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Request for Permit Modification

Units Proposed for NFA

September 1995

A Department of Energy
Environmental Cleanup
Program

Los Alamos
NATIONAL LABORATORY

LA-UR-95-3319

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ACRONYMS AND ABBREVIATIONS

Some of the acronyms and abbreviations included in the following list require further definitions. In those cases, the definitions are included in parentheses.

AOC	Area of concern (A site that potentially contains hazardous substances, such as radionuclides, but no hazardous constituents defined by the Resource Conservation and Recovery Act.)
CEARP	Comprehensive Environmental Assessment and Response Program
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CMP	Corrugated metal pipe
COC	Contaminant of concern (Any constituent present in environmental media or on structural debris at a concentration that may present a risk to human health or the environment.)
D&D	Decontamination and decommissioning (Decontamination: The removal of unwanted material [especially radioactive material] from the surface of or from within another material. Decommissioning: The permanent removal from service of surface facilities and components necessary for procedure activities only, after facility closure, in accordance with regulatory requirements and environmental policies.)
DA	Deferred action (Postponement of selection and implementation of corrective measures until a future date, usually following decommissioning of an active site.)
DDT	Dichloro diphenyl trichloroethane (a pesticide)
DOE	US Department of Energy
EM	Environmental Management (Division)
EM-7	Waste Management Group (now CST-7)
EM-8	Environmental Protection Group (now ESH-19)
EPA	US Environmental Protection Agency
ER	Environmental restoration (A term used to describe cleanup of federal facility lands according to a process laid out in RCRA. "Restoration" does not necessarily imply cleaning up a site to its original or pristine condition; rather, it denotes cleaning up a site to a level suitable for the site's future intended use. In some cases [sites identified as needing no further action], the site is considered restored without any cleanup.)
ERIA	Environmental Restoration Interim Action
HE	High explosive
HSE	Health, Safety, and Environment (Division) (now ESH Division)
HSE-7	Waste Management Group (now CST-7)

HSE-9	Environmental Chemistry Group
HSWA	Hazardous and Solid Waste Amendments of 1984
IWP	Installation work plan (A master plan for the ER Project that is updated annually. It contains information mandated in the Laboratory's permit to operate under RCRA, including several plans, one of which is a public involvement plan. Required information that applies projectwide is provided in this document so that it will not need to be repeated in each of the work plans for the 24 operable units.)
JCI	Johnson Controls World Services Inc.
LANL	Los Alamos National Laboratory
LANSCE	Los Alamos Neutron Scattering Center
LASCP	Los Alamos Site Characterization Program
LASL	Los Alamos Scientific Laboratory
MDA	Material disposal area (An area used any time between the beginning of Laboratory operations in the early 1940s and the present for disposing of chemically and/or radioactively contaminated materials.)
NFA	No further action (A decision that no further investigation or remediation is warranted for a PRS, based on risk levels for residential use, recreational use, or industrial use.)
NMED	New Mexico Environment Department
NOD	Notice of deficiency (A notice issued to DOE and the Laboratory by EPA stating that some aspect[s] of a plan or report does not meet EPA requirements. The ER Project must then propose a solution acceptable to EPA before the plan or report will be approved.)
NPDES	National pollutant discharge elimination system
NTS	Nevada Test Site
OU	Operable unit (A discrete action that composes an incremental step toward comprehensively addressing site problems. This discrete portion of a remedial response manages migration or eliminates or mitigates a release, threat of release, or pathway of exposure. The cleanup of a site can be divided into a number of operable units, depending on the complexity of the problems associated with the site. Operable units may address geographical portions of a site, specific site problems, or initial phases of an action, or may consist of any set of actions performed over time or any actions that are concurrent but located in different parts of a site.)
PAH	Polyaromatic hydrocarbon
PCB	Polychlorinated biphenyl
PRS	Potential release site (A site suspected of releasing contaminants into the environment. The ER Project has responsibility for investigating and, if necessary, cleaning up such sites on and around the Laboratory site. PRS is a generic term that includes SWMUs [hazardous waste sites listed in the HSWA

	Module] and sites that have been identified as potentially contaminated by radioactivity.)
PVC	Polyvinyl chloride
RCRA	Resource Conservation and Recovery Act
RFI	RCRA facility investigation (Investigative and analytical studies performed to gather the data necessary to determine the type and extent of contamination at a potential release site.)
SAL	Screening action level (Media-specific concentration levels for constituents derived using conservative intake assumptions and used during the RCRA field investigation, primarily to identify contaminants of concern.)
SOP	Standard operating procedure
SVOC	Semivolatile organic compound (An organic compound that can be extracted from soil or water samples, using the appropriate solvents.)
SWMU	Solid waste management unit (Any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at or around a facility at which solid wastes have been routinely and systematically released.)
TA	Technical area (The Laboratory established technical areas as administrative units for all its operations. There are currently 49 active TAs spread over 43 square miles.)
TCLP	Toxicity characteristic leaching procedure (A test that measures the mobility of organic and inorganic chemical contaminants in wastes. The test, designed by the United States Environmental Protection Agency, produces an estimate of the potential for leachate formation by a waste if it is placed in the ground.)
TIC	Tentatively identified compound
TMCR	Total multiple constituents ratio
TSCA	Toxic Substances Control Act
UHTREX	Ultra-high-temperature reactor experiment
UST	Underground storage tank
UTL	Upper tolerance level
VCP	Vitrified clay pipe
VOC	Volatile organic compound (An organic [carbon-containing] compound that evaporates [volatilizes] readily at room temperature.)
W	Weapon Nuclear Engineering (Division) (from 1948-1972)
W-3	Gun Device Engineering Group
WNR	Weapons Neutron Research

WX	Design Engineering (Division)
WX-12	Engineering and Information Resources Group

1.0 INTRODUCTION

The Los Alamos National Laboratory's (Laboratory's) Environmental Restoration (ER) Project has successfully investigated and recommended an additional 209 sites for no further action (NFA) within the Resource Conservation and Recovery Act (RCRA) facility investigation (RFI) work plans and RFI reports.

After reviewing 24 out of the 26 RFI work plans submitted by the ER Project, the Environmental Protection Agency (EPA) has indicated that the Laboratory may request a Class III permit modification for removal of solid waste management units (SWMUs) from the Hazardous and Solid Waste Amendments (HSWA) Module of the Laboratory's operating permit. The EPA has also reviewed areas of concern (AOCs) that do not warrant further investigation and need not be added to the permit. The removal of these 209 units is a result of both field and archival investigations as well as site cleanups performed by the Laboratory. The ER Project refers to SWMUs and AOCs collectively as potential release sites (PRSs).

This document contains the necessary information to support the request to the EPA for a Class III permit modification removing 59 SWMUs from the HSWA Module. It also contains sufficient information to justify and receive acceptance from the US Department of Energy (DOE) and other stakeholders for the removal of 150 AOCs from further consideration by the ER Project.

Chapter 1 includes explanations of the criteria used for recommending the PRSs for NFA and two tables providing lists of the PRSs that meet those criteria. Chapter 2 provides a description of each PRS, the rationale for the recommendation, and the date on which the EPA reviewed the Laboratory's decision for NFA. Maps showing the locations of the PRSs are located in Appendix A; the maps are arranged numerically according to technical area. The Laboratory's requested modifications to Tables A, B, and C of the HSWA Module are included in Appendix B. Proposed Tables A, B, and C of the Laboratory's HSWA Module are included in Appendix C. Records pertaining to this modification request are kept on file at the ER Project's Records-Processing Facility.

1.1 Criteria for Proposing No Further Action

The criteria for proposing no further action for potential release sites within the Laboratory's ER Project are listed below. The designation of NFA is a regulatory term. However, in this instance, the same NFA criteria will be used to delist both the SWMUs identified in the HSWA Module as well as the units not identified in the permit, referred to as AOCs. By using the same criteria, the ER Project can ensure the EPA, the New Mexico Environment Department, the DOE, the public, and other interested stakeholders that the same standards were used in investigating all potentially contaminated sites within the Project.

1.1.1 NFA Criterion 1

The PRS has never been used for the management (that is, generation, treatment, storage, or disposal) of RCRA solid or hazardous wastes and/or constituents, radionuclides, or other Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) hazardous substances. Also falling under Criterion 1 are those PRSs that cannot be located or may have been found never to have existed, duplicate PRSs, and those that are located within and therefore investigated as a part of another PRS.

Examples/Explanations. For purposes of the HSWA Module of the RCRA permit, units falling under Criterion 1 may have been mistakenly identified as SWMUs in an earlier study. If a unit has only a radionuclide component, then the site may be requested for an NFA determination, and a permit modification request may be submitted to remove it from the HSWA Module. The unit may still be investigated as an AOC by the ER Project.

1.1.2 NFA Criterion 2

No release to the environment has occurred.

Definition of release. "Release" means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes (including hazardous constituents) into the environment.

Examples/Explanations. Units falling under Criterion 2 are those where no release has occurred, or where a release of any hazardous constituents to the environment may be unlikely due to the engineering (secondary containment or overflow prevention) or management (inspection or inventory) controls. For example, if a unit is completely contained within a building with no migration route to the environment, a visual inspection of the unit may be satisfactory for documentation of no release.

1.1.3 NFA Criterion 3

The PRS is regulated or closed under a different authority which addresses corrective action.

Examples/Explanations. Non-land-based treatment, storage, and disposal facilities (such as containers or tanks) should not be considered under RCRA corrective action because requirements under interim status, the Laboratory's operating permit, and RCRA generator requirements will adequately address releases from these units.

Temporary storage areas in use since 1980 (less-than-90-day and satellite storage areas) must operate according to 40 CFR 262, which requires that the units be routinely inspected and closed according to 40 CFR 265. To avoid further investigation by the ER Project, engineering and management controls must be present. If there is evidence of a possible release, whether visual staining, vapor releases, or analytical data indicating a release has occurred (and remediation has not been accomplished) and if the unit qualifies under the HSWA Module or under CERCLA, it may undergo corrective action measures within the ER Project.

Releases to surface water through a storm sewer are regulated under the national pollutant discharge elimination system (NPDES) storm water program, and releases through other NPDES-permitted outfalls are also exempt from RCRA. However, an outfall may be permitted under the NPDES program and still be required to be investigated under RCRA corrective action authority. The NPDES permit addresses only the actual water discharge from the outfall and does not address corrective action or remediation of material deposited at the outfall over time. In this instance, the soil at the outfall may need to be sampled.

If a regulated unit is being closed under RCRA authority, then this site will normally not be investigated under the HSWA program.

Even though it may be more expedient and convenient to address all release pathways under corrective action, the State of New Mexico will ultimately have to approve the closure plan for the regulated unit. The EPA can, however, require corrective action beyond closure, if warranted.

1.1.4 NFA Criterion 4

The PRS has been characterized or remediated in accordance with current applicable state or federal regulations, and the available data indicate that contaminants of concern are either not present or are present in concentrations that would pose an acceptable level of risk under the projected future land use. The determination of acceptable risk and future land use has considered stakeholder involvement.

Examples/Explanations. An underground storage tank for which certification of closure has been received from NMED may be requested for NFA under Criterion 4. Another example would be a one-time spill that has been cleaned up in accordance with applicable standards, such as the Spill Prevention Control and Countermeasures (SPCC). A third example would be an expedited cleanup or voluntary corrective action performed in accordance with an approved plan.

Determination that a contaminant is "not present" will be made by comparison with background data. Determinations of "acceptable level of risk" will be based on subsequent comparisons with screening action levels (SALs). Constituents exceeding SALs can be further evaluated in risk assessments based on projected future land use scenarios.

1.2 Lists of Potential Release Sites Recommended for No Further Action

Table 1-1 contains 59 HSWA units that the Laboratory requests be removed from the HSWA Module of the RCRA Permit. Table 1-2 contains 150 AOCs that require no further investigation by the ER Project. Both tables include the PRS identification number, the operable unit (OU) number, the technical area (TA) number, the unit type, the criterion used for recommending NFA, the date on which the EPA reviewed the Laboratory's decision for NFA, and the section number of this document where the PRS description and rationale can be found. The prefix of the PRS number denotes the TA where the PRS exists. For example, PRS 3-001(m) is located at TA-3.

TABLE 1-1

HSWA UNITS RECOMMENDED FOR NO FURTHER ACTION

PRS Number	OU	TA	Unit Type	Criterion Used	EPA Review Date	Document Section	Count
3-001(a)	1114	03	<90 day storage	3	1/7/94	2.1.3.1	1
3-001(b)	1114	03	Satellite storage area	3	1/7/94	2.1.3.1	2
3-001(c)	1114	03	<90 day storage	3	1/7/94	2.1.3.1	3
3-001(k)	1114	03	Storage pad	4	3/6/95	2.1.4.1	4
3-002(b)	1114	03	Storage area	3	1/7/94	2.1.3.2	5
3-003(c)	1114	03	Equipment storage area	4	10/29/93	2.1.4.2	6
3-009(a)	1114	03	Surface disposal	4	3/6/95	2.1.1.1	7
3-009(d)	1114	03	Surface disposal	1	3/6/95	2.1.1.2	8
3-009(h)	1114	03	Surface disposal	1	1/7/94	2.1.1.3	9
3-035(a)	1114	03	Underground tank	3	1/7/94	2.1.3.3	10
3-035(b)	1114	03	Underground storage tank	3	3/0/95	2.1.3.4	11
14-004(b)	1085	14	Satellite storage area	3	12/22/94	2.1.3.5	12
15-007(d)	1088	15	Shaft	3	1/9/95	2.1.3.6	13
15-009(b)	1088	15	Septic tank	1	1/9/95	2.1.1.4	14
15-009(c)	1088	15	Septic tank	1	1/9/95	2.1.1.5	15
15-009(h)	1088	15	Septic tank	1	1/9/95	2.1.1.6	16
15-014(m)	1088	15	Drain line and outfall	3	1/9/95	2.1.3.7	17
16-005(b)	1082	16	Decommissioned septic system	1	10/20/94	2.1.1.7	18

TABLE 1-1

HSWA UNITS RECOMMENDED FOR NO FURTHER ACTION

PRS Number	OU	TA	Unit Type	Criterion Used	EPA Review Date	Document Section	Count
16-005(f)	1082	16	Decommissioned septic system	1	1/18/95	2.1.1.8	19
16-005(l)	1082	16	Septic tank	1	10/20/94	2.1.1.9	20
16-006(l)	1082	16	Septic tank	1	10/20/94	2.1.1.10	21
16-012(a)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	22
16-012(b)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	23
16-012(c)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	24
16-012(e)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	25
16-012(f)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	26
16-012(g)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	27
16-012(h)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	28
16-012(k)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	29
16-012(o)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	30
16-012(q)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	31
16-012(r)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	32
16-012(s)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	33
16-012(v)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	34
16-012(w)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	35
16-012(y)	1082	16	Container storage-Rest House	2	12/22/94	2.1.2.1	36

TABLE 1-1

HSWA UNITS RECOMMENDED FOR NO FURTHER ACTION

PRS Number	OU	TA	Unit Type	Criterion Used	EPA Review Date	Document Section	Count
16-012(z)	1082	16	Container storage–Rest House	2	12/22/94	2.1.2.1	37
16-025(c)	1082	16	Abandoned HE building & appurtenances	1	1/12/95	2.1.1.11	38
16-025(g2)	1082	16	Magazine	2	10/20/94	2.1.2.2	39
16-026(l2)	1082	16	Outfall	1	1/12/95	2.1.1.12	40
16-031(g)	1082	16	Cooling tower outfall	1	10/20/94	2.1.1.13	41
16-032(d)	1082	16	Decommissioned HE sump	1	10/20/94	2.1.1.14	42
16-032(o)	1082	16	Decommissioned HE sump	1	1/12/95	2.1.1.15	43
16-034(g)	1082	16	Soil contamination	1	1/12/95	2.1.1.16	44
21-024(j)	1106	21	Septic system	4	3/6/95	2.1.4.3	45
21-024(k)	1106	21	Septic system	4	3/6/95	2.1.4.4	46
21-024(m)	1106	21	Drain line	4	3/6/95	2.1.4.5	47
21-024(n)	1106	21	Drain line	4	3/6/95	2.1.4.6	48
21-024(o)	1106	21	Drain line	4	3/6/95	2.1.4.7	49
21-027(b)	1106	21	Outfalls	4	3/6/95	2.1.4.8	50
21-027(d)	1106	21	Drain line	4	3/6/95	2.1.4.9	51
33-004(d)	1122	33	Septic system	4	4/24/95	2.1.4.10	52
33-004(g)	1122	33	Outfall	4	4/24/95	2.1.4.11	53
33-004(h)	1122	33	Outfall	4	4/24/95	2.1.4.12	54

TABLE 1-1

HSWA UNITS RECOMMENDED FOR NO FURTHER ACTION

PRS Number	OU	TA	Unit Type	Criterion Used	EPA Review Date	Document Section	Count
33-010(l)	1122	33	Surface disposal	4	4/24/95	2.1.4.13	55
33-011(a)	1122	33	Drum storage	4	4/24/95	2.1.4.14	56
33-012(a)	1122	33	Drum storage	4	4/24/95	2.1.4.15	57
53-007(b)	1100	53	Aboveground tanks	2	12/28/94	2.1.2.3	58
61-007	1114	61	Transformer silo-systematic tank	3	1/7/94	2.1.3.8	59

TABLE 1-2

AREAS OF CONCERN RECOMMENDED FOR NO FURTHER ACTION

PRS Number	OU	TA	Unit Type	Criterion Used	EPA Review Date	Document Section	Count
3-001(m)	1114	03	Satellite storage area	3	1/7/94	2.2.3.1	1
3-001(p)	1114	03	Satellite storage area	3	1/7/94	2.2.3.1	2
3-001(r)	1114	03	Satellite storage area	3	1/7/94	2.2.3.1	3
3-013(c)	1114	03	Operational release	2	1/7/94	2.2.2.1	4
3-044(b)	1114	03	Container storage	3	1/7/94	2.2.3.2	5
C-4-001	1129	04	Former Building Location	2	1/23/95	2.2.2.2	6
5-008(a)	1129	05	Former Building Location	4	1/23/95	2.2.4.1	7
5-008(d)	1129	05	Former Building Location	2	1/23/95	2.2.2.3	8
5-008(f)	1129	05	Former Building Location	2	1/23/95	2.2.2.4	9
5-008(g)	1129	05	Former Building Location	2	1/23/95	2.2.2.4	10
C-5-001	1129	05	Former Building Location	1	1/23/95	2.2.1.1	11
11-010(a)	1082	11	Container storage area	2	12/22/94	2.2.2.5	12
14-004(a)	1085	14	Storage area	3	12/22/94	2.2.3.3	13
14-004(c)	1085	14	Storage area	3	12/22/94	2.2.3.3	14
15-014(f)	1086	15	Outfall	3	1/9/95	2.2.3.4	15
C-15-008	1086	15	Non-intentional release	1	1/9/95	2.2.1.2	16
C-15-012	1086	15	Underground tank	1	1/9/95	2.2.1.3	17
C-15-013	1086	15	Underground tank	3	1/9/95	2.2.3.5	18

