [per 29 CFR 1926.50(c)]				C										
CPR (Amer. Red Cross or equiv.)				C										
Employer's Hazard Communication Program [29 CFR 1926.59(e)]	ER	ER	ER	ER	ER	ER	ER	ER	ER					
<input type="checkbox"/> First Responder Awareness Level [per 1926.65(q)(6)(i)]		C	C	C	C	C	C	C	C	C	C	C	C	C
<input type="checkbox"/> First Responder Operations Level [per 1926.65(q)(6)(ii)]			AN	AN										
Fire Extinguisher Use [per 29 CFR 1926.150(c)(1)(xi)]			R	R										
<input type="checkbox"/> Fire Fighting Equipment [29 CFR 1926.150]				R										
PPE (per Section 7.1 of HASP)		For C	For C	For C	For C	For C	For C							
<input type="checkbox"/> Hearing Conservation [Per Section 4.2.2.7 of HASP]		C	C	C	C	C	C	C	C					
Sanitation [29 CFR 1926.51]				R										

Applicable Task(s): All

Priority Requirement	Requirement													
	FPL	FTM	FTL	SSO	RSP	Srvyr	FT	WM	Crane O	Othr	Othr	Othr	Othr	Othr
<input type="checkbox"/> Materials Handling, Storage, Use, Disposal <i>[29 CFR 1926.250 and 252]</i>				R										
Signs, Signals, Barricades <i>[29 CFR 1926.200]</i>				R										
<input type="checkbox"/> Traffic Flagging and Safety <i>[29 CFR 1926.201]</i>														
<input type="checkbox"/> Stairways, Ladders <i>[29 CFR 1926.1060(a) and 1053(b)(15) and 32(f)]</i>				R										
<input type="checkbox"/> Tools - Hand and Power <i>[29 CFR 1926.302(e)(1)]</i>				R										
<input type="checkbox"/> Excavation/Trenching Competent Person <i>[29 CFR 1926.651(k)(1) and 32(f)]</i>														
<input type="checkbox"/> Excavation/Trenching Protective Systems Competent Person <i>[29 CFR 1926.652(a)(ii) and 32(f)]</i>														
<input type="checkbox"/> Electrical Safety Awareness <i>[Subpart K of 29 CFR 1926]</i>														
<input type="checkbox"/> Motor Vehicles, Mechanized Equipment, and/or Material Handling Equipment <i>[specify equip. type and training requirement per Subparts O and W of 29 CFR 1926]</i>				R										
<input type="checkbox"/> Crane & Rigging Operator Safety [ANSI B30]				R					R/C					
<input type="checkbox"/> Crane & Rigging Safety <i>[29 CFR 1926.251, 406, 550(a)]</i>				R					R/C					
<input type="checkbox"/> Hoists <i>[29 CFR 1926.406, 552]</i>				R					R/C					
<input type="checkbox"/> Scaffolding <i>[29 CFR 1926.451(a)(3) and 32(f)]</i>														

Applicable Task(s): All														
Requirement	Personnel													
	FPL	FTM	FTL	SSO	RSP	Svyr	FT	WM	Crane O	Othr	Othr	Othr	Othr	Othr
<input type="checkbox"/> Bloodborne Pathogens [29 CFR 1910.1030]			F/C	F/C										
<input type="checkbox"/> Lead [29 CFR 1926.62]														
<input type="checkbox"/> Other (specify):														