TABLE 1-2

AREAS OF CONCERN RECOMMENDED FOR NO FURTHER ACTION

PRS Number	OU	TA	Unit Type	Criterion Used	EPA Review Date	Document Section	Count
16-023(a)	1082	16	Incinerator	1	10/20/94	2.2.1.4	19
16-032(b)	1082	16	Decommissioned HE sump	1	10/20/94	2.2.1.5	20
C-16-003	1082	16	Septic system	1	10/20/94	2.2.1.6	21
C-16-004	1082	16	Building	1	10/20/94	2.2.1.7	22
C-16-007	1082	16	Tank stand	1	10/20/94	2.2.1.8	23
C-16-021	1082	16	Building	1	10/20/94	2.2.1.9	24
C-16-022	1082	16	Building	1	10/20/94	2.2.1.10	25
C-16-023	1082	16	Warehouse	1	10/20/94	2.2.1.11	26
C-16-024	1082	16	Building	1	10/20/94	2.2.1.12	27
C-16-027	1082	16	Building	1	10/20/94	2.2.1.13	28
C-16-029	1082	16	Building	1	10/20/94	2.2.1.14	29
C-16-032	1082	16	Building	1	10/20/94	2.2.1.15	30
C-16-033	1082	16	Warehouse	1	10/20/94	2.2.1.16	31
C-16-037	1082	16	Storage area	1	10/20/94	2.2.1.17	32
C-16-038	1082	16	Storage area	1	10/20/94	2.2.1.18	33
C-16-039	1082	16	Building	1	10/20/94	2.2.1.19	34
C-16-040	1082	16	Building	1	10/20/94	2.2.1.20	35
C-16-042	1082	16	Steam manhole	1	10/20/94	2.2.1.21	36

TABLE 1-2

AREAS OF CONCERN RECOMMENDED FOR NO FURTHER ACTION

PRS Number	OU	TA	Unit Type	Criterion Used	EPA Review Date	Document Section	Count
C-16-043	1082	16	Steam manhole	1	10/20/94	2.2.1.22	37
C-16-045	1082	16	Manhole	1	10/20/94	2.2.1.23	38
C-16-048	1082	16	Steam manhole	1	10/20/94	2.2.1.24	39
C-16-052	1082	16	Steam manhole	1	10/20/94	2.2.1.25	40
C-16-053	1082	16	Water manhole	1	10/20/94	2.2.1.26	41
C-16-054	1082	16	Steam manhole	1	10/20/94	2.2.1.27	42
C-16-055	1082	16	Switch Box	1	10/20/94	2.2.1.28	43
C-16-056	1082	16	Steam manhole	1	10/20/94	2.2.1.29	44
C-16-057	1082	16	Steam manhole	1	10/20/94	2.2.1.30	45
C-16-059	1082	16	Electrical pit	1	10/20/94	2.2.1.31	46
C-16-066	1082	16	Storage area	1	10/20/94	2.2.1.32	47
20-003(d)	1100	20	Firing site	1	12/28/94	2.2.1.33	48
C-20-001	1100	20	Storage building	4	12/28/94	2.2.4.2	49
21-004(d)	1106	21	Drain line	4	3/6/95	2.2.4.3	50
21-008	1106	21	Incinerator	4	3/6/95	2.2.4.4	51
21-019(a)	1106	21	Filter houses/ exhaust stacks	4	3/6/95	2.2.4.5	52
21-019(b)	1106	21	Filter houses/ exhaust stacks	4	3/6/95	2.2.4.5	53
21-019(c)	1106	21	Filter houses/ exhaust stacks	4	3/6/95	2.2.4.5	54

TABLE 1-2

AREAS OF CONCERN RECOMMENDED FOR NO FURTHER ACTION

PRS Number	OU	TA	Unit Type	Criterion Used	EPA Review Date	Document Section	Count
21-019(d)	1106	21	Filter houses/ exhaust stacks	4	3/6/95	2.2.4.5	55
21-019(e)	1106	21	Filter houses/ exhaust stacks	4	3/6/95	2.2.4.5	56
21-019(f)	1106	21	Filter houses/ exhaust stacks	4	3/6/95	2.2.4.5	57
21-019(g)	1106	21	Filter houses/ exhaust stacks	4	3/6/95	2.2.4.5	58
21-019(h)	1106	21	Filter houses/ exhaust stacks	4	3/6/95	2.2.4.5	59
21-019(i)	1106	21	Filter houses/ exhaust stacks	4	3/6/95	2.2.4.5	60
21-019(j)	1106	21	Filter houses/ exhaust stacks	4	3/6/95	2.2.4.5	61
21-019(k)	1106	21	Filter houses/ exhaust stacks	4	3/6/95	2.2.4.5	62
21-019(l)	1106	21	Filter houses/ exhaust stacks	4	3/6/95	2.2.4.5	63
21-019(m)	1106	21	Filter houses/ exhaust stacks	4	3/6/95	2.2.4.5	64
21-020(a)	1106	21	Filter house	4	3/6/95	2.2.4.6	65
21-020(b)	1106	21	Filter house	4	3/6/95	2.2.4.7	66
22-001	1111	22	Building	3	10/19/94	2.2.3.6	67
22-003(a)	1111	22	Satellite storage area	3	10/19/94	2.2.3.7	68
22-003(b)	1111	22	Satellite storage area	3	10/19/94	2.2.3.7	69
22-003(c)	1111	22	Satellite storage area	3	10/19/94	2.2.3.7	70
22-003(d)	1111	22	Satellite storage area	3	10/19/94	2.2.3.7	71
22-003(e)	1111	22	Satellite storage area	3	10/19/94	2.2.3.7	72

TABLE 1-2

AREAS OF CONCERN RECOMMENDED FOR NO FURTHER ACTION

PRS Number	OU	TA	Unit Type	Criterion Used	EPA Review Date	Document Section	Count
22-003(l)	1111	22	Satellite storage area	3	10/19/94	2.2.3.7	73
22-003(g)	1111	22	Satellite storage area	3	10/19/94	2.2.3.7	74
22-013	1111	22	Liquid waste treatment/storage	3	10/19/94	2.2.3.8	75
25-001	1082	25	Pit	1	10/20/94	2.2.1.34	76
C-25-001	1082	25	Building	1	10/20/94	2.2.1.35	77
33-010(e)	1122	33	Surface disposal	4	4/24/95	2.2.4.8	78
35-004(l)	1129	35	Container storage area	2	1/23/95	2.2.2.6	79
35-004(j)	1129	35	Container storage area	1	1/23/95	2.2.1.36	80
35-004(o)	1129	35	Container storage area	2	1/23/95	2.2.2.7	81
35-014(c)	1129	35	Operational release	1	1/23/95	2.2.1.37	82
35-018(b)	1129	35	Former transformer site	2	1/23/95	2.2.2.8	83
C-35-001	1129	35	Former UST site	2	1/23/95	2.2.2.9	84
C-35-002	1129	35	Former UST site	2	1/23/95	2.2.2.9	85
C-35-003	1129	35	Former UST site	2	1/23/95	2.2.2.9	86
C-35-004	1129	35	Operational release	4	1/23/95	2.2.4.9	87
40-002(a)	1111	40	Container storage area	3	10/19/94	2.2.3.9	88
40-002(b)	1111	40	Container storage area	3	10/19/94	2.2.3.9	89
40-002(c)	1111	40	Container storage area	3	10/19/94	2.2.3.9	90

TABLE 1-2

AREAS OF CONCERN RECOMMENDED FOR NO FURTHER ACTION

PRS Number	OU	TA	Unit Type	Criterion Used	EPA Review Date	Document Section	Count
40-003(b)	1111	40	Burning area/open detonation	3	10/19/94	2.2.3.10	91
40-008	1111	40	Decommissioned HE storage area	3	10/19/94	2.2.3.11	92
48-002(a)	1129	48	Container storage area	2	1/23/95	2.2.2.10	93
48-007(e)	1129	48	Outfall	1	1/23/95	2.2.1.38	94
48-009	1129	48	Soil contamination	1	1/23/95	2.2.1.39	95
C-52-001	1129	52	Former transformer site	2	1/23/95	2.2.2.11	96
C-52-002	1129	52	Former transformer site	2	1/23/95	2.2.2.11	97
53-001(d)	1100	53	Storage area	2	12/28/94	2.2.2.12	98
53-001(f)	1100	53	Storage area	2	12/28/94	2.2.2.13	99
53-001(h)	1100	53	Storage area	2	12/28/94	2.2.2.14	100
53-001(i)	1100	53	Storage area	2	12/28/94	2.2.2.15	101
53-001(j)	1100	53	Storage area	2	12/28/94	2.2.2.16	102
53-001(k)	1100	53	Storage area	2	12/28/94	2.2.2.17	103
53-001(l)	1100	53	Storage area	2	12/28/94	2.2.2.18	104
53-001(m)	1100	53	Storage area	2	12/28/94	2.2.2.19	105
53-001(n)	1100	53	Storage area	2	12/28/94	2.2.2.20	106
53-001(o)	1100	53	Storage area	2	12/28/94	2.2.2.21	107
53-003	1100	53	Septic tank	2	12/28/94	2.2.2.22	108

TABLE 1-2

AREAS OF CONCERN RECOMMENDED FOR NO FURTHER ACTION

PRS Number	OU	TA	Unit Type	Criterion Used	EPA Review Date	Document Section	Count
53-011(a)	1100	53	Transformer	3	12/28/94	2.2.3.12	109
53-011(b)	1100	53	Transformer	3	12/28/94	2.2.3.13	110
53-011(c)	1100	53	Transformer	3	12/28/94	2.2.3.14	111
53-011(d)	1100	53	Transformer	3	12/28/94	2.2.3.15	112
53-011(e)	1100	53	Transformer	3	12/28/94	2.2.3.16	113
C-53-001	1100	53	Transformer	3	12/28/94	2.2.3.17	114
C-53-002	1100	53	Transformer	3	12/28/94	2.2.3.17	115
C-53-003	1100	53	Transformer	3	12/28/94	2.2.3.17	116
C-53-004	1100	53	Transformer	3	12/28/94	2.2.3.17	117
C-53-005	1100	53	Transformer	3	12/28/94	2.2.3.17	118
C-53-006	1100	53	Transformer	3	12/28/94	2.2.3.17	119
C-53-007	1100	53	Transformer	3	12/28/94	2.2.3.17	120
C-53-008	1100	53	Transformer	3	12/28/94	2.2.3.17	121
C-53-009	1100	53	Transformer	3	12/28/94	2.2.3.17	122
C-53-010	1100	53	Transformer	3	12/28/94	2.2.3.17	123
C-53-011	1100	53	Transformer	3	12/28/94	2.2.3.17	124
C-53-012	1100	53	Transformer	3	12/28/94	2.2.3.17	125
C-53-013	1100	53	Transformer	3	12/28/94	2.2.3.17	126

TABLE 1-2

AREAS OF CONCERN RECOMMENDED FOR NO FURTHER ACTION

PRS Number	OU	TA	Unit Type	Criterion Used	EPA Review Date	Document Section	Count
C-53-014	1100	53	Transformer	3	12/28/94	2.2.3.17	127
C-53-015	1100	53	Transformer	3	12/28/94	2.2.3.17	128
C-53-016	1100	53	Transformer	3	12/28/94	2.2.3.17	129
C-53-017	1100	53	Ono-lime spill	3	12/28/94	2.2.3.18	130
C-53-018	1100	53	Ono-lime spill	3	12/28/94	2.2.3.19	131
C-53-019	1100	53	Ono-lime spill	3	12/28/94	2.2.3.20	132
55-002(c)	1129	55	Container Storage Area	2	1/23/95	2.2.2.23	133
55-010	1129	55	Solvent spills	1	1/23/95	2.2.1.40	134
55-011(a)	1129	55	Storm drain	3	1/23/95	2.2.3.21	135
55-011(b)	1129	55	Storm drain	3	1/23/95	2.2.3.22	136
55-011(c)	1129	55	Storm drain	3	1/23/95	2.2.3.23	137
55-011(d)	1129	55	Storm drain	3	1/23/95	2.2.3.24	138
55-011(e)	1129	55	Storm drain	3	1/23/95	2.2.3.25	139
55-012	1129	55	Container storage area	2	1/23/95	2.2.2.24	140
57-001(a)	1154	57	Drilling mud pits	4	5/30/95	2.2.4.10	141
57-005	1154	57	Pond filtration unit	2	5/30/95	2.2.2.25	142
60-001(c)	1114	60	Storage area	3	1/7/94	2.2.3.26	143
61-001	1114	61	Transformer storage area	1	1/7/94	2.2.1.41	144

AREAS OF CONCERN RECOMMENDED FOR NO FURTHER ACTION

PRS Number	OU	TA	Unit Type	Criterion Used	EPA Review Date	Document Section	Count
61-004(b)	1114	61	Septic tank	1	1/7/94	2.2.1.42	145
61-004(c)	1114	61	Septic tank	4	1/7/94	2.2.4.11	146
63-002	1129	63	Container storage area	2	1/23/95	2.2.2.28	147
72-002	1100	72	Firing site	1	12/28/94	2.2.1.43	148
72-003(a)	1100	72	Septic system	1	12/28/94	2.2.1.44	149
72-003(b)	1100	72	Septic system	1	12/28/94	2.2.1.45	150

2.0 JUSTIFICATION FOR NO FURTHER ACTION

The justifications for the PRSs listed in Tables 1-1 and 1-2 are presented in Subsections 2.1 and 2.2. These justifications and descriptions were taken directly from the RFI work plans and an addendum for the operable units (OUs) where the PRSs are located and from an RFI report. The references, figures, tables, and document sections cited within each excerpt are located in the applicable work plans, RFI reports, or addenda listed in Table 2-1.

TABLE 2-1

SOURCES FOR PRS JUSTIFICATIONS AND DESCRIPTIONS

Operable Unit	Title of Document	Date of Document	Text Reference
1082	RFI Work Plan for Operable Unit 1082	July 1993	(LANL 1993, 1094)
	RFI Work Plan for Operable Unit 1082, Addendum 1	May 1994	(LANL 1992, 1158)
1085	RFI Work Plan for Operable Unit 1085	May 1994	(LANL 1994, 1156)
1086	RFI Work Plan for Operable Unit 1086	July 1993	(LANL 1993, 1087)
1100	RFI Work Plan for Operable Unit 1100	May 1994	(LANL 1994, 1157)
1106	TA-21 Operable Unit RFI Work Plan for Environmental Restoration, Volumes I–III	May 1991	(LANL 1991, 0689)
	Phase Report 1B	January 1994	(LANL 1994, 1259)
	Phase Report 1C	February 1994	(LANL 1994, 1260)
	Phase Report Addendum 1B and 1C	January 1995	(LANL 1995, 1261)
1111	RFI Work Plan for Operable Unit 1111	August 1993	(LANL 1993, 1091)
1114	RFI Work Plan for Operable Unit 1114	July 1993	(LANL 1993, 1090)
1122	RFI Work Plan for Operable Unit 1122	May 1992	(LANL 1992, 0784)
	RFI Report for TA-33	January 1995	(LANL 1995, 1212)
1129	RFI Work Plan for Operable Unit 1129	May 1992	(LANL 1992, 0785)

The 59 HSWA units are described in numerical order in Subsection 2.1 according to the criterion used; the AOCs are described in Subsection 2.2, following the same format. The OU numbers for the PRSs are provided in parentheses in the headings for the excerpts. Underlined text indicates revisions of the original text. The revisions have been added to elaborate on or further clarify the original text. Complete references for the work plans, RFI reports, and addenda are provided at the end of this chapter. These documents and the EPA review letters and notices of deficiency (NODs) cited at the ends of the excerpts are located at the Records Processing Facility.

2.1 HSWA Units Recommended for No Further Action

2.1.1 NFA Criterion 1. The PRS has never been used for the management (that is, generation, treatment, storage, or disposal) of RCRA solid or hazardous wastes and/or constituents, radionuclides, or other CERCLA hazardous substances. Also falling under Criterion 1 are those PRSs that cannot be located or may have been found never to have existed, duplicate PRSs, and those that are investigated with another PRS.

2.1.1.1 PRS 3-009(a)—Surface Disposal (OU 1114)

SWMU 3-009(a) is a 30 x 300 ft fill area located on the rim of a small tributary of Sandia Canyon south of the asphalt concrete plant and is co-located with SWMU 3-029. This area has been in operation since 1961. The PRS consists of soil fill generated by operations at the facility, with minor amounts of concrete building materials and other asphalt road construction debris. The depth of the fill is not known. The soil has not been compacted and is prone to erosion during periods of heavy rainfall, spilling soil into the tributary and eventually into Sandia Canyon. Erosion control measures have been taken as well as corrective action regulated by NMED at the co-located SWMU site 3-029. NMED closed out this site on October 2, 1993, with conditional approval for water monitoring if erosion or tar reappear in the outfall. (NMED 1993, 17-1234)

The SWMU Report states that a 20-ft section of asbestos-coated pipe was observed at this site (LANL 1990, 0145). There was no visual evidence of this pipe during an investigation by the OU 1114 team on April 3, 1992; it had either been buried or removed. In recommending NFA for SWMU 3-009(a), the OU 1114 team acknowledges that under prevailing conditions there is no reasonable or cost-effective method of locating a buried pipe if it is still present in the fill. Because the area received construction debris, including other metal objects, it is doubtful that a geophysical survey or like technique could identify this specific pipe.

Because asbestos will not migrate in soil, burial is the accepted method of disposal. Title 40 CFR 763, Subpart E, Appendix D requires a minimum of 6 in. soil cover. At closure, a final depth of 36 in. is required. Because of the proposed erosion control measures at SWMU 3-009(a) and proposed further expansion of the fill area, the pipe poses no threat.

PRS 3-009(a) is proposed for NFA because the landfill is stabilized and does not contain RCRA hazardous waste.

EPA Review: OU 1114 NOD dated 3/6/95.

2.1.1.2 PRS 3-009(d)—Surface Disposal (OU 1114)

SWMU 3-009(d) is a 20 x 40 ft construction debris surface disposal site. Small piles of cured asphalt were discarded at the edge of a wooded area southwest of transportable building TA-3-1572 (south of the Physics Building, TA-3-40) on the rim of Twomile Canyon. A culvert empties between the two debris piles, resulting in a large erosion gully. Tree branches and chunks of concrete have been thrown into the gully for erosion control. The asphalt may have been discarded after paving the nearby parking lot. The asphalt appears to have been deposited in the 1950s based on archival photos and the size of the trees growing up from the middle of one of the asphalt mounds. It is obvious that fill material was placed here; however, it is not compacted. Therefore, the site was not intended as a "landfill." Rebar and chunks of concrete, in addition to a rusting sleeve pipe (its origin is unknown), define this area as a construction debris disposal site. Between the fenced yard of TA-3-1572 and the asphalt debris mound is a 4 x 4 ft concrete sewer pipe, miscellaneous antenna tubing, and empty wooden cable reels. Hand held beta/gamma instruments did not detect any radioactivity above background during the site visit. (Text as revised for NOD, 3/94)

PRS 3-009(d) is proposed for NFA because it never has been used for the management of RCRA solid or hazardous wastes and/or constituents, or other CERCLA hazardous substances.
EPA Review: OU 1114 NOD dated 3/6/95.

2.1.1.3 PRS 3-009(h)—Surface Disposal (OU 1114)

SWMU 3-009(h) is described in the SWMU Report as asphalt piles and concrete debris on Sigma Mesa (LANL 1990, 0145). This is a duplicate of SWMU 60-002, described in Subsection 6.1.4.1.2.

PRS 3-009(h) is proposed for NFA because it is a duplicate of PRS 60-002.

EPA Review: RFI work plan review letter dated 1/7/94.

2.1.1.4 PRS 15-009(b)—Septic Tank (OU 1086)

This PRS is a septic tank located at Firing Site R-45, which is part of TA-15. Originally built in 1951, the site has been used for only small quantities of explosives. The existence of nearby trees attests to the small size of the explosions conducted at this site. The septic tank is connected to the rest room facilities of Building R-45.

Because no hazardous materials have knowingly been introduced into the tank, NFA is proposed for this PRS.

EPA Review: OU 1086 RFI work plan review letter dated 1/9/95.

2.1.1.5 PRS 15-009(c)—Septic Tank (OU 1086)

This PRS is a septic tank located at Firing Site R-44, which is part of TA-15. Built in 1951, the firing site was used extensively from 1956 through 1978 for diagnostic tests of weapon components. Small experiments were conducted at the site—the last of which was in September 1992. The septic tank is connected to the rest room facilities in the control room at R-44.

Because no hazardous materials have knowingly been introduced into the tank, NFA is proposed for this PRS.

EPA Review: OU 1086 RFI work plan review letter dated 1/9/95.

2.1.1.6 PRS 15-009(h)—Septic Tank (OU 1088)

This PRS is a septic tank located at Ector Firing Site, which is located at the junction of the road to TA-36 and the road extending north to Firing Sites R-44 and R-45. Ector has been used from the mid-1980s until present for dynamic radiography of explosion-driven weapons components. The septic tank is connected to the rest room facilities of the Ector control building.

Because no hazardous materials have knowingly been introduced into the tank, NFA is proposed for this PRS.

EPA Review: OU 1086 RFI work plan review letter dated 1/9/95.

2.1.1.7 PRS 16-005(b)—Decommissioned Septic System (OU 1082)

SWMU 16-005(b) was septic tank TA-16-174, along with associated drain line, distribution box, and outfall. It was a 4 x 8 x 5 ft reinforced-concrete pit built in 1945. The SWMU Report incorrectly associates the septic tank with a small steam plant, TA-16-502, which served the old T-Site (LANL 1990, 0145). Upon close inspection of Engineering drawing ENG-R 860, it is apparent that the tank served TA-16-142, a firehouse removed in 1955. The septic system was located 197 ft south of TA-16-502 and 91 ft east of Anchor Ranch Road. The septic system drained to the east and,

eventually, into the T-Site drainage ditch. There were no known hazardous materials used at the firehouse (Blackwell 1983, 15-16-076). The septic tank was removed at an unknown later date (ENG-R 2435). During a 1983 cataloging of possible contamination at various S-Site buildings, it was judged to be free of radioactive and chemical toxins (Blackwell 1960,15-16-114; Westfall 1960, 15-16-115). Documentation indicates that this septic tank received only sanitary waste from a firehouse that was located several hundred feet from the nearest process building and, in the absence of hazardous constituents, there is no potential for a release to the environment. The location of the removed tank is an open field that has regrown with vegetation. Septic tanks that manage only domestic waste are excluded from being SWMUs under 40 CFR 261.4(a)(1)(i) (EPA 1990, 0093).

SWMU 16-005(b) is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.1.1.8 PRS 16-005(f)—Decommissioned Septic System (OU 1082)

SWMU 16-005(f) was a 1 500-gal. septic tank, TA-16-272, associated line, dosor chamber, distribution box, and outfall associated with TA-16-260, the HE machining line at TA-16. TA-16-272 was built in February 1951, abandoned in December 1952, and later removed; no removal date was given (ENG-R 2436). Following decommissioning of TA-16-272 in December 1952 TA-16-260 was connected to the sitewide sanitary waste water treatment system, which was completed in 1953. According to Engineering drawing ENG-R 135, the tank was located approximately 190 ft from the northeast corner of TA-16-260. Operations in TA-16-260 are described in Subsection 5.3 of the OU 1082 work plan (LANL 1993, 1094). The exact location of TA-16-272, in relation to TA-16-260, could not be verified, but fragments of clay pipe were found and the ground was depressed (Weston 1988, 15-16-094). Available drawings indicate that the system was connected to several bathrooms along the west side of building TA-16-260 (Engineering drawing ENG-R 857).

As reported in a memo from a former site worker, septic tank TA-16-272 was monitored and found to be free of radioactive contamination (Buckland 1967, 15-16-131). According to a memo, TA-16-272 was not listed as having an HE hazard (Blackwell 1983, 15-16-076).

Documentation indicates that this septic tank received only sanitary waste from TA-16-260 and, in the absence of hazardous constituents, there is no potential for a release to the environment. Septic tanks that manage only domestic waste are excluded from being SWMUs under 40 CFR 261.4(a)(1)(i) (EPA 1990, 0093).

SWMU 16-005(f) is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 RFI work plan review letter dated 1/12/95.

2.1.1.9 PRS 16-005(i)—Septic Tank (OU 1082)

SWMU 16-005(i) was a septic tank originally designated as structure TA-13-12. According to the TA-16 Engineering Structure List, when TA-16 merged with TA-13, TA-13-12 was redesignated TA-16-486. TA-16-486 has been addressed as SWMU 13-003(a) in Subsection 5.4 of the OU 1082 work plan. SWMU 16-005(i) is a duplicate of SWMU 13-003(a).

SWMU 16-005(i) is recommended for NFA under Criterion 1 because it is inaccurately listed as a separate SWMU from SWMU 13-003(a) which has been addressed as noted.

The location of this PRS is not shown on the map of TA-16 in Appendix A of this document.

EPA Review: OU 1082 NOD dated 10/20/94.

2.1.1.10 PRS 16-006(l)—Septic Tank (OU 1082)

SWMU 16-006(l) is an active septic tank. The septic tank was originally designated as structure TA-16-00 and listed in the 1990 SWMU Report as SWMU 16-006(l) (LANL 1990, 0145). Review of Laboratory job #6416-16 of August 1987 indicates that TA-16-00 was a temporary placeholder for septic tank TA-16-1153 (Engineering drawing ENG-C 43838). TA-16-1153, which serves TA-16-370, has been addressed in the OU 1082 Work Plan Subsection 6.1.5.6 under SWMU 16-006(l). SWMU 16-006(l) and SWMU 16-006(l) are identical, and SWMU 16-006(l) has already been addressed as noted above.

SWMU 16-006(l) is recommended for NFA under Criterion 1 because it is inaccurately listed as a separate site from 16-006(l).

The location of this PRS is not shown on the map of TA-16 in Appendix A of this document.

EPA Review: OU 1082 NOD dated 10/20/94.

2.1.1.11 PRS 16-025(c)—Abandoned HE Building and Appurtenances (OU 1082)

SWMU 16-025(c) was a utility building, TA-16-35, which supported machining buildings TA-16-31, TA-16-32, and TA-16-33. Completed in 1945, it was a 15 x 13 x 8 ft wood and gypsum building. Steam heat and other utility lines came first to TA-16-35 and were then distributed to the buildings it served. TA-16-35 was removed after May 1960 (the exact date of its removal is not known). Records indicate that this building presented no known radiological, HE, or toxic chemical contamination problems (Blackwell 1959, 15-16-251; Penland 1959, 15-16-255; LASL 1959, 15-16-256). There is no documentation indicating that this building was used for the handling or storage of hazardous materials. There is no record of any spills or releases associated with this structure. The area is currently vacant and regrown with vegetation.

SWMU 16-025(c) is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 RFI work plan review letter dated 1/12/95.

2.1.1.12 PRS 16-026(l2)—Outfall (OU 1082)

SWMU 16-026(l2) is identified in the SWMU Report as an inactive outfall from the building drains associated with TA-16-54 (LANL 1990, 0145). Based on a review of engineering drawing BLDG54 in the Wastewater Characterization of Building Drains and Outfalls at S-Site (Palmer and Abercrombie 1991, 15-16-366) and a conversation with a former site worker who conducted evaluations of wastewater streams at TA-16 (Buksa 1993, 15-16-517), the building drains in TA-16-54 went to interior sumps and from there to the septic tank system. This septic system will be sampled as outlined in Subsection 5.4 of the OU 1082 work plan.

SWMU 16-026(l2) is recommended for NFA under Criterion 1 because it is a duplicate SWMU and is covered under the sampling plan for SWMU 16-006(a) in Subsection 5.4 of the OU 1082 work plan.

EPA Review: OU 1082 RFI work plan review letter dated 1/12/95.

2.1.1.13 PRS 16-031(g)—Cooling Tower Outfall (OU 1082)

SWMU 16-031(g) was cooling tower TA-16-189. It was a small structure located just east of casting building TA-16-42 and was used to provide noncontact cooling water for casting molds. It was constructed in 1946 and removed in 1960. Only ordinary tap water was used in this equipment (Martin 1993, 15-16-477). There were no known hazardous materials used at TA-16-189 (Blackwell 1983,15-16-076). No record of any release of hazardous constituents is known. The area is currently vacant and regrown with vegetation.

SWMU 16-031(g) is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.1.1.14 PRS 16-032(d)—Decommissioned HE Sump (OU 1082)

SWMU 16-032(d) is identified in the SWMU Report as a decommissioned HE sump associated with TA-16-24 (LANL 1990, 0145). Based on a review of the description of SWMUs 16-032(d) and 16-029(f2) in the SWMU Report (LANL 1990, 0145) and a review of the Release Site Database (LANL 1989, 15-16-361), it is apparent that these two SWMUs are the same. SWMU 16-029(f2) is evaluated in Subsection 5.18 of the OU 1082 work plan.

SWMU 16-032(d) is recommended for NFA under Criterion 1 because it is a duplicate of SWMU 16-029(f2), which is covered in Subsection 5.18 of the OU 1082 work plan.

EPA Review: OU 1082 NOD dated 10/20/94.

2.1.1.15 PRS 16-032(e)—Decommissioned HE Sump (OU 1082)

SWMU 16-032(e) is listed in the 1990 SWMU Report as a decommissioned HE sump (LANL 1990, 0145) but according to drawing ENG-R 124, the designated unit was actually water pump pit TA-16-20, located about 30 ft directly east of TA-16-16, the S-Site cafeteria. The pit, constructed of reinforced concrete with a double wooden cover, was removed in 1953. A service manhole associated with the pump pit still remains. The pit was associated with TA-16-21, a pump house, and Engineering drawing ENG-C 8541 clearly shows that structure TA-16-20 was used to pump water from a tank on Jemez Road. This function was confirmed by a former site worker (Martin and Hickmott, 15-16-549). A 1983 memo indicates that HE may have been associated with TA-16-20, but given its function and its location outside of the HE exclusion area, this does not seem plausible (Blackwell 1983, 15-16-076). Before work began on the Los Alamos Information Communication System in 1991, SWMU 16-009(a) and SWMU 16-032(e) were sampled and screened for gross alpha, beta, and gamma radioactivity and then submitted to HSE-9 for analysis of TCLP metals and RCRA regulated VOC, SVOC, and PCB compounds.

SWMU 16-032(e) is misidentified in the SWMU Report as a decommissioned HE sump (LANL 1990, 0145), but is actually a water pump pit that would not have come into contact with HE (ENG-C 8541) (Martin and Hickmott, 15-16-549). In addition, surface and subsurface sampling done at SWMU 16-032(e) in 1991 prior to installation of the Los Alamos Information Communication System revealed no levels of concern for gross alpha, beta, and gamma radioactivity, nor for TCLP metals, and RCRA regulated VOC, SVOC, and PCB compounds (Fresquez 1991, 15-16-523).

SWMU 16-032(e) is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 RFI work plan review letter dated 1/12/95.

2.1.1.16 PRS 16-034(g)—Soil Contamination (OU 1082)

SWMU 16-034(g) is described in the SWMU Report as soil contamination associated with the operation and decommissioning of building TA-16-517. It goes on to say that, "These structures were flash burned prior to demolition due to health and safety concerns" (LANL 1990, 0145). This implies that TA-16-517 has been removed; however, this building is intact and is addressed as part of SWMU 16-017 in OU 1082 Work Plan Subsection 6.4.1 .

SWMU 16-034(g) is recommended for NFA under Criterion 1 because the SWMU Report inaccurately identified this site as a former structure. The existing structure is addressed as part of SWMU 16-017.

EPA Review: OU 1082 RFI work plan review letter dated 1/12/95.

2.1.2 NFA Criterion 2. No release to the environment has occurred.

Definition of release: "Release" means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes (including hazardous constituents) into the environment.

2.1.2.1 PRSs 16-012(a,b,c,e,f,g,h,k,o,q,r,s,v,w,y, and z)—Container Storage-Rest Houses (OU 1082)

Rest houses are auxiliary buildings used as intermediate storage points in the distribution of HE material. Rest houses were incorporated into the design of the TA-16 explosives process buildings that were constructed in the late 1940s and early 1950s. They function as intermediate storage areas for raw explosives being delivered to process buildings, for finished products ready for transport, or for scrap being removed for disposal. Rest houses at TA-16 are remote from other buildings and are often surrounded by a berm. In most cases they are connected to the process building by an enclosed, shed-like walk way up to several hundred feet long.

A typical rest house at the S-Site complex is a reinforced-concrete building about 40 ft long x 20 ft wide. Heavy double doors open to an exterior loading dock at the front. There are no windows. Floors are painted, polished concrete. Open-lattice metal doors connect the rest house with the walk way. Most of these rest houses have no exterior drains.

High-explosive material is transported to and from the rest house on 6 ft long x 3 ft wide flat-bed, wheeled, Colson carts. The carts are open-sided but have bungee ropes along the sides to cushion the contents and prevent containers from slipping off. High explosives are always packaged in cardboard but may be stored on the carts in a variety of secondary outer containers including cardboard boxes, cardboard drums, wooden boxes, or wooden crates.

All rest houses are currently part of active operations, managed under rigid safety procedures. Activities are currently covered under standard operating procedures (SOPs) (Barr 1992, 15-16-329). Activities have always been conducted in compliance with DOE Explosives Safety Manual DOE/E1/06194 (DOE 1991, 15-16-309) and its Department of Defense predecessors.

Containerized HE material is delivered to and from rest houses under strictly controlled operating procedures. Rest houses are cleaned and maintained on regular schedules. Then, cleaning water and all materials are collected, packaged, and transported to the TA-16 burning ground for treatment. Any special activities in a rest house require a safety work permit issued by the Engineering and Information Resources Group (WX-12) safety office or its predecessors. Recent field screening indicates that no HE material has leaked or spread from any of these structures to the exterior loading docks (Barr 1992, 15-16-329).

PRSs 16-012(a,b,c,e,f,g,h,o,q,v,w,y,z) have no exterior drains and are recommended for NFA under Criterion 2. These PRSs have no credible pathway by which a release to the environment could have occurred.

PRSs 16-012(k,r,s) have sumps and drainage systems that can discharge constituents to the environment. The sumps for these rest houses are being investigated as PRSs 16-029(c,i,o), respectively. PRSs 16-012(k,r,s) are recommended for NFA under Criterion 2.

The following list provides the building number associated with each of the above PRSs:

PRS	Building Number
16-012(a)	TA-16-221
16-012(b)	TA-16-223
16-012(c)	TA-16-225
16-012(e)	TA-16-261
16-012(f)	TA-16-263
16-012(g)	TA-16-281
16-012(h)	TA-16-285
16-012(k)	TA-16-303
16-012(o)	TA-16-341
16-012(r)	TA-16-345
16-012(s)	TA-16-360
16-012(q)	TA-16-343
16-012(v)	TA-16-435
16-012(w)	TA-16-437
16-012(y)	TA-16-463
16-012(z)	TA-16-283

EPA Review: OU 1082 RFI work plan review letter dated 12/22/94.

2.1.2.2 PRS 16-025(g2)—Magazine (OU 1082)

SWMU 16-025(g2) is described in the SWMU Report as possible soil contamination at TA-16-108. TA-16-108 was a 6 ft² storage building built in mid-1944 on the western edge of S-Site. The structure was similar to a magazine with earthen berms on three sides and a door on the fourth. According to a former site worker (Martin and Hickmott, 15-16-549), it was used for the storage of non-HE materials such as aluminum powder, lead oxide, and barium nitrate, but the site worker did not rule out small quantities of containerized HE. The building was destroyed in 1950 for the construction of State Road 501. TA-16-108 was a very small, lightly used building. If HE was stored at this location, it would have been in some type of containerized or packaged form. No machining or shaping was ever done at this location, and there were never any documented cases of a release to the environment. In February 1945, construction began on a line of four magazines on the southeast side of S-Site. These magazines were 1 200 ft² in size and developed primarily for storing HE. If HE was stored at TA-16-108, it would have been for a period of less than one year. Based on a review of aerial photographs, it is probable that TA-16-108 is under State Road 501 which is elevated and fully graded for drainage. Construction of the road involved moving quantities of soil that would have dispersed any traces of contaminants.

SWMU 16-025(g2) is recommended for NFA under Criterion 2 because it is unlikely that any release to the environment has occurred in association with this unit.

EPA Review : OU 1082 RFI Report NOD dated 10/20/94.

2.1.2.3 PRS 53-007(b)—Aboveground Tanks (OU 1100)

This PRS is identified as two tanks located in Building TA-53-3. One tank, built in 1974, is stainless steel and measures 4 ft in diameter by 4 ft high. The other tank is fiberglass and may never have been used. Its capacity is unknown. Both tanks were located below the hot cell room in Experimental Area A. The tanks contained waste solvents, organics, and carcinogens. These wastes were reportedly picked up by EM-7.

The tanks were located during an onsite inspection. Both are inactive and have been disconnected from waste lines. Laboratory staff indicated that the tanks will be removed.

NFA is proposed for this PRS because no release to the environment has occurred.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.1.3 NFA Criterion 3. The PRS is regulated or closed under a different authority which addresses corrective action.

2.1.3.1 PRSs 3-001(a,b,c)—Accumulation Areas (OU 1114)

PRSs 3-001(a,b,c) are currently operational as approved accumulation areas and are managed under the approved Laboratory spill prevention control and countermeasures plan. The EPA and the Laboratory have agreed that accumulation areas are not PRSs provided that they have no history of release and have no credible pathway to the environment (Twombly 1992, 17-681). PRSs 3-001(a,c) are located at TA-3-39 and TA-3-102, respectively; PRS 3-001(b) is located at TA-3-39 and TA-3-40. These PRSs, listed in Table 6-4, meet these criteria. They are either indoors with no potential for leaks beyond the building or they were extensively cleaned for the Department of Energy (DOE) Tiger Team inspection in 1991. None has a history of prior release. These PRSs are currently listed on the Laboratory registry of satellite and less-than-ninety-day accumulation areas.

PRSs 3-001(a,b,c) are proposed for NFA because they are regulated under RCRA as approved accumulation areas with no history of release and no credible pathway to the environment.

EPA Review: OU 1114 RFI work plan review letter dated 1/7/94.

2.1.3.2 PRS 3-002(b)—Storage Area (OU 1114)

PRSs 3-002(b) is currently operational as a satellite accumulation area at TA-3-1966 and is managed under the approved Laboratory spill prevention control and countermeasures plan. The EPA and the Laboratory have agreed that accumulation areas are not PRSs provided that they have no history of release and have no credible pathway to the environment (Twombly 1992, 17-681). This PRS is located indoors with no potential for leaks beyond the building and no history of prior release. This PRS is currently listed on the Laboratory registry of satellite and less-than-ninety-day accumulation areas.

PRS 3-002(b) is proposed for NFA because it is regulated under RCRA as an approved accumulation area with no history of release and no credible pathway to the environment.

EPA Review: OU 1114 RFI work plan review letter dated 1/7/94.

2.1.3.3 PRS 3-035(a)—Underground Tank (OU 1114)

PRS 3-035(a) was a 3,000-gal. underground diesel storage tank that has undergone regulatory closure under RCRA and NMED state UST regulations. This tank was installed in 1977 at the TA-3 service station on Parry Rd. Due to failure of a tightness test (an annual inspection) the tank was removed along with approximately 20 cu yd of soil, in accordance with the procedures described in Part XII, Section 1209 of the 1991 New Mexico UST regulations. (LANL 1990, 17-311) (LANL 1991,17-629) (LANL 1991, 17-629) (LANL 1991, 17-620)

PRS 3-035(a) is proposed for NFA because it has undergone regulatory closure.

EPA Review: OU 1114 RFI work plan review letter dated 1/7/94.

2.1.3.4 PRS 3-035(b)—Underground Storage Tank (OU 1114)

SWMU 3-035(b) is TA-3-1255, an 800 gal underground diesel storage tank located near the Central Intrusion Detection Alarm Station, TA-3-440. This tank supplied the emergency electrical generator for the facility and never leaked; it was scheduled for replacement under UST

guidelines. The tank was removed and officially closed following NMED UST regulations on September 29, 1993. (LANL 1993, 17-1271) (LANL 1993, 17-1272)

EPA Review: OU 1114 NOD dated 3/6/95.

2.1.3.5 PRS 14-004(b)—Satellite Storage Area (OU 1085)

Located at TA-14, this PRS is a satellite storage area used for scrap HE. This PRS is regulated under 40 CFR 262.

Because this PRS is regulated under a different authority, NFA is proposed for this storage area.

EPA Review: OU 1085 RFI work plan review letter dated 12/22/94.

2.1.3.6 PRS 15-007(d)—Shaft (OU 1086)

In 1972, a 6-ft-diameter by 130-ft-deep vertical shaft was dug into the tuff approximately 300 ft east of Building TA-15-263 at Firing Site R-45. The shaft was used in a one-time test of the feasibility of carrying out explosive tests confined by the tuff itself at TA-15. The explosion was confined to the bottom of the shaft. The shaft was backfilled with magnetite, Cal-Seal cement, sand grout, bentonite, sand, and gravel.

For the one-time test carried out in this shaft, approximately 400 Ci of tritium and less than 200 g of beryllium were used. Tritium has a half-life of radioactive decay of 12.26 yr. After each 12.26-yr period, the amount of tritium remaining is one-half that present at the beginning of that 12.26-yr period—giving a current maximum concentration of about 120 Ci or about 3% of the airborne annual releases of tritium. Given the assumption that this area will be under some governmental control for up to 100 yr, tritium in this shaft and surroundings will not be a potential hazard in the event that the area reverts to public recreational use.

In the deep, back-filled shaft, beryllium and lead are not potentially hazardous. The less than 200 g of beryllium, if mixed with approximately 1,000 tons of soil from such an explosion (explosions cause extensive mixing), would be below the 40 CFR 264 action level of 0.2 mg/kg for beryllium in soil. The estimate of 0.2 mg/kg of beryllium in soil is conservative because it is an action level based on residential rather than recreational usage. The background level of beryllium has been found to be 4.7 mg/kg for tuff and 2.4 mg/kg for soil. The additional beryllium changes the loading by not more than 8%. The likelihood of someone digging up the backfill with beryllium is also low.

This PRS is recommended for NFA because of low source term quantities and because there is no reasonable pathway to receptors.

EPA Review: OU 1086 RFI work plan review letter dated 1/9/95.

2.1.3.7 PRS 15-014(m)—Drain Line and Outfall (OU 1086)

This PRS is a drain line and outfall located at TA-15. The line is a 1.5-in. PVC pipe fastened to the north wall of Building TA-15-306. This drain line and outfall handle noncontact cooling (no chemical added) water from Building TA-15-306. The line empties into a roadside ditch, which is graded in the direction of Potrillo Canyon. The outfall is permitted under EPA 04A143.

Because this drain line and outfall are regulated under a different authority, NFA is proposed for this PRS.

EPA Review: OU 1086 RFI work plan review letter dated 1/9/95.

2.1.3.8 PRS 61-007—Transformer Site-Systematic Leak (OU 1114)

PRS 61-007 was a transformer staging site along the south side of East Jamez Rd. about one mile east of Diamond Drive. The site was cleaned up in 1992. The regulatory closure was orally approved by EPA Region 6, Toxic Substances Control Act regulations branch.

PRS 61-007 is proposed for NFA because it has undergone regulatory closure.

EPA Review: OU 1114 RFI work plan review letter dated 1/7/94.

2.1.4 NFA Criterion 4. The PRS has been characterized or remediated in accordance with current applicable state or federal regulations, and the available data indicate that contaminants of concern are either not present or are present in concentrations that would pose an acceptable level of risk under the projected future land use. The determination of acceptable risk and future land use has considered stakeholder involvement.

2.1.4.1 PRS 3-001(k)—Storage Pad (OU 1114)

SWMU 3-001(k) is a level, 40 x 50 ft paved area located on the south side of the Van de Graaff Building, TA-3-16. The asphalt surrounds an 8 x 10 ft concrete pad abutting south facing exit doors. Both asphalt and concrete appear weathered and devoid of stains, with the exception of two rust rings on the concrete. The area is fenced and used as a storage yard, principally for old electronic equipment. A shed on the southwest perimeter of the fenced area is a designated satellite accumulation area.

SWMU 3-001(k) is listed in the SWMU Report as a less-than-ninety-day accumulation area (LANL 1990, 0145). CEARP record 1174 quotes a 1986 field survey as noting the presence of "3 very oily, unmarked drums on the south side of SM-16 and in the backyard of SM-16 ... drums, etc., appear to be in this area" (LANL 1989, 17-018). The waste coordinator at TA-3-16 between 1980 and 1987 states that the "very oily" drums stored fresh vacuum oil to be used in experiments. Other drums included empty drums for salvage; empty drums to be filled with wastes; empty, tar-lined 55-gal. drums for waste tritium storage; and a few drums containing used solvents (Sobojinski 1992, 17-641). The area was also used for the storage of power supplies. In 1989 samples were taken from oils, the power supplies, and an asphalt chip. All were negative except the chip, which contained 7.8 ppm of mixed arochlors, below Toxic Substances Control Act (TSCA) cleanup levels (LANL 1990, 17-814).

Recommendation for NFA is based on the scoured physical appearance of the surface of the concrete and asphalt. A few small oil stains appear only in the area where new product oil was dispensed. An asphalt seal-coat has been reapplied at least once (date unknown, but prior to 1979, based on aerial photos RN79042022 and RN84188103). There is no physical indication that sufficient solvent spills occurred to penetrate the asphalt and contaminate the subsurface. There are no records that tritium-contaminated waste was spilled from tar-lined drums.

PRS 3-001(k) is proposed for NFA because it has been characterized in accordance with current applicable state or federal regulations, and the available data indicate that contaminants of concern are either not present or are present in concentrations that would pose an acceptable level of risk under the projected future land use.

The location of this PRS is not shown on the map of TA-3 in Appendix A of this document.

EPA Review: OU 1114 NOD dated 3/6/95.

2.1.4.2 PRS 3-003(c)—Equipment Storage Area (OU 1114)

SWMU 3-003(c) was an outdoor equipment storage area used for dielectric oils and capacitors. It was located on the south side of TA-3-287. The building has been remodeled in support of a space technology center and the PRS sampled as part of an ERIA reconnaissance survey. The building's prior use included a magnetic fusion energy project (Scyllac) which involved the use of 3,300 non-PCB-containing capacitors. Prior to decommissioning the Scyllac experiment in the mid-1980s, oil samples from spark-gap switches and swipes from surfaces within the room were analyzed and found to have a PCB concentration less than 2 ppm (Fresquez 1992, 17-241). During the decommissioning phase, the capacitors were temporarily stored south of TA-3-287. Swipes from the pavement were tested and found free of PCB contamination (Morales 1990, 17-815).

PRS 3-003(c) is proposed for NFA because it has been characterized in accordance with current applicable state or federal regulations, and the available data indicate that contaminants of concern are either not present or are present in concentrations that would pose an acceptable level of risk under the projected future land use.

EPA Review: OU 1114 NOD dated 10/29/93.

2.1.4.3 PRS 21-024(j)—Septic System (OU 1106)

SWMU 21-024(j) consists of septic tank TA-21-194 and associated drain lines. The septic tank received sewage from building TA-21-155 (warehouse/laboratory). The reinforced concrete tank is located off the southwest corner of TA-21-155 near the south edge of the perimeter road. It has dimensions of 5-ft long by 3-ft wide and is 6-ft deep. In October 1986, the septic tank was abandoned by pumping out the septic tank and filling it with earth. The TA-21 RFI Work Plan approved by EPA in January 1992 presented a characterization plan for this site.

SWMU 21-024(j) was investigated in 1993 according to the sampling and analysis plans presented in the TA-21 RFI Work Plan, Chapter 15.6. Results of the investigations were reported to EPA in the RFI Phase Report 1C in February 1994 and the Phase Report 1B and 1C Addendum in January 1995. Based on the results of the investigation no contaminants of concern were identified and a recommendation of no further action was proposed.

EPA Review: OU 1106 NOD dated 3/6/95.

2.1.4.4 PRS 21-024(k)—Septic System (OU 1106)

SWMU 21-024(k) consists of septic tank TA-21-219, associated drain lines, and a leach field. Sewage discharged from building TA-21-209 (the high-temperature chemistry building) was carried south to manhole TA-21-217 via a cast iron 8-in line. Six-inch VCP carried the sewage south to manhole TA-21-228 and on southwest to septic tank TA-21-219. The septic tank, which has two chambers, was constructed from reinforced concrete and measures 18-ft, 6-in long by 8-ft 4-in wide and 8-ft 10-in deep. Overflow from the septic tank went to a leach field which was 30-ft long by 20-ft wide and 5-ft 6-in deep. The septic system was abandoned in October 1986 by pumping out the tank and filling it with earth. The TA-21 RFI Work Plan approved by EPA in January 1992 presented a characterization plan for this site.

SWMU 21-024(k) was investigated in 1993 according to the sampling and analysis plans presented in the TA-21 RFI Work Plan, Chapter 15.6. Results of the investigations were reported to EPA in the RFI Phase Report 1C in February 1994 and the Phase Report 1B and 1C Addendum in January 1995. Based on the results of the investigation no contaminants of concern were identified and a recommendation of no further action was proposed.

EPA Review: OU 1106 NOD dated 3/6/95.

2.1.4.5 PRS 21-024(m)—Drain Line (OU 1106)

SWMU 21-024(m) is an 8-in VCP that exits building TA-21-209, the high temperature chemistry lab, and leads south toward Los Alamos Canyon. The pipe appears to have been removed in the construction of a storm drain. The characterization plan for this site presented in the TA-21 RFI Work Plan, approved by EPA in January 1992, focused on the outfall drainage below the outfall point.

SWMU 21-024(m) was investigated in 1992 according to the sampling and analysis plans presented in the TA-21 RFI Work Plan, Chapter 15.7. Results of the investigations were reported to EPA in the RFI Phase Report 1C in February 1994. Based on the results of the investigation

no contaminants of concern were identified and a recommendation of no further action was proposed.

EPA Review: OU 1106 NOD dated 3/6/95.

2.1.4.6 PRS 21-024(n)—Drain Line (OU 1106)

SWMU 21-024(n) is a drain exiting building TA-21-155 and discharging northward into DP Canyon. TA-21-155 has been a warehouse/laboratory, and currently contains a furnace. The drain system consists of CMP exiting a concrete bulkhead and discharging onto a gravel road immediately adjacent to MDA U. The effluent flowed north to the ditch paralleling the north perimeter road and into DP Canyon. The TA-21 RFI Work Plan approved by EPA in January 1992 presented a characterization plan for this site.

SWMU 21-024(n) was investigated in 1992 according to the sampling and analysis plans presented in the TA-21 RFI Work Plan, Chapter 15.4. Results of the investigations were reported to EPA in the RFI Phase Report 1C in February 1994. Based on the results of the investigation no contaminants of concern were identified and a recommendation of no further action was proposed.

EPA Review: OU 1106 NOD dated 3/6/95.

2.1.4.7 PRS 21-024(o)—Drain Line (OU 1106)

SWMU 21-024(o) is a 4-in VCP drain line reported to have served building TA-21-46, the old diesel plant, which was converted to a warehouse between 1957 and 1964. The drain discharges to the south into Los Alamos Canyon. The TA-21 RFI Work Plan approved by EPA in January 1992 presented a characterization plan for this site.

SWMU 21-024(o) was investigated in 1992 according to the sampling and analysis plans presented in the TA-21 RFI Work Plan, Chapter 15.4. Results of the investigations were reported to EPA in the RFI Phase Report 1C in February 1994. Based on the results of the investigation no contaminants of concern were identified and a recommendation of no further action was proposed.

EPA Review: OU 1106 NOD dated 3/6/95.

2.1.4.8 PRS 21-027(b)—Outfalls (OU 1106)

SWMU 21-027(b) consists of two outfalls in the same drainage channel. The first is active NPDES outfall (EPA03A034). It discharges treated cooling water from cooling towers TA-21-166 and TA-21-167 on the south edge of DP mesa. The second discharges south into Los Alamos Canyon from a cooling tower associated with building TA-21-152 but is not visible in the field. A LANL report on NPDES outfalls (LANL 1989c) states that this outfall was eliminated. The two will be addressed as the same under SWMU 21-027(b) since they would have impacted the same drainage area. The TA-21 RFI Work Plan approved by EPA in January 1992 presented a characterization plan for this site.

SWMU 21-027(b) was investigated in 1992 according to the sampling and analysis plans presented in the TA-21 RFI Work Plan, Chapter 15.7. Results of the investigations were reported to EPA in the RFI Phase Report 1C in February 1994. Based on the results of the investigation no contaminants of concern were identified and a recommendation of no further action was proposed.

EPA Review: OU 1106 NOD dated 3/6/95.

2.1.4.9 PRS 21-027(d)—Drain Line (OU 1106)

SWMU 21-027(d) consisted of a 4-in steel drain line that extended from the catch basin around fuel tank TA-21-47 south toward Los Alamos Canyon. The line drained storm run-off from the bermed area. This drain line was removed in March of 1995. The TA-21 RFI Work Plan approved by EPA in January 1992 presented a characterization plan for this site.

SWMU 21-027(d) was investigated in 1992 according to the sampling and analysis plans presented in the TA-21 RFI Work Plan, Chapter 15.2. Results of the investigations were reported to EPA in the RFI Phase Report 1C in February 1994. Based on the results of the investigation no contaminants of concern were identified and a recommendation of no further action was proposed.

EPA Review: OU 1106 NOD dated 3/6/95.

2.1.4.10 PRS 33-004(d)—Septic System (OU 1122)

SWMU 33-004(d) is a septic system which served a toilet and sink in TA-33-1, located at Area 6. The 500-gal., corrugated-iron septic tank, TA-33-121, is located about 50 ft southeast of the building. The system includes a single drain line of vitrified clay sections laid in gravel and terminating about 5 ft below grade.

TA-33-1 is a wooden laboratory building. Between 1948 and 1955 it supported non-explosive initiator tests at Area 6. The building was later used for offices and storage. It has been abandoned since 1991.

The septic tank was dry and rusty and contained no sludge, so no samples were taken. This is contrary to the work plan for SWMU 33-004(d). As specified in the sampling and analysis field plan for the outfall and drainage, a total of 19 samples, including field duplicates and collocated samples, were collected. One borehole was hand-augered adjacent to the tank and two more boreholes were placed downslope from the tank along the line of the single drainpipe for a total of three surface (plus one duplicate and one sample analyzed in triplicate) and six subsurface samples. The remaining samples were surface samples collected on the slope below the buried outfall and in the drainage.

All samples were analyzed for uranium, gamma emitters, inorganics, cyanide, and SVOCs. Four subsurface samples were analyzed for VOCs. Two resamples were later taken at the borehole nearest the septic tank and analyzed for VOCs only .

Concentrations of uranium and gamma emitters were within local background ranges, although uranium was typically above the framework studies UTL. Inorganics were within background ranges. Low levels of cyanide were detected in six of the augered samples at concentrations ranging from 0.75 to 2.6 mg/kg. A seventh sample (sample AAA2133, at the depth of the drainpipe) contained 22.5 mg/kg cyanide. Very low levels of acetone (0.045-0.066 mg/kg) were detected in four samples. SVOCs were detected at low levels in drainage sample AAA2140, about 500 ft downslope from the septic tank: phenanthrene (0.62 mg/kg) and pyrene and fluoranthene each at 0.49 mg/kg. No SVOCs were positively identified in any other sample, including Sample AAA2141, collected from a point 1 ft to the north of Sample AAA2140. TICs were reported for the majority of the samples, and were most numerous in surface samples. The TICs are considered components of the humus of surface soil horizons.

Comparison with SALs and background levels indicates that no inorganics or radionuclides were detected at levels of concern. Inorganics and uranium are within or near their backgrounds. Cyanide concentrations were far below SAL of 1 600 mg/kg. The trace concentrations of organics in subsurface samples are also well below their respective SALs. The SVOCs that appear only in one drainage sample are also well below SALs except for phenanthrene at 0.62 mg/kg, for which no SAL has been calculated. These SVOCs were not found in a collocated sample one foot away.

This location in the drainage could have been affected by wood preservatives from a telephone pole approximately 15 ft upslope.

Based on these results NFA is proposed for SWMU 33-004(d) based on current LANL Criterion 4. It is believed that these samples represent zones of maximum soil contamination. Although no samples were taken from the tank due to lack of sludge, samples were chosen near the tank and drain line in locations that would have detected contamination if any had occurred. In addition, samples from the bedrock drainage indicate that no contamination is migrating from the PRS.

EPA Review: OU 1122 RFI Report NOD dated 4/24/95.

2.1.4.11 PRS 33-004(g)—Outfall (OU 1122)

SWMU 33-004(g) is the outfall from building TA-33-16 at Area 6 located at TA-33. A drain line of vitrified clay pipe exits the northwest corner of the building and daylights at the rim of the leveled area above a channel leading to a tributary of Chaquehui Canyon. A short culvert under an unimproved road also empties into this channel a few yards west of the outfall. The culvert drains much of the Area 6 pavement. Between 1948 and 1955, TA-33-16 was a used as a gun building for initiator tests at Area 6. Photo developing may have been performed in the building or in a small trailer parked next to the drainage. In 1956 TA-33-16 was used for experiments in laminating materials containing barium, titanium, lead, and zinc. The building was later used for a library and storage. It has been empty since 1991.

Four surface samples for SWMU 33-004(g) were specified in the work plan. Five samples were collected: one immediately below the outfall, three more in sediment traps about 100 ft apart in the drainage, and one at the outfall of the nearby culvert. All samples were analyzed for SVOCs, uranium, gamma emitters, inorganics, and explosives.

Radionuclides were within local background ranges for all samples, although the uranium data are often above the framework studies UTL. No explosives were reported above detection levels. Nickel and zinc were above background in the drainage samples. Other analytes were either within or near Laboratory background ranges or below detection levels in all samples except sample AAA2145, the sample at the SWMU 33-004(g) outfall. In this sample, significantly elevated levels of silver, barium, lead, and zinc were observed, consistent with archival information about the laminating experiments and photo developing in TA-33-16.

Combinations of chemicals may pose a risk even though each is present below its individual SAL. A simple evaluation for screening purposes used here calculates the ratio of the observed concentration to the SAL for each inorganic, then calculates the sum of the ratios. If the total multiple constituent ratio (TMCR) is less than one, then the suite is considered below a level of concern. Here the TMCR is 0.922, below the trigger level of one.

Nickel is above LANL and local backgrounds in three samples, but not in the outfall sample or sample AAA2146. The drainage receives material from the basaltic cinder cone that forms a part of Area 6. Because the highest concentration of nickel (52.3 in sample AAA2149) represents only 3.3% of its SAL of 1 600, nickel is not considered a contaminant of concern at SWMU 33-004(g).

PCBs were not considered to be a potential contaminant associated with SWMU 33-004(g). However, they are one of the primary contaminants associated with overlapping SWMU 33-009. The PCB observations in sample AAA2145 will be considered further in connection with SWMU 33-009 in a future RFI report.

TICs were reported for all five samples. Bis(2-ethylhexyl)phthalate, a common laboratory contaminant, was identified in sample AAA2145 at 0.53 mg/kg. Mixed Aroclors™ (PCBs) were reported as TICs at levels up to 2.5 mg/kg in outfall sample AAA2145.

Although elevated levels of some inorganics were observed in the sample at the outfall at SWMU 33-004(g), these levels are below SALs and the TMCR limit of one. A release did occur, but

adequate sampling took place in the drainage to define the extent of that release. This location is the point of entry to the environment from TA-33-16 drainpipe and contains the only contaminants found. No or very low levels of contaminants were found in the channel below the outfall samples, indicating that the low-level inorganic contaminants are not migrating from the site to any significant degree.

NFA is proposed for SWMU 33-004(g) based on LANL Criterion 4. However, actions taken for PCBs at SWMU 33-009 may affect overlapping areas of SWMU 33-004(g).

EPA Review: OU 1122 RFI Report NOD dated 4/24/95.

2.1.4.12 PRS 33-004(h)—Outfall (OU 1122)

SWMU 33-004(h) is described as an outfall from warehouse TA-33-20 located at Main Site at TA-33. Engineering drawings indicate that a floor drainpipe from the warehouse led eastward to an outfall. However, no outfall was located by LANL environmental restoration personnel, ICF Kaiser sampling team members, or during the 1992 LANL wastewater stream characterization studies (Santa Fe Engineering 1992, 02-096). TA-33-20 is a Quonset-type warehouse. From 1952 until 1972 material for initiator experiments was stored in and around the building. The building was cleaned for subsequent groups. Floor drains were not plugged.

There was no visual evidence of an outfall in the area identified with SWMU 33-004(h), but a geophysical survey using ground-penetrating radar indicated that a pipe or trench may have existed. The existence of a pipe or trench was not confirmed. Three sampling locations were selected based on these geophysical results. As specified in the work plan, all samples were from the surface. Soils are shallow in this area, with nearby tuff outcrops. A pile of asphalt and gravel was noted within 10 ft of the first of these sampling locations (ICF-Kaiser 1994, 02-095).

The RFI Work Plan for OU 1122 specified that three surface samples and one duplicate be collected at SWMU 33-004(h) (LANL 1992, 0784). Five surface samples plus one duplicate were collected at this SWMU as follows: one sample and its duplicate were collected where the geophysical survey suggested the end of a pipe or trench might be located. A pair of collocated samples was collected 35 ft to the east and downgradient from this point. A third sample was collected another 36 ft to the east, in a natural rocky drainage area. In addition, one sample and its duplicate associated with SWMU 33-017 were collected about 60 ft northeast of the third sample in the same channel.

Concentrations of most inorganics and radionuclides were within background ranges. Silver was at 1 mg/kg in the channel samples AAA2056 and its duplicate AAA2193. Nickel was above background in the outfall sample AAA1971. Low levels of above-background zinc were in three locations. Minute amounts of pesticides (0.003 mg/kg) were observed in sample AAA1974. Non-carcinogenic PAHs phenanthrene, pyrene, and fluoranthene were identified in one channel sample at levels below 0.5 mg/kg, and TICs were observed in both channel samples. Tritium was measured at about 27 pCi/g in the channel samples.

Comparison of results with background and SALs indicates that contaminants are not present at concentrations near levels of concern. Above-background levels of tritium and PAHs in the channel samples are ascribed to the general operational releases from the nearby tritium facility, TA-33-86, and from the paved areas of Main Site, not to SWMU 33-004(h). Above-background levels at 1 mg/kg of silver in the drainage sample AAA2056 and 40 mg/kg nickel in sample AAA1971 may be related to the nearby incinerator, SWMU 33-015, where silver was observed at 10 to 20 mg/kg.

Although the outfall was not located, and subsurface samples could not be taken due to the thin soils, the sampling points represent the best estimates of suitable locations for this PRS. Based

on sampling results and the near-bedrock conditions at the SWMU, NFA is proposed at SWMU 33-004(h) based on LANL Criterion 4.

EPA Review: OU 1122 RFI Report NOD dated 4/24/95.

2.1.4.13 PRS 33-010(f)—Surface Disposal (OU 1122)

SWMU 33-010(f) consists of two small surface disposal areas; one about 15 ft square, the other about 10 ft wide and 20 ft long. Pieces of concrete, the concrete remains of a culvert, piles of tuff, piles of cured asphalt, rusty metal rebar and strapping bands, rusty metal cans, and other debris are piled about. The piles are located about 50 ft apart. They lie about 100 ft southeast of MDA K and 300 ft southeast of the decommissioned tritium facility, TA-33-86. Nothing is known of the origins of the piles, although some debris appears to be the result of roadwork.

Prior to sampling, SWMU 33-010(f) was included in the general grid-based radiation survey called for in the RFI Work Plan for OU 1122. As specified in the work plan, two samples were collected at random within each pile, one in duplicate, one in triplicate, for a total of five sets. Samples were analyzed for inorganics, gamma emitters, and tritium. One pair was also analyzed for herbicides and pesticides .

Low levels (0.0024 to 0.011 mg/kg) of pesticides were found in two samples. Low levels (1.4 to 1.8 pCi/g) of tritium were found in all samples, far below soil SAL of 820 pCi/g and well within the TA-33 grid range. No other analytes were found above background.

SWMU 33-010(f) appears to be a dumping area for items not associated with experimental activities at TA-33. There were no visible indications of soil staining and sampling locations were chosen at random. Because sampling as specified in the work plan failed to detect contamination at levels of concern, NFA is proposed at this PRS based on LANL Criterion 4.

EPA Review: OU 1122 RFI Report NOD dated 4/24/95.

2.1.4.14 PRS 33-011(e)—Drum Storage (OU 1122)

SWMU 33-011(e) was a former drum storage area located within 30 ft northwest of bunkered magazine TA-33-22. The area was a storage site for drums with unknown contents. Soil sampling in 1987 found uranium and gamma emitters above background (LANL 1990, 0145).

Prior to sampling, SWMU 33-011(e) was included in the general grid-based radiation survey called for in the work plan. The presampling radiation survey showed no levels above background. There were no screening or surface indications to bias sampling. As specified in the work plan, two surface soil samples and a duplicate were taken at random locations within a 20 x 100 ft area in SWMU 33-011(e). In addition, sample AAA2123 from the SWMU 33-017 grid is located approximately 20 ft north of the site. All samples were analyzed for uranium and gamma emitters. Two were analyzed for herbicides and one for pesticides. The grid sample was also analyzed for inorganics, tritium, plutonium, and SVOCs.

Uranium was found above LANL (99%, 0.95) UTL in one sample. Aniline, for which no SAL is available, was found at 0.4 mg/kg in the grid sample.

Radionuclides were indicated as the potential contaminants in the SWMU Report (LANL 1990, 0145). No radionuclides were detected significantly above background ranges in the 1993 sampling campaign, nor were any other contaminants identified in these samples at levels of concern. No physical indications, such as soil staining, are present. In the absence of any indications to the contrary, NFA is proposed at SWMU 33-011(e) based on LANL Criterion 4.

EPA Review: OU 1122 RFI Report NOD dated 4/24/95.

2.1.4.15 PRS 33-012(a)—Drum Storage (OU 1122)

SWMU 33-012(a) was a satellite storage area about 20 ft square, now unused, on the east side of shop TA-33-39. The area consists of an asphalt pad between the building and a storage shed. The part of SWMU 33-017 known as the vehicle maintenance area is south of the storage shed. The pad was used to store 55-gal. drums of solvents and solvent-contaminated oil for recycling. Potential contaminants were identified as organics, PCBs, and inorganics.

Prior to sampling, SWMU 33-012(a) was included in the general grid-based radiation survey called for in the work plan. No anomalies were found. As specified in the work plan, four samples were collected: two at random locations within the SWMU, two at the edge of the pavement. All were soil samples collected from under asphalt or disintegrating asphalt pieces. Three were collected about 6-in. deep; one was taken 10 to 14 in. below asphalt. In addition, three samples associated with SWMU 33-004(l) are relevant to this SWMU and were used in making the NFA decision. All samples for this SWMU were analyzed for inorganics, gamma emitters, SVOCs, and PCBs. Two samples were analyzed for herbicides and pesticides.

Zinc (120 to 820 mg/kg) and lead (53 to 118 mg/kg) were elevated above background but far below SALs of 24 000 and 400 mg/kg respectively. No other inorganics were found above background. Uranium in two of the three drainage samples collected for SWMU 33-004(l) were above LANL, but below TA-33 UTLs. Low levels of SVOCs found in the samples are attributed to SWMU 33-017. PCBs at 2.3 and 0.25 mg/kg were found in two samples. A very low level (0.013 mg/kg) of the pesticide DDT was found in one sample.

Comparison to background and SALs for inorganics, radionuclides, herbicides, and pesticides indicates that these analytes were not detected at levels that warrant further investigation. PCBs did not approach the LANL-recommended cleanup level of 10 mg/kg (LANL 1994). Lead and PAH contamination appear to be part of a wider pattern of contamination in the area east of TA-33-39. The levels observed in SWMU 33-012(a) samples are lower than in nearby samples. Lead contamination in a 0.15-acre exposure unit here, including results from SWMU 33-012(a) samples, is evaluated in Subsection 4.4 of the January 1995 RFI report for OU 1122 in connection with SWMU 33-004(l). Further characterization of SVOC contamination in this part of Main Site, including SWMU 33-012(a), will be proposed in a future RFI report in connection with SWMU 33-017.

With the transfer of PAH and lead contamination to overlapping PRS, NFA is proposed for SWMU 33-012(a) based on LANL Criterion 4.

EPA Review: OU 1122 RFI Report NOD dated 4/24/95.

2.2 Areas of Concern Recommended for No Further Action

2.2.1 NFA Criterion 1. The PRS has never been used for the management (that is, generation, treatment, storage, or disposal) of RCRA solid or hazardous wastes and/or constituents, radionuclides, or other CERCLA hazardous substances. Also falling under Criterion 1 are those PRSs that cannot be located or may have been found never to have existed, duplicate PRSs, and those that are investigated with another PRS.

2.2.1.1 PRS C-5-001—Former Building Location (OU 1129)

PRS No. C-5-001 consists of two potential soil contamination areas associated with former TA-5-8 and TA-5-21.

TA-5-8 was a storage building built adjacent to steel barricade Firing Pit No. 1 (TA-5-7) in 1944 and removed in 1950. Hazardous materials were not known to be stored in the building. Because it was located adjacent to the firing pit, the area of the building may have been contaminated with high explosives (HE) and depleted uranium. The site was decontaminated and decommissioned during the LASCP project in 1985. The site is included in the area to be studied during the Phase I sampling of SWMU No. 5-001(a) in Aggregate B, which is discussed in Section 7.6 of the RFI work plan for OU 1129; therefore, a separate sampling program is unnecessary. This PRS is also addressed in the discussion of Aggregate R in Section 7.22.

TA-5-21 was a maintenance building located west of the calibration chamber (TA-5-20). Its location suggests that the building was used to house equipment associated with work conducted in the calibration chamber. It was reported to be free of detectable radioactivity in 1976. According to archival information, no known RCRA hazardous materials were stored in TA-5-21.

PRS C-5-001, TA-5-21, is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.1.2 PRS C-15-008—Non-Intentional Release (OU 1086)

This PRS is a clear liquid that was reported during a 1988 site visit to TA-15. A 1992 site visit, however, revealed no visible liquid, no residue in the general area, and no identification marks where the clear liquid had been seen. Given the general location of this PRS—on the edge of the parking lot—it is likely that the puddle was water. No quantities of colorless liquid compounds are used at this site.

Because of the lack of evidence for contaminants and the lack of knowledge of the exact location of this PRS, NFA is proposed.

EPA Review: OU 1086 RFI work plan review letter dated 1/9/95.

2.2.1.3 PRS C-15-012—Underground Tank (OU 1086)

This PRS is a 15,000-gal. underground tank containing mineral oil. Installed in 1977 and designated TA-15-287, the tank was located immediately north of Building TA-15-184. The tank was mislabeled with a second number TA-15-266 (PRS 15-013(b)).

This PRS is recommended for NFA because it is a duplicate of PRS 15-013(b).

EPA Review: OU 1086 RFI work plan review letter dated 1/9/95.

2.2.1.4 PRS 16-023(a)—Incinerator (OU 1082)

SWMU 16-023(a) was listed in the SWMU Report as Incinerator TA-16-199. After considerable archival research, its location and history cannot be clearly established. It is possible that it is identical to TA-16-403, which is addressed in Subsection 5.19 of the OU 1082 work plan. The SWMU Report contains a self-contradictory chronological discussion which may reflect the confusion between TA-16-199 and TA-16-403 (LANL 1990, 0145). The existence of this SWMU cannot be verified based on the information in the SWMU Report or as a result of an extensive archival search. Because the location of SWMU 16-023(a) cannot be established, it is impossible to develop an applicable sampling plan. The extensive sampling which will be carried out in the general area cited in the SWMU Report for this SWMU is likely to locate any residual contamination if it exists. If any contamination is detected as the result of the sampling, its nature and extent will be explored during Phase II.

SWMU 16-023(a) is recommended for NFA under Criterion 1 because its location cannot be established.

The location of this PRS is not shown on the map of TA-16 in Appendix A of this document.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.5 PRS 16-032(b)—Decommissioned HE Sump (OU 1082)

SWMU 16-032(b) is identified in the SWMU Report as a sump associated with a former HE storage building TA-16-148, which was located southwest of TA-16-27 near TA-16-24 (LANL 1990, 0145). Engineering drawing ENG-C 1096 shows TA-16-148 as a simple wooden-frame storage shed (12 x 8 x 7 ft) on skids that was located adjacent to TA-16-24. It was designed in such a way that it would not have made an acceptable repository for the storage of HE, nor did it have a sump associated with it. The SWMU associated with TA-16-148 itself was covered in Subsection 5.19 of the OU 1082 work plan.

SWMU 16-032(b) is recommended for NFA under Criterion 1 because TA-16-148 was not an HE storage building and had no sump associated with it. Thus, this SWMU never existed.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.6 PRS C-16-003—Septic System (OU 1082)

The background of this structure and its associated septic tank, also recommended for NFA, are given in Subsection 6.1.5.3 of the OU 1082 work plan. There is no documentation to indicate that this septic tank received anything other than sanitary waste from its associated guardhouse and, in the absence of hazardous constituents, there is no potential for a release to the environment. C-16-003 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.7 PRS C-16-004—Building (OU 1082)

This hose house, TA-16-150, was constructed in 1945 or 1946 and was removed in 1968. TA-16-150 was located southwest of TA-16-26. Hose houses, as the name implies, were situated adjacent to fire hydrants and were used to protect lengths of fire hose from the elements. Each was wooden-frame construction approximately 7 x 3 x 8 ft with two doors to protect the interior from the weather. There were no known hazardous materials used at these locations (Blackwell 1983,15-16-076).

C-16-004 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.8 PRS C-16-007—Tank Stand (OU 1082)

C-16-007 was water tank stand TA-16-521, which stood in the area between the berms sheltering TA-16-515 and TA-16-517. It was a 15-ft wooden tower mounted on concrete piers, topped with a wooden water tank 15 ft in diameter and 10 ft high. Engineering drawing ENG-C 1840 indicates that all equipment within the structure was moved to the US Engineers' warehouse. The tank was abandoned in place in 1967 and demolished in 1968. There were no known hazardous materials used at this location (Blackwell 1983,15-16-076). There is no record of any spills or releases associated with the structure.

C-16-007 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.9 PRS C-16-021—Building (OU 1082)

C-16-021 was administration building TA-16-1, which was constructed in 1944 and removed in March 1956. It was located in the southeast section of the TA-16 administration area. The building went through numerous renovations and additions, and was F-shaped at the time of its removal. There were no known hazardous materials used at this location (Blackwell 1983, 15-16-076). This structure was not used for the handling or storage of hazardous materials (Blackwell 1983,15-16-076).

C-16-021 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.10 PRS C-16-022—Building (OU 1082)

C-16-022 was office building TA-16-2, which was constructed in 1944 and removed by the First Baptist Church of Bayfield, Colorado in March 1956. It was a 20 x 64 x 9 ft structure of wooden-frame construction, located in the southeast section of the TA-16 administration area. There were no known hazardous materials used at this location (Blackwell 1983,15-16-076). This structure was not used for the handling or storage of hazardous materials (Blackwell 1983,15-16-076).

C-16-022 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.11 PRS C-16-023—Warehouse (OU 1082)

C-16-023 was warehouse TA-16-12, which was constructed in 1950 and removed in March 1956. It was a 20 x 108 x 12 ft wooden structure located at the northwest end of the administration area of TA-16 west of TA-16-10. The concrete foundation of this building remains in place. It was used to store decontaminated HE casting molds; HE was not stored in this type of building (Martin

1993, 15-16-477). There were no known hazardous materials used at this location (Blackwell 1983,15-16-076).

C-16-023 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.12 PRS C-16-024—Building (OU 1082)

C-16-024 was motor pool dispatch office TA-16-9, which was constructed in 1945 and removed in March 1956. It was of wooden-frame construction, and was located west of TA-16-10 and south of TA-16-12. There were no known hazardous materials used at this location (Blackwell 1983, 15-16-076). This structure was not used for the handling or storage of hazardous materials (Blackwell 1983,15-16-076).

C-16-024 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.13 PRS C-16-027—Building (OU 1082)

C-16-027 was Zia plumbing shop TA-16-17, which was constructed in 1945 and removed in March 1956. It was of wooden-frame construction and was located south of TA-16-10 on the west side of the road leading to TA-16-10. While there is an indication that this building was used for the handling of HE (Blackwell 1983,15-16-076), a private contractor was allowed to remove the structure in March 1956. Given that rigorously enforced site policy dictated that all buildings contaminated with HE were destroyed by burning, there is no reason to believe that the building or surrounding area was affected. Policy in effect in 1956 required that any building found to be contaminated with HE, however slightly, would be burned. The removal of TA-16-17 by a private contractor therefore precludes the possibility of residual HE contamination.

C-16-027 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.14 PRS C-16-029—Building (OU 1082)

C-16-029 was Zia electrical shop TA-16-3, which was constructed in 1944 and removed in March 1956. It was of wooden-frame construction and located south of TA-16-10 on the east side of the road leading to TA-16-10. Dimensions of the building were 25 x 48 x 8 ft. It appears that the building was used for storage of electrical supplies such as conduit and fixtures. There were no known hazardous materials used at this location (Blackwell 1983,15-16-076).

TA-16-3 was not used for handling or storage of hazardous materials (Blackwell 1983,15-16-076). There is no record of any spills or releases associated with this structure.

C-16-029 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.15 PRS C-16-032—Building (OU 1082)

This hose house, TA-16-167, was constructed in 1945 or 1946 and was removed in 1958. TA-16-167 was located northeast of TA-16-49. Hose houses, as the name implies, were situated adjacent to fire hydrants and were used to protect lengths of fire hose from the elements. Each was wooden-frame construction approximately 7 x 3 x 8 ft with two doors to protect the interior from the weather. There were no known hazardous materials used at these locations (Blackwell 1983,15-16-076).

C-16-032 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.16 PRS C-16-033—Warehouse (OU 1082)

C-16-033 was warehouse TA-16-85, which was constructed in 1945 and removed about January 1947. It was located just east of TA-16-3, TA-16-4, and TA-16-5. The structure consisted of four adjoining Pacific huts; dimensions were 32 x 32 x 9 ft. There were no known hazardous materials used at this location (Blackwell 1983,15-16-076).

C-16-033 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.17 PRS C-16-037—Storage Area (OU 1082)

C-16-037 was product storage area TA-16-23, which was constructed in 1945 and removed in March 1951. It was a wooden structure 16 x 24 x 9 ft in dimension, and was located at the south end of the administration area at TA-16. It was used for the storage of decontaminated HE casting molds (Martin 1993, 15-16-477). There were no known hazardous materials used at this location (Blackwell 1983,15-16-076).

C-16-037 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.18 PRS C-16-038—Storage Area (OU 1082)

C-16-038 was product storage area TA-16-11, which was constructed in 1949 and removed in March 1956. It was a 20 x 110 x 12 ft wooden structure, with a concrete foundation that is still present. The building was located to the west of TA-16-10 at TA-16. This area was used for storage of decontaminated HE casting molds (Martin 1993, 15-16-477). There were no known hazardous materials used at this location (Blackwell 1983,15-16-076).

C-16-038 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.19 PRS C-16-039—Building (OU 1082)

This hose house, TA-16-151, was constructed in 1945 or 1946 and was removed in 1958. TA-16-151 was located southwest of TA-16-42. Hose houses, as the name implies, were situated adjacent to fire hydrants and were used to protect lengths of fire hose from the elements. Each was wooden-frame construction approximately 7 x 3 x 8 ft with two doors to protect the interior from the weather. There were no known hazardous materials used at these locations (Blackwell 1983,15-16-076).

C-16-039 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.20 PRS C-16-040—Building (OU 1082)

This hose house, TA-16-152, was constructed in 1945 or 1946 and was removed in 1958. TA-16-152 was located near TA-16-37. Hose houses, as the name implies, were situated adjacent to fire hydrants and were used to protect lengths of fire hose from the elements. Each was wooden-frame construction approximately 7 x 3 x 8 ft with two doors to protect the interior from the weather. There were no known hazardous materials used at these locations (Blackwell 1983,15-16-076).

C-16-040 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.21 PRS C-16-042—Steam Manhole (OU 1082)

C-16-042 was steam manhole TA-16-511, which was constructed in 1945 and removed in 1968. It was a 4 x 4 x 4 ft reinforced concrete structure located on the south side of the entrance road to T-Site. It was used for the heating system distilled steam vapor or return cool-condensate water only. There were no known hazardous materials used at this location (Blackwell 1983,15-16-076). There is no record of any spills or releases associated with this structure.

C-16-042 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.22 PRS C-16-043—Steam Manhole (OU 1082)

C-16-043 was steam manhole TA-16-1084, which was constructed in 1944 (the removal date is unknown). It was located southeast of the intersection of T-Site Road and Anchor Ranch Road. It was used for the heating system distilled steam vapor or return cool-condensate water only. There were no known hazardous materials used at this location (Blackwell 1983,15-16-076). There is no record of any spills or releases associated with this structure.

C-16-043 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.23 PRS C-16-045—Manhole (OU 1082)

C-16-045 was manhole TA-16-168, which was removed in 1952 (the construction date is unknown). It was located in the administration area at TA-16. There were no known hazardous materials used at this location (Blackwell 1983,15-16-076). There is no record of any spills or releases associated with this structure.

C-16-045 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.24 PRS C-16-048—Steam Manhole (OU 1082)

C-16-048 was steam manhole TA-16-1083, which was constructed in approximately 1944 and abandoned in 1956. It was located in the administration area south of TA-16-10. It was used for the heating system distilled steam vapor or return cool-condensate water only. There were no known hazardous materials used at this location (Blackwell 1983,15-16-076). There is no record of any spills or releases associated with any of these structures.

C-16-048 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.25 PRS C-16-052—Steam Manhole (OU 1082)

C-16-052 was steam manhole TA-16-508, which was constructed in 1944 and removed in 1960. It was built of reinforced concrete with a wooden cover. The manhole was located at T-Site northwest of building TA-16-498. Dimensions were 4 x 4 x 4 ft. It was used for the heating system distilled steam vapor or return cool-condensate water only. There were no known hazardous materials used at this location (Blackwell 1983,15-16-076). There is no record of any spills or releases associated with this structure.

C-16-052 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.26 PRS C-16-053—Water Manhole (OU 1082)

C-16-053 was water manhole TA-16-508, which was constructed in 1944 and removed in 1960. It was located at T-Site south of the entrance road. Dimensions were 3 x 3 x 3 ft. It was used only for water. There were no known hazardous materials used at this location (Blackwell 1983,15-16-076). There is no record of any spills or releases associated with this structure.

C-16-053 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.27 PRS C-16-054—Steam Manhole (OU 1082)

PRS C-16-054 was steam manhole TA-16-509. This manhole was built of reinforced concrete; dimensions were 4 x 4 x 4 ft. It was located at T-Site south along the entrance road. It was used for the heating system distilled steam vapor or return cool-condensate water only. There were no known hazardous materials used at this location (Blackwell 1983,15-16-076). There is no record of any spills or releases associated with this structure.

C-16-054 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.28 PRS C-16-055—Switch Box (OU 1082)

C-16-055 was switch box TA-16-510 used for electrical switch gear, constructed in 1945, and removed in 1960. It was located at T-Site south of the entrance road at the east end. The switch box was of wooden-frame construction with dimensions of 2 x 11 x 5 ft, and was supported 3 ft above ground by two power poles. There were no known hazardous materials used at this location (Blackwell 1983,15-16-076). There is no record of any spills or releases associated with the structure.

C-16-055 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.29 PRS C-16-056—Steam Manhole (OU 1082)

C-16-056 is a steam manhole TA-16-1087. It is located near the 300-Line and is used only for the heating system distilled steam vapor or return cool-condensate water. There were no known hazardous materials used at this location (Blackwell 1983,15-16-076). There is no record of any spills or releases associated with this structure.

C-16-056 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.30 PRS C-16-057—Steam Manhole (OU 1082)

C-16-057 was steam manhole TA-16-1086, which was removed in 1970 (construction date unknown). It was located near the 300-Line. It was used only for the heating system distilled steam vapor or return cool-condensate water. There were no known hazardous materials used at this location (Blackwell 1983,15-16-076). There is no record of any spills or releases associated with this structure.

C-16-057 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.31 PRS C-16-059—Electrical Pit (OU 1082)

C-16-059, TA-16-524, was the location of an electrical pit constructed in 1944 and removed and backfilled in 1945. This pit, which was lined with railroad ties, provided electrical service outlets and working space under a section of B-29 fuselage that was used to conduct environmental, loading, and arming exercises on Fat Man mock-ups (Martin 1993, 15-16-477). This structure was not used for the handling or storage of hazardous materials (Blackwell 1983,15-16-076; Martin 1993, 15-16-477). There is no record of any spills or releases associated with this structure.

C-16-059 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.32 PRS C-16-066—Storage Area (OU 1082)

C-16-066 was storage area TA-16-186, which was established in 1945, abandoned in place in 1960, and removed some time thereafter. It served utility room TA-16-35 at TA-16. While the structure list designates this as drum storage/bandstand, which usually meant a place where drums of scrap HE were accumulated, it was actually used to store tools and equipment for servicing TA-16-35. TA-16-35 was an equipment room that housed machinery such as the air compressors that were used to drive the HE machining equipment in nearby machining bays. A former site worker states that the SWMU Report erroneously designates this as a chemical storage area (Martin 1993, 15-16-477).

C-16-066 is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.33 PRS 20-003(d)—Firing Site (OU 1100)

This PRS is identified as a gun-firing site, Structure TA-20-29. It was built in February 1945 and removed in April 1948. The purpose of the structure is not known. Given its location near Manhole TA-20-3, it is probable that this structure was associated with firing site PRS 20-002(d).

NFA is recommended for this PRS because it is part of PRS 20-002(d).

The location of this PRS is not shown on a map in Appendix A in this document.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.1.34 PRS 25-001—Pit (OU 1082)

SWMU 25-001 is a pit associated with TA-25-9. Engineering drawing ENG-C 1840 indicates that V-9 (TA-25-9) is the same as TA-16-523. SWMU 25-001 is, therefore, a duplicate of SWMU 16-029(g2), which is addressed in Subsection 6.4.1.1 of the OU 1082 work plan.

SWMU 25-001 is recommended for NFA under Criterion 1 because it is inaccurately listed as a separate site from SWMU 16-029(g2).

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.35 PRS C-25-001—Building (OU 1082)

C-25-001 is identified in the SWMU Report as a former location of beryllium operations housed in building V-3 (LANL 1990, 0145). Based on a review of engineering drawings, C-25-001, which is associated with building V-3, is a duplicate of C-16-068, which is associated with TA-16-522 (a later designation for V-3).

C-25-001 is recommended for NFA under Criterion 1 because it is inaccurately listed as a separate site from C-16-068, which has been addressed in Subsection 5.25 of the OU 1082 workplan.

EPA Review: OU 1082 NOD dated 10/20/94.

2.2.1.36 PRS 35-004(j)—Container Storage Area (OU 1129)

PRS No. 35-004(j) is a former container storage area, which was located on a loading dock on the southwest side of TA-35-128, where oils, capacitors, solvents, and Freon were stored. The site of the former storage area could not be determined because the entire area around the south and west sides of Building 35-128 has been covered with asphalt. A loading area and a parking area are present at the southwest portion of this building, and a concrete sidewalk is located south of the building. This PRS is recommended for NFA under Criterion 1. The PRS cannot be located.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.1.37 PRS 35-014(c)—Operational Release (OU 1129)

PRS No. 35-014(c) is a 10-ft-wide by 20-ft-long stained area observed on a sloping surface near the southeast corner of TA-35-29. This stained area may be the result of a past dielectric oil spill from nearby aboveground storage tanks. The tanks are labeled as PCB-free. In 1992 the site of PRS No. 35-014(c) was excavated, backfilled, and covered with asphalt.

PRS 35-014(c) is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.1.38 PRS 48-007(e)—Outfall (OU 1129)

PRS No. 48-007(e), an outfall, was submitted to the EPA in May 1985 for inclusion under the National Pollutant Discharge Elimination System permit but was dropped from the permit in 1991. The outfall discharged a maximum of 500 gal./h as noncontact cooling water used to cool an electromagnet in the northwest corner of TA-48-8. The outfall has been used since 1984. The water discharged in the outfall was used for once-through cooling, and chemicals or solvents did not have access to the cooling water system. In 1991 samples were collected in the area to determine if COCs (including acetone, alcohol, and benzene) had been discharged. The analysis revealed background levels of gross-alpha, -beta, and -gamma and indicated that all TCLP metals were below the regulatory levels in 40 CFR 261.24. No SVOCs or PCB compounds were detected, but trace amounts (<52 ppb) of p-isopropyl toluene (p-Cymene), isopropylbenzene (cumene), and trichlorotrifluoroethane (Freon) were detected in the samples collected.

This PRS is recommended for NFA under Criterion 1. The outfall has not been used for the management of RCRA solid or hazardous wastes (which has been verified through sampling) and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.1.39 PRS 48-009—Soil Contamination (OU 1129)

PRS No. 48-009 is the site of two air compressors located on a loading dock east of TA-48-1. Since 1989 the main compressor has periodically broken down and sprayed crankcase oil on the ground. The oil was sampled in 1989 and does not contain PCBs.

This PRS is recommended for NFA under Criterion 1. The site has never been used for the management of RCRA solid or hazardous wastes and/or constituents or other CERCLA hazardous substances.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.1.40 PRS 55-010—Solvent Spill (OU 1129)

PRS No. 55-010 is the site of a one-time spill of solvent that contained methyl ethyl ketone with smaller quantities of toluene and methyl isobutyl ketone. The mixture was an organic solvent for plastic paint. During the construction of the basement of TA-55-4, the painting contractor for TA-55 cleaned painting materials in the area. The area was backfilled with approximately 18 ft of fill and capped with asphalt after TA-55-4 was completed.

This PRS is recommended for NFA under Criterion 1 because the spill was a one-time event and the potentially contaminated soil can no longer be located because of construction at the site.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.1.41 PRS 61-001—Transformer Storage Area (OU 1114)

SWMU 61-001 is a duplicate of SWMU 61-002. SWMU 61-001 is described in the SWMU Report as an active PCB storage area at TA-61-23. SWMU 61-002 is listed as being an inactive site at the same location. Because there has been only one storage area at this building, it is believed that SWMUs 61-001 and 61-002 are the same unit (Griggs 1992, 17-672). SWMU 61-002 was sampled in August of 1994 and will be recommended for NFA in the November 1995 RFI report under Criterion 4. SWMU 61-002 is discussed in Chapter 5, Subsection 5.10 [Note: SWMU 61-002 is listed as 3-003(c) in the 1988 Module VIII]. (Text as revised for NOD, 3/94.)

PRS 61-001 is proposed for NFA because it is a duplicate of PRS 61-002.

EPA Review: OU 1114 RFI work plan review letter dated 1/7/94.

2.2.1.42 PRS 61-004(b)—Septic Tank (OU 1114)

SWMU 61-004(b) is an abandoned septic tank that was encountered during trenching activities conducted as part of a PCB cleanup in September 1989. The cinder block structure was discovered approximately 1 ft below the surface on the south side of East Jemez Road. The site is located approximately eight-tenths of a mile east of the intersection of East Jemez Road and Diamond Drive. The structure is approximately 6 x 8 x 6 ft deep, with a corrugated tin roof covered with concrete. At the time of discovery, there was a 6-in. feeder pipe protruding from the top and a 6-in. effluent pipe protruding from the side wall, leading to the conclusion that the structure was probably a septic tank. The northwest corner of the tank was cracked open by the trenching equipment. Visual inspection indicated that the tank was dry (LANL 1992, 17-694).

The septic tank was used for disposal of sanitary wastes generated by contracting firms operating in the vicinity, as documented in historical aerial photographs of the area (LANL 1992, 17-692). Operations conducted in the buildings did not generate hazardous waste. The tank was never removed after the contracting firm's trailers were removed from the area.

PRS 61-004(b) is proposed for NFA because there is no evidence that it was used for the management of RCRA solid or hazardous waste and/or constituents, or other CERCLA hazardous substances.

EPA Review: OU 1114 RFI work plan review letter dated 1/7/94.

2.2.1.43 PRS 72-002—Firing Site (OU 1100)

This PRS is identified as an "open detonation" and "mortar impact" area in Sandia Canyon (former TA-20). Research conducted regarding this PRS does not support the idea that the site was used as an impact area. A review of relevant documentation concludes that Sandia Canyon was not used as an impact area.

NFA is recommended for this PRS because there is no evidence that it was used for the management of RCRA solid or hazardous waste and/or constituents, or other CERCLA hazardous substances.

The location of this PRS is not shown on the map for TA-72 in Appendix A of this document.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.1.44 PRS 72-003(a)—Septic System (OU 1100)

This PRS consists of an active septic tank (TA-72-18), a leach field, and connecting drainlines. This septic system served the active firing range since 1989. It currently receives only sanitary wastes. On the basis of an onsite inspection and a review of waste management practices, it is extremely unlikely that this system has ever received wastes other than sanitary wastes.

NFA is recommended for this PRS because there is no evidence that it was used for the management of RCRA solid or hazardous waste and/or constituents, or other CERCLA hazardous substances.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.1.45 PRS 72-003(b)—Septic System (OU 1100)

This PRS consists of a septic tank (TA-0-276) and its associated drainline. It was identified twice in the SWMU Report—as 72-003(b) and as 20-004(Septic Tank TA-20-49). TA-20-49 was later renumbered TA-0-276.

NFA is recommended because it is the same site as PRS 20-004.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.2 NFA Criterion 2. No release to the environment has occurred.

Definition of release: "Release" means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes (including hazardous constituents) into the environment.

2.2.2.1 PRS 3-013(c)—Operational Release (OU 1114)

SWMU 3-013(c) was a cable cleaning site, now removed. New steel cable received by the Laboratory was soaked in a kerosene bath to remove factory-applied preservatives (petroleum-based paraffins and greases). This cleaning operation was performed on a paved asphalt area located approximately 200 ft west of TA-3-38 in the Johnson Controls storage yard. The area surrounding the SWMU has always been asphalted and has not been repaved since the cable-cleaning operations ceased in the mid to late-1980s. Runoff flows south to a storm drain about 200 ft from the pad and daylights 500 yards away. The first sediment catchment basin is located at the NPDES permit location an additional 500 ft downstream. The outfall was sampled in 1994, associated with SWMUs 3-013(a,b); no contamination was found.

For cable-cleaning operations, a 10 x 20 ft, 4-in.-deep bed of sand, underlain by plastic and surrounded by a one-foot-high sand berm, was built in the middle of the asphalt pad. A 1 200-gal. tank containing kerosene was located on the sand bed and the new cables were placed in the tank to soak. Kerosene frequently spilled from the tank onto the sand bed. Cleaned cables were suspended above the tank for a period of time to allow residue to drain; any remaining kerosene evaporated or dripped onto the sand bed and plastic liner surrounding the tank. The cables were then placed in wooden shipping boxes.

The sand bed and plastic liner were removed after each cable-cleaning operation and discarded at the Los Alamos municipal landfill. Kerosene remaining in the tank was recycled. In 1991, this operation, including the tank, was moved to TA-60. The area was swept clean and all sand was disposed of in the municipal landfill (LANL 1992, 17-739). There are some small (1- to 6-in. diameter) oil stains on the asphalt in or near the area, but no evidence that any significant releases occurred. (Text as revised for NOD, 3/94.)

PRS 3-013(c) is proposed for NFA because there is no evidence that any release to the environment has occurred, and sampling at the associated outfall indicates no contaminants are present.

EPA Review: OU 1114 RFI work plan review letter dated 1/7/94.

2.2.2.2 PRS C-4-001—Former Building Location (OU 1129)

PRS No. C-4-001 consists of potential soil contamination beneath several former structures at Technical Area (TA) -4. TA-4-1, TA-4-2, and TA-4-8 were explosives magazines; TA-4-4 was used to store batteries; TA-4-5 was used as a storage building; TA-4-6 was used as a trimming building; and TA-4-13 is described as a hutment. These structures were built in 1945. TA-4-1 was demolished in 1985, and the other buildings were demolished in 1956. All the sites were monitored for radioactivity, and the surface was reclaimed during the Los Alamos Site Characterization Program (LASCP) decontamination and decommissioning (D&D) project in 1985.

This PRS is recommended for NFA under Criterion 2. According to archival information, no RCRA solid or hazardous wastes or radioactive wastes were released to the environment at this site.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.2.3 PRS 5-006(d)—Former Building Location (OU 1129)

PRS No. 5-006(d) is the site of a former laboratory (TA-5-6) built in 1944. In 1959 the building was found to be free of radioactive contamination and toxic materials, but it was found to be contaminated with HE. The building was burned. Surface debris was removed, and the site was recontoured in 1985.

This PRS is recommended for NFA under Criterion 2. According to archival information, no known RCRA solid or hazardous wastes and/or radioactive wastes were released to the environment.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.2.4 PRSs 5-006(f and g)—Former Building Locations (OU 1129)

PRS Nos. 5-006(f and g) are the sites of former magazines TA-5-2 and TA-5-3. The buildings were built in 1945; they were burned in 1960 because they were found to be contaminated with HE. Miscellaneous building debris was removed during the D&D efforts of the LASCP project in 1985, and no radioactive contamination was found in the area. After the area was scanned using portable instruments, samples were collected, and depleted uranium was not found. Soil from TA-5-3 was then used to backfill the areas of TA-5-5, TA-5-7, TA-5-9, and TA-5-15. Soil from TA-5-2 was used to backfill TA-5-7, TA-5-9, and TA-5-15. After the areas were cleared of debris, they were contoured to existing terrain and reclaimed.

This PRS is recommended for NFA under Criterion 2. According to archival information, no known RCRA solid or hazardous wastes or radioactive wastes were released to the environment at this site.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.2.5 PRS 11-010(a)—Container Storage Area (OU 1082)

SWMU 11-010 (a) is rest house TA-11-36 located at TA-11. Rest houses are auxiliary buildings used as intermediate storage points in the distribution of HE material. Rest houses were incorporated into the design of the TA-11 and TA-16 explosives process buildings that were constructed in the late 1940s and early 1950s. They function as intermediate storage areas for raw explosives being delivered to process buildings, for finished products ready for transport, or for scrap being removed for disposal.

The container storage area at TA-11 that functions similarly to the rest houses is remote from other buildings and surrounded by a berm.

A typical rest house at the S-Site complex is a reinforced-concrete building about 40 ft long x 20 ft wide. Heavy double doors open to an exterior loading dock at the front. There are no windows. Floors are painted, polished concrete. Open-lattice metal doors connect the rest house with the walk way. This rest house has no exterior drains.

High-explosive material is transported to and from the rest house on 6 ft long x 3 ft wide flat-bed, wheeled, Colson carts. The carts are open-sided but have bungee ropes along the sides to cushion the contents and prevent containers from slipping off. High explosives are always packaged in cardboard but may be stored on the carts in a variety of secondary outer containers including cardboard boxes, cardboard drums, wooden boxes, or wooden crates.

All rest houses are currently part of active operations, managed under rigid safety procedures. Activities are currently covered under standard operating procedures (SOPs) (Barr 1992, 15-16-329). Activities have always been conducted in compliance with DOE Explosives Safety Manual DOE/E1/06194 (DOE 1991, 15-16-309) and its Department of Defense predecessors.

Containerized HE material is delivered to and from rest houses under strictly controlled operating procedures. Rest houses are cleaned and maintained on regular schedules. Then, cleaning water and all materials are collected, packaged, and transported to the TA-16 burning ground for treatment. Any special activities in a rest house require a safety work permit issued by the Engineering and Information Resources Group (WX-12) safety office or its predecessors. Recent field screening indicates that no HE material has leaked or spread from any of these structures to the exterior loading docks (Barr 1992, 15-16-329).

SWMU 11-010(a) is recommended for NFA under Criterion 2. This PRS has no credible pathway by which a release to the environment could have occurred.

EPA Review: OU 1082 work plan review letter dated 12/22/94.

2.2.2.6 PRS 35-004(l)—Container Storage Area (OU 1129)

PRS No. 35-004(l) is the site of an inactive container storage area, which is located west of TA-35-244, where oils, capacitors, solvents, and Freon have been stored. The paved area shows no evidence of spills or stains. It is not known if the asphalt was present when the area was used for storage.

This PRS is recommended for NFA under Criterion 2. According to archival information, spills or releases to the environment did not occur.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.2.7 PRS 35-004(o)—Container Storage Area (OU 1129)

PRS No. 35-004(o) is a container storage area at the north dock of TA-35-213. Materials that could have been stored in this area include solvents, chemicals, and Kimwipes. This container storage area is located on a concrete and asphalt pad inside a security fence. No evidence of staining or spills exists; therefore, this AOC is recommended for NFA under Criterion 2. No release to the environment has occurred.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.2.8 PRS 35-018(b)—Former Transformer Site (OU 1129)

PRS No. 35-018(b) is a transformer (PCB ID No. 5547) located in the basement of TA-35-2. A leak from the transformer was discovered and cleaned up in 1985. This release was assessed to be a moderately active leak with no spill containment. Swipe samples taken from the concrete floor in the vicinity of the transformer after the spill cleanup contained up to 184 µg/100 cm^2 PCBs. It is believed that the transformer has had no releases outside the basement.

This PRS is recommended for NFA under Criterion 2 because no release to the environment has occurred and the area is under institutional control.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.2.9 PRSs C-35-001, C-35-002, and C-35-003—Former UST Sites (OU 1129)

PRS No. C-35-001, PRS No. C-35-002, and PRS No. C-35-003 are the sites of former underground storage tanks (USTs) that were used to store fuel oil. PRS No. C-35-001 (TA-35-18) was located north of the south wing of TA-35-2; PRS No. C-35-002 (TA-35-19) and PRS No. C-35-003 (TA-35-20) were located southeast of TA-35-2. The tanks were removed in 1988 and were reportedly in good condition. Contamination was not visible in the surrounding soils; however, soil samples were not collected when the tanks were excavated.

According to archival information, there was no release to the environment; therefore, these PRSs are recommended for NFA under Criterion 2.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.2.10 PRS 48-002(c)—Container Storage Area (OU 1129)

PRS No. 48-002(c) is the site of an inactive container storage area located east of TA-48-1 on an asphalt pad between TA-48-91 and the security fence. Drums, lead pigs, and batteries were stored here in 1988 and 1989. Archival information indicates that this area has had no releases or spills. Runoff from this AOC flows toward a proposed parking lot 30 ft due east. The proposed parking lot was sampled in 1991 by personnel from Group EM-8 (now Group ESH-8) for surface and subsurface contamination. The levels of all organic, inorganic, and radiological constituents were below EPA regulatory guidelines. According to archival information, spills or releases did not occur and sampling results were below EPA regulatory thresholds; therefore, this PRS is recommended for NFA under Criterion 2.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.2.11 PRSs C-52-001 and C-52-002—Former Transformer Sites (OU 1129)

PRS No. C-52-001 and PRS No. C-52-002 are sites of possible soil contamination associated with substation TA-52-9, (electrical transformer structure) north of the Ultra-High-Temperature Reactor Experiment (UHTREX) building, TA-52-1. The transformers have been replaced during the recent past (equipment is dated 1994) and are labeled as having less than 50 ppm PCBs. The concrete pad was inspected for signs of spills and staining, but none were found. The transformers and the pad are clean and devoid of any sign of leakage. Asphalt is present on the north, west, and east sides of the concrete pad, and Building 52-1 is adjacent to the pad on the south. There is no soil present within at least 40 feet of the transformer pad.

These PRSs are recommended for NFA under Criterion 2 because no release to the environment has occurred.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.2.12 PRS 53-001(d)—Storage Area (OU 1100)

This PRS is a waste storage area located outside the southwest side of Building TA-53-14 (a general laboratory facility). Materials stored at this PRS included solvent-contaminated rags, acetone, ethanol, trichloroethane, and Freon.

The area is identified in a 1989 Laboratory photograph as a satellite-accumulation-area. Two drums bearing hazardous waste labels were visible next to a flammable-materials storage cabinet; some staining can be seen on the asphalt surface below the cabinet and may be present beneath the drums as well.

When the site was inspected, the satellite area could not be located. It apparently had been removed. No staining on the asphalt was noted. An addition to the TA-53-14 building, at the southwest corner, may cover the former location of this PRS.

NFA is proposed for this PRS because no release to the environment has occurred.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.2.13 PRS 53-001(f)—Storage Area (OU 1100)

This PRS was identified as a waste storage area on the first floor of Building TA-53-18. Solvents, Freon, epoxy, and resins were stored at this PRS, which was verified by an onsite inspection. At the time of the inspection, various wastes were found stored in 5-gal. and 30-gal. containers: epoxy and other chemicals; solvent-contaminated rags and kimwipes; oil rags; waste oil; mixtures of halogenated organics, including trichloroethane, Freon, and cutting fluids; and mixtures of nonhalogenated organics, including acetone, Stoddard solvent, mineral spirits, alcohol, and ethylene glycol.

NFA is proposed for this PRS because no release to the environment has occurred.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.2.14 PRS 53-001(h)—Storage Area (OU 1100)

This PRS consists of four waste storage areas in the Ground Test Accelerator facility: one on the first floor at the east end of the high bay; one at the east end of the beam tunnel; one on the mezzanine; and one in Room 302. When these areas were inspected, only two of the four areas were found. An area on the first floor at the east end of the high bay contained 30-gal. drums of trichloroethane, solvent-contaminated rags, solvent mixtures (ethanol, methanol, and acetone), oily rags, and waste oil; and the same types of wastes were found stored in an area at the east end of the beam tunnel.

No waste accumulation area was found on the mezzanine or in Room 302.

NFA is proposed for this PRS because no release to the environment has occurred.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.2.15 PRS 53-001(i)—Storage Area (OU 1100)

This PRS is three waste storage areas located at TA-53-15, a laboratory facility for LANSCE. One area is identified at the west side, one in Room 103, and one in Room 105. They were reported to contain solvents, empty reagent bottles, organics, and solvent-contaminated rags.

All three sites were inspected. The site identified at the west side of the building was actually located inside the building; it was not in use at the time of inspection. The other two sites are satellite storage areas located inside chemical exhaust hoods.

NFA is proposed for this PRS because no release to the environment has occurred.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.2.16 PRS 53-001(j)—Storage Area (OU 1100)

This PRS is identified as an area at the southwest corner of Building TA-53-30, a high-bay facility for the Los Alamos Neutron Scattering Center (LANSCE) beam-line experiments. It was used to store solvent-contaminated rags. This was confirmed during an August 1993 inspection, when 30-gal. drums of solvent-contaminated rags were found. During a second inspection in September 1993, the area was no longer being used. Laboratory staff confirmed that the area was no longer needed because nonhazardous cleaning products were being used. No staining of the asphalt was noted during these inspections.

NFA is proposed for this PRS because no release to the environment has occurred.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.2.17 PRS 53-001(k)—Storage Area (OU 1100)

This PRS is a waste storage area in the middle of the road at the north side of Building TA-53-7 (a beam-line experimental facility originally known as Weapons Neutron Research (WNR). Solvent-contaminated rags were stored at this site.

When the site was inspected, no waste storage area was located.

NFA is proposed for this PRS because no release to the environment has occurred.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.2.18 PRS 53-001(l)—Storage Area (OU 1100)

This PRS is defined as a waste storage area located outside the north wall of Building TA-53-26 (a technical shop south of Building TA-53-3). It was used for storing solvent- and freon-contaminated rags.

When the site was inspected, this waste accumulation had been replaced by a satellite area inside the building (Room 101, south of the divider wall). The site of the former area was located on the asphalt outside the north wall, near the door. There was no evidence of staining.

NFA is proposed for this PRS because no release to the environment has occurred.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.2.19 PRS 53-001(m)—Storage Area (OU 1100)

This PRS is identified as a waste storage area in Room 103 of the Proton Storage Ring Staging building at TA-53. Acetone- and ethanol-contaminated rags and kimwipes were stored in this area.

During a site inspection, a satellite accumulation area was located in Room 103 that contained a 55-gal. drum of solvent-contaminated rags.

NFA is proposed for this PRS because there is no evidence of release to the environment.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.2.20 PRS 53-001(n)—Storage Area (OU 1100)

This PRS is a waste storage area inside the west end of Building TA-53-19, which houses the Accelerator Technology Laboratory. It reportedly contained solvent-contaminated rags, acetone, ethanol, trichloroethane, and Freon.

An onsite inspection revealed a satellite accumulation area inside the west end of the building, along the north wall. It housed several 30-gal. drums containing acetone and ethanol, Freon, ethanol- and acetone-contaminated rags and kimwipes, oil rags, and waste oil.

NFA is proposed for this PRS because no release to the environment has occurred.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.2.21 PRS 53-001(o)—Storage Area (OU 1100)

This PRS is a waste storage area located in Room 317 of Building TA-53-622, which houses an office and laboratory for LANSCE. It was used for the storage of photographic chemicals. During

a site inspection, photographic chemicals were found, stored in various-sized containers, in Room 317.

NFA is proposed for this PRS because no release to the environment has occurred.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.2.22 PRS 53-003—Septic Tank (OU 1100)

This PRS is a sanitary waste holding tank, identified as Structure TA-53-1016, that received discharges from a toilet, a shower, and two sink drains in Building TA-53-442 (a small office trailer). It has no seepage trench or bed and no overflow. It is regularly pumped out.

NFA is proposed for this PRS because no release to the environment has occurred.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.2.23 PRS 55-002(c)—Container Storage Area (OU 1129)

PRS No. 55-002(c) is an outdoor waste container storage area (asphalt pad) located on the west side of TA-55-4. This area is an interim storage area for wooden crates containing radioactive and mixed waste that are awaiting transport to TA-54 (see Section 3.7.2.1 of the RFI work plan for OU 1129).

This PRS is recommended for NFA under Criterion 2 because there has been no release to the environment.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.2.24 PRS 55-012—Container Storage Area (OU 1129)

PRS No. 55-012 is the site of a bottle containing waste acid and heavy metals that was stored on a shelf in a laboratory in TA-55-4 (see Section 3.7.2.1). The bottle was removed and the contents disposed of before a site visit in November 1990.

This PRS is recommended for NFA under Criterion 2 because no release to the environment has occurred.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.2.25 PRS 57-005—Pond Filtration Unit (OU 1154)

The settling pond filtration unit was a system of pipes and filter units designed to remove particulates from the pond water. The pond water was filtered through the sand to remove most of the particulates and then flowed through charcoal-containing canisters to remove the finer particles. The sand and charcoal material was periodically cleaned out of the tanks and canisters by backwashing into the GTP-1 Pond. The filtration unit was taken out of service in 1989 or 1990, and is inactive. A visual inspection of the unit in October 1993 showed no signs of leakage or deterioration.

Potential Release Site 57-0005, the Pond Filtration Unit, is recommended for NFA under Criterion 2.

The pond filtration unit was located on the ground surface, and its components were readily visible for inspection. No significant leaks were documented during the period that it was in service, and there is no evidence of any releases of hazardous materials to the environment. Any particulates accumulated on the filters were periodically backwashed into the GTP-1 pond and

ultimately disposed of at the sludge pit. The unit is no longer being used. It does not pose a threat to human health or the environment; nor has it posed a threat in the past.

EPA Review: OU 1154 RFI work plan review letter dated 5/30/95

2.2.2.26 PRS 63-002—Container Storage Area (OU 1129)

PRS No. 63-002 is a container storage area in a fenced yard that is east of the north parking lot at TA-63. During a 1991 ER Program inspection, several drums of solvent were observed in the bermed part of the storage area (see Section 3.8.2.1 of the RFI work plan for OU 1129). No staining or traces of waste were observed during a site visit in 1992.

This PRS is recommended for NFA because there have been no releases to the environment; additionally, site design would preclude any spills from migrating to the environment.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.3 NFA Criterion 3. The PRS is regulated or closed under a different authority which addresses corrective action.

2.2.3.1 PRSs 3-001(m,p,r)—Satellite Storage Areas (OU 1114)

PRSs 3-001(m,p,r) at TA-3-41, TA-3-37, and TA-3-409, respectively, are currently operational as approved accumulation areas and are managed under the approved Laboratory spill prevention control and countermeasures plan. The EPA and the Laboratory have agreed that accumulation areas are not PRSs provided that they have no history of release and have no credible pathway to the environment (Twombly 1992, 17-681). These PRSs, listed in Table 6-4, meet these criteria; they are either indoors with no potential for leaks beyond the building or they were extensively cleaned for the Department of Energy (DOE) Tiger Team inspection in 1991. None have a history of prior release. These PRSs are currently listed on the Laboratory registry of satellite and less-than-ninety-day accumulation areas.

PRSs 3-001(m,p,r) are proposed for NFA because they are regulated under RCRA as approved accumulation areas with no history of release and no credible pathway to the environment.

EPA Review: OU 1114 RFI work plan review letter dated 1/7/94.

2.2.3.2 PRS 3-044(b)—Container Storage (OU 1114)

PRSs 3-044(b) is currently operational as an approved accumulation area at TA-3-102, Room 118, and is managed under the approved Laboratory spill prevention control and countermeasures plan. The EPA and the Laboratory have agreed that accumulation areas are not PRSs provided that they have no history of release and have no credible pathway to the environment (Twombly 1992, 17-681). This PRS, listed in Table 6-4, meets these criteria. It is located indoors with no potential for leaks beyond the building. It has no history of prior release. This PRS is currently listed on the Laboratory registry of satellite and less-than-ninety-day accumulation areas.

PRS 3-044(b) is proposed for NFA because it is regulated under RCRA as an approved accumulation area with no history of release and no credible pathway to the environment.

EPA Review: OU 1114 RFI work plan review letter dated 1/7/94.

2.2.3.3 PRS 14-004(a,c)—Storage Areas (OU 1085)

Located at TA-14, these PRSs are satellite storage areas used for scrap HE. These PRSs are regulated under 40 CFR 262.

Because these PRSs are regulated under a different authority, NFA is proposed for these storage areas.

EPA Review: OU 1085 RFI work plan review letter dated 12/22/94.

2.2.3.4 PRS 15-014(f)—Outfall (OU 1086)

This PRS is located 5 ft south and 13 ft east of the southwest corner of Building TA-15-263. The outfall empties into a ditch that runs into Three-Mile Canyon. Once-through cooling water is the only source of liquid for this outfall, which is covered by EPA Permit No. 04A 121.

This PRS is recommended for NFA because it is regulated under a different authority.

EPA Review: OU 1086 RFI work plan review letter dated 1/9/95.

2.2.3.5 PRS C-15-013—Underground Tank (OU 1086)

This PRS is an inactive, 200 gal. underground storage tank used in the past for ethylene glycol. Located near Building TA-15-184, the tank is fiberglass and was installed in 1977.

This PRS is recommended for NFA because the tank is not in use and ethylene glycol is not regulated under RCRA.

EPA Review: OU 1086 RFI work plan review letter dated 1/9/95.

2.2.3.6 PRS 22-001—Building (OU 1111)

PRS 22-001, a concrete and soil magazine, was used from the 1950s until 1982 for the storage of solid waste contaminated by explosives (LANL 1990, 0145). The unit was closed under an approved RCRA closure plan in 1988 (LANL 1990, 0145).

EPA Review: OU 1111 RFI work plan review letter dated 10/19/94.

2.2.3.7 PRS 22-003(a-g)—Satellite Storage Areas (OU 1111)

Potential Release Sites (PRSs) 22-003 (a-g) are satellite solid waste storage areas. They are posted as such and are regulated by RCRA generator requirements. The locations of the areas are moved short distances as necessary for proper management of building space. Therefore, present locations are not necessarily those given in the SWMU Report (LANL 1990, 0145).

EPA Review: OU 1111 RFI work plan review letter dated 10/19/94.

2.2.3.8 PRS 22-013—Liquid Waste Treatment/Storage (OU 1111)

Two 1000-gal. tanks (22-013) in Building TA-22-91 receive liquid wastes from etching operations. The liquid wastes are neutralized in these tanks to produce a liquid and a sludge. The sludge is picked up and disposed of by the Laboratory's Waste Management Group (EM-7). The treated liquid is discharged through NPDES Outfall 128 (LANL 1990, 0145).

The neutralization tanks (22-013) are exempt from RCRA requirements for permits.

EPA Review: OU 1111 RFI work plan review letter dated 10/19/94.

2.2.3.9 PRSs 40-002(a-c)—Container Storage Areas (OU 1111)

PRSs 40-002(a-c) are satellite solid waste storage areas. They are posted as such and are regulated by RCRA generator requirements. The locations of the areas are moved short distances as necessary for proper management of building space. Therefore, present locations are not necessarily those given in the SWMU Report (LANL 1990, 0145).

The locations of PRSs 40-002(b,c) are not shown on the map of TA-40 in Appendix A of this document.

EPA Review: OU 1111 RFI work plan review letter dated 10/19/94.

2.2.3.10 PRS 40-003(b)—Burning Area/Open Detonation (OU 1111)

PRS 40-003(b) is an adjacent area that was used for disposal of scrap explosives and detonators from the late 1950s through 1985; they are located abut 450 ft east of Firing Chamber TA-40-15 (LANL 1990, 0145). Explosives and their residues, lead, barium, nitrate, cyanide, and organic compounds may be present. This area is being closed under an approved RCRA closure plan (LANL 1991, 19-0116), as described in the installation work plan (IWP) in Section 3.6.1 (LANL 1992, 0768). Characterization of this PRS is now in progress. An amendment to the closure plan

was submitted to the New Mexico Environmental Department in May 1993. The Department of Energy and the University of California will complete closure activities according to the approach laid out in the closure plan (IWP, Section 3.6.1) (LANL 1992, 0768).

PRS 40-003(b) is being closed under an approved RCRA closure plan. Because the closure plans specify that this PRS will be cleaned to acceptable risk-based criteria, no further action beyond that specified in or carried out under the closure plan is recommended.

EPA Review: OU 1111 RFI work plan review letter dated 10/19/94.

2.2.3.11 PRS 40-008—Decommissioned HE Storage Area (OU 1111)

PRS 40-008, a magazine, was used for a short time during the 1980s to store scrap waste contaminated by explosives (LANL 1990, 0145). This storage area has been closed under an approved RCRA closure plan (LANL 1990, 0145).

EPA Review: OU 1111 RFI work plan review letter dated 10/19/94.

2.2.3.12 PRS 53-011(a)—Transformer (OU 1100)

This PRS is a PCB transformer, Serial No. 5043, located at Structure TA-53-196. It is a pole-mounted transformer on the north side of the utilities access road northwest of Building TA-53-1. It was clean, appeared in good condition, and showed no signs of leaks.

NFA is proposed for this PRS because its cleanup is regulated under another program: the EPA, under the Toxic Substances Control Act (TSCA), regulates the operation and maintenance of electrical equipment containing PCBs.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.3.13 PRS 53-011(b)—Transformer (OU 1100)

This PRS is a PCB transformer, Serial No. 5043, located at Structure TA-53-196. It is a pole-mounted transformer on the north side of the utilities access road northwest of Building TA-53-1. It was clean, appeared in good condition, and showed no signs of leaks.

NFA is proposed for this PRS because its cleanup is regulated under another program: the EPA, under TSCA, regulates the operation and maintenance of electrical equipment containing PCBs.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.3.14 PRS 53-011(c)—Transformer (OU 1100)

This PRS is a PCB transformer, Serial No. 5054, located at Structure TA-53-184. It is a roof-mounted transformer on the north side of Structure TA-53-3, north of the beam switchyard. It was clean, appeared in good condition, and showed no signs of leaks.

NFA is proposed for this PRS because its cleanup is regulated under another program: the EPA, under TSCA, regulates the operation and maintenance of electrical equipment containing PCBs.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.3.15 PRS 53-011(d)—Transformer (OU 1100)

This PRS is a PCB transformer, Serial No. 5034, with a 205-gal. capacity, located at Structure TA-53-71 (a substation north of Sector A at TA-53-3). The transformer was clean, appeared in good condition, and showed no sign of leaks. It is situated on a concrete pad that has a concrete curb

to contain spills and a drain on the north side. The drain is equipped with a valve for discharge to the ground, but there was no evidence of oil stains on the ground at the discharge point.

NFA is proposed for this PRS because its cleanup is regulated under another program: the EPA, under TSCA, regulates the operation and maintenance of electrical equipment containing PCBs.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.3.16 PRS 53-011(e)—Transformer (OU 1100)

This PRS is identified as a leaking transformer at Structure TA-53-123, north of the utilities access road, about 0.25 miles east of the west end of La Mesita Road. No serial number was given for the transformer. When the vicinity was inspected, not only were no leaking transformers identified, but the structure could not be found.

NFA is proposed for this PRS because its cleanup is regulated under another program: the EPA, under TSCA, regulates the operation and maintenance of electrical equipment containing PCBs.

The location of this PRS is not shown on the map of TA-53 in Appendix A of this document.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.3.17 PRSs C-53-001 through C-53-010—Transformers (OU 1100)

The following PRSs are transformers that are located at TA-53. NFA is proposed for these PRSs because their cleanup is regulated under another program: the EPA, under TSCA, regulates the operation and maintenance of electrical equipment containing PCBs. A description of each transformer follows:

C-53-001: Transformer, Serial No. 16887, located at unit substation TA-53-51 at the north side of Building TA-53-2.

C-53-002: Transformer, Serial No. G859183, located at substation TA-53-67 at the southwest corner of Sector M, TA-53-3.

C-53-003: Transformer, Serial No. G83266A, located at unit substation TA-53-170 at the southwest corner of Sector M, TA-53-3.

C-53-004: Transformer, Serial No. G853266B, located at unit substation TA-53-171 at the southwest corner of Sector M, TA-53-3.

C-53-005: Transformer, Serial No. G853264A, located at unit substation TA-53-172 at the southwest corner of Sector M, TA-53-3.

C-53-006: Transformer, Serial No. G853267A, located at unit substation TA-53-173 at the southwest corner of Sector M, TA-53-3.

C-53-007: Transformer, Serial No. G853265B, located at unit substation TA-53-175 at the southwest corner of Sector M, TA-53-3.

C-53-008: Transformer, Serial No. PCV7106-01, located at unit substation TA-53-67 at the southwest corner of Sector M, TA-53-3.

C-53-009: Transformer, Serial No. G85263A, located at unit substation TA-53-176 at the northwest corner of Sector M, TA-53-3.

C-53-010: Transformer, Serial No. PCV7107-01, located at unit substation TA-53-191 at the northwest corner of Sector M, TA-53-3.

C-53-011: Transformer, Serial No. G8532630, located at unit substation TA-53-177 at the northwest corner of Sector M, TA-53-3.

C-53-012: Transformer, Serial No. G853267C, located at unit substation TA-53-178 at the southwest corner of Sector M, TA-53-3.

C-53-013: Transformer, Serial No. G853264B, located at unit substation TA-53-179 at the northwest corner of Sector M, TA-53-3.

C-53-014: Transformer, Serial No. G853265A, located at unit substation TA-53-180 at northwest corner of Sector M, TA-53-3.

C-53-015: Transformer, Serial No. PFH3797, located at unit substation TA-53-182 south of beam switchyard at TA-53-3.

C-53-016: Transformer located at unit substation TA-53-50 northwest of Equipment Test Laboratory, TA-53-2.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.3.18 PRS C-53-017—One-Time Spill (OU 1100)

PRS C-53-017 is the release of approximately 3 gal. of PCB oil from capacitor at 115kV substation TA-53-70 on June 12, 1987.

NFA is proposed for this PRS because the cleanup is regulated under another program: the EPA, under TSCA, regulates the operation and maintenance of electrical equipment containing PCBs.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.3.19 PRS C-53-018—One-Time Spill (OU 1100)

PRS C-53-018 is the spill of 2 to 4 ounces of pyranol capacitor oil at Salvage Staging Area at Sector E, TA-53-3. Asphalt was removed.

NFA is proposed for this PRS because the cleanup is regulated under another program: the EPA, under TSCA, regulates the operation and maintenance of electrical equipment containing PCBs.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.3.20 PRS C-53-019—One-Time Spill (OU 1100)

PRS C-53-019 is the release of approximately one-half cup of PCB oil from transformer north of Sector A on March 20, 1990.

NFA is proposed for this PRS because the cleanup is regulated under another program: the EPA, under TSCA, regulates the operation and maintenance of electrical equipment containing PCBs.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.3.21 PRS 55-011(a)—Storm Drain (OU 1129)

The storm drain with structure No. TA-55-79 is located in the northwest side of TA-55-4 and discharges into an outfall in Mortandad Canyon.

This PRS is recommended for NFA under Criterion 3 because the storm water discharge is regulated under the Laboratory's NPDES storm water discharge permit.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.3.22 PRS 55-011(b)—Storm Drain (OU 1129)

The storm drain with structure No. TA-55-82 is located in the northeast side of TA-55-4 and discharges into an outfall in Mortandad Canyon.

This PRS is recommended for NFA under Criterion 3 because storm water discharge is regulated under the Laboratory's NPDES storm water discharge permit.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.3.23 PRS 55-011(c)—Storm Drain (OU 1129)

The storm drain with structure No. TA-55-83 is located in the northeast side of TA-55-4 and discharges into an outfall in Mortandad Canyon.

This PRS is recommended for NFA under Criterion 3 because the storm water discharge is regulated under the Laboratory's NPDES storm water discharge permit.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.3.24 PRS 55-011(d)—Storm Drain (OU 1129)

The storm drain with structure No. TA-55-78 is located in the southwest side of TA-55-4 and discharges into an outfall in Two Mile Canyon.

This PRS is recommended for NFA under Criterion 3 because the storm water discharge is regulated under the Laboratory's NPDES storm water discharge permit.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.3.25 PRS 55-011(e)—Storm Drain (OU 1129)

The storm drain with structure No. TA-55-81 is located in the northeast side of TA-55-4 and discharges into an outfall in Mortandad Canyon.

This PRS is recommended for NFA under Criterion 3 because storm water discharge is regulated under the Laboratory's NPDES storm water discharge permit.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.3.26 PRS 60-001(c)—Storage Area (OU 1114)

SWMU 60-001(c) consists of two satellite accumulation areas that began operations in 1990. They are located inside buildings at the NTS Test Fabrication Facility located on Sigma Mesa approximately one-half mile east of TA-60-2.

PRS 60-001(c) is proposed for NFA because it is regulated under RCRA as a satellite accumulation area.

EPA Review: OU 1114 RFI work plan review letter dated 1/7/94.

2.2.4 NFA Criterion 4. The PRS has been characterized or remediated in accordance with current applicable state or federal regulations, and the available data indicate that contaminants of concern are either not present or are present in concentrations that would pose an acceptable level of risk under the projected future land use. The determination of acceptable risk and future land use has considered stakeholder involvement.

2.2.4.1 PRS 5-006(a)—Former Building Location (OU 1129)

PRS No. 5-006(a) is the site of TA-5-1. The building was used as a trim shack at TA-18 and was moved to TA-5 in 1948 or 1949 to be used as a laboratory. During an Industrial Hygiene Group survey in 1959, the building was found to be free of radioactive and toxic material contamination, but it was found to be contaminated with HE. The site and building were monitored in 1973 and found to be free of detectable radioactive contamination. The building was destroyed by fire sometime between 1973 and 1985. During the LASCP D&D project in 1985, the site was monitored with a Harshaw Model 301 Phoswich, and no radiological contamination was detected. The site was cleaned of surface debris left from the burning, recontoured, and reclaimed. On the basis of archival evidence, this SWMU is recommended for NFA.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.4.2 PRS C-20-001—Storage Building (OU 1100)

This PRS was the former location of a storage building (TA-20-11) and associated, radioactively contaminated soil, which has been removed. It was apparently used for the assembly of test devices that contained radioactive materials. A 1948 Laboratory memo describes the removal of two "hot huts" and one "hot house" from Sandia Canyon. It is suspected that one of these was TA-20-11. The memo states that the structures and all contents were transported to the "contaminated dump" (probably TA-21), after which the ground checked negative for radioactivity.

NFA is recommended for this PRS because contaminants of concern are either not present or are present in concentrations that would pose an acceptable level of risk under the projected land use.

The location of this PRS is not shown on a map in Appendix A in this document.

EPA Review: OU 1100 RFI work plan review letter dated 12/28/94.

2.2.4.3 PRS 21-004(d)—Drain Line (OU 1106)

SWMU 21-004(d) is a drain line and outfall drainage area that discharged overflow from sump TA-21-223 into DP Canyon prior to 1964 and until 1979 when overflow collection tanks were installed. The drain line was 61-ft long with a 6-in diameter. Sometime during this 15 year period, 14-ft of pipe was added to the end of the drain line, but any overflow from the sump continued to flow into DP Canyon. During this time the sump was not equipped with an overflow alarm and no discharges were documented. The TA-21 RFI Work Plan approved by EPA in January 1992 contains a characterization plan for this site.

SWMU 21-004(d) was investigated in 1992 according to the sampling and analysis plans presented in the TA-21 RFI Work Plan, Chapters 14.3 and 15.8. Results of the investigations were reported to EPA in the RFI Phase Report IC in February 1994. Based on the results of the investigation no contaminants of concern were identified and a recommendation of no further action was proposed.

EPA Review: OU 1106 NOD dated 3/6/95.

2.2.4.4 PRS 21-008—Incinerator (OU 1106)

SWMU 21-008 consists of a scrap incinerator in building TA-21-2 and a rag incinerator located in building TA-21-3. Exhaust from these incinerators was part of the group of stack emission sources for airborne releases from TA-21 operations. There were no data specific to any releases from these units. Assessment of these units is part of the site-wide assessment of contaminant deposition from TA-21 stack emissions. The site-wide airborne deposition characterization plan was presented in the TA-21 RFI Work Plan approved by EPA in January 1992.

SWMU 21-008 was investigated in 1992 according to the sampling and analysis plans presented in the TA-21 RFI Work Plan, Chapter 13.1. Results of the investigations were reported to EPA in the RFI Phase Report 1B in January 1994. Based on the results of the investigation no contaminants of concern were identified and a recommendation of no further action was proposed.

EPA Review: OU 1106 NOD dated 3/6/95.

2.2.4.5 PRS 21-019(a-m)—Filter Houses/Exhaust Stacks (OU 1106)

SWMUs 21-019(a-m) are several filter houses and exhaust stacks that have been used to treat the radioactive off-gases at TA-21. Exhaust from these units was part of the group of stack emission sources for airborne releases from TA-21 operations. Available data for releases from specific stacks are given in the TA-21 RFI Work Plan. Assessment of these units is part of the site-wide assessment of contaminant deposition from TA-21 stack emissions. The site-wide airborne deposition characterization plan was presented in the TA-21 RFI Work Plan approved by EPA in January 1992.

SWMU 21-019(a-m) was investigated in 1992 according to the sampling and analysis plans presented in the TA-21 RFI Work Plan, Chapter 13.1. Results of the investigations were reported to EPA in the RFI Phase Report 1B in January 1994. Based on the results of the investigation no contaminants of concern were identified and a recommendation of no further action was proposed.

EPA Review: OU 1106 NOD dated 3/6/95.

2.2.4.6 PRS 21-020(a)—Filter House (OU 1106)

SWMU 21-020(a) represents the filter building TA-21-12 which was decommissioned in 1973. Before its decommissioning, building TA-21-12 was the primary source of airborne plutonium contamination at TA-21. Upon the decommissioning of this building, the 8-in concrete floor was removed, and the underlying soil was removed to approximately 30 cm. The area was backfilled with soil, and remains vacant with the exception of DP-402, an open shed.

In addition to the contribution of this facility to the group of stack emission sources for airborne releases form TA-21 operations, the completeness of contaminant removal in the building footprint following decommissioning was unknown. Available data regarding airborne releases are presented in the TA-21 RFI Work Plan. Assessment of the airborne emissions is part of the site-wide assessment of contaminant deposition from TA-21 stack emissions. Investigations within the building footprint were also presented in the work plan, which was approved by EPA in January 1992.

SWMU 21-020(a) was investigated in 1992 according to the sampling and analysis plans presented in the TA-21 RFI Work Plan, Chapter 13.1. Results of the investigations were reported to EPA in the RFI Phase Report 1B in January 1994. Based on the results of the investigation no contaminants of concern were identified and a recommendation of no further action was proposed.

EPA Review: OU 1106 NOD dated 3/6/95.

2.2.4.7 PRS 21-020(b)—Filter House (OU 1106)

SWMU 21-020(b) represents the filter building TA-21-153. Upon decommissioning in 1978, soil under and around this facility was removed until the entire area measured less than 30 pCi gross alpha/g soil.

In addition to the contribution of this facility to the group of stack emission sources for airborne releases from TA-21 operations, the completeness of contaminant removal in the building footprint following decommissioning was unknown. Available data regarding airborne release are presented in the TA-21 RFI Work Plan. Assessment of the airborne emissions is part of the site-wide assessment of contaminant deposition from TA-21 stack emissions. Investigations within the building footprint were also presented in the work plan, which was approved by EPA in January 1992.

SWMU 21-020(b) was investigated in 1992 according to the sampling and analysis plans presented in the TA-21 RFI Work Plan, Chapter 13.1. Results of the investigations were reported to EPA in the RFI Phase Report 1B in January 1994. Based on the results of the investigation no contaminants of concern were identified and a recommendation of no further action was proposed.

EPA Review: OU 1106 NOD dated 3/6/95.

2.2.4.8 PRS 33-010(e)—Surface Disposal (OU 1122)

SWMU 33-010(e) is a surface disposal area located at Area 6, TA-33. During initial environmental reconnaissance in 1987 to identify potential release sites at LANL, investigators noted a debris area "...in the canyon southeast of TA-33-2." No description or more definitive location was provided. During investigations for the RFI Work Plan for OU 1122 in 1990 and 1991, no trace of debris could be found for SWMU 33-010(e). Presumably, the debris was removed in the interval between the two investigations. The deputy group leader of W-3 stated that during the period of operations (1948 to 1955) at Area 6, the group may have used the area south of Area 6 for disposal of firing debris. Consequently, the area was treated in the RFI work plan as a valid SWMU. Inorganics and radionuclides were identified as potential contaminants. As no organic stains were noted in the area, and drum storage was not mentioned in the SWMU Report, organics were not considered potential contaminants (LANL 1990, 0145).

Radiation and geophysical (magnetic and electromagnetic) surveys were performed over the entire area southeast of Area 6. The radiation survey was conducted on a 15-ft grid. Neither survey revealed any anomalies that could be used to bias sampling locations (ICF-Kaiser 1994, 02-095). A 1983 aerial photo, RN83-125054, hinted that an unimproved vehicle track may have served the slope south of the site. As specified in the work plan, three surface samples and field duplicates were taken on the slope of the hillock. In the absence of any other information or field indications, sampling locations were selected at random over the area of the slope. In addition, two grid samples from SWMU 33-017 are located on this slope, and seven drainage samples collected for SWMU 33-004(d) are downslope .

All samples were analyzed for inorganics, gamma emitters, and uranium. Several samples were analyzed for herbicides. All drainage samples and grid samples were also analyzed for SVOCs.

Except for the low level SVOCs in sample AAA2140 that were discussed in Subsection 4.1.4 of the January 1995 OU 1122 RFI Report as possibly related to a nearby treated telephone pole, no organic contaminants were found above detection limit in any sample. Uranium was above the LANL (99%, 0.95) UTL in many samples, but was below the local TA-33 (99%, 0.95) UTL in most of these samples. Nickel was slightly above background in one sample. Cesium-137 was slightly above background in one sample. No other inorganics or radionuclides were above background.

Although slope samples were located randomly due to lack of any indication of a disposal area, drainage sampling for SWMU 33-004(d) would detect movement of contaminants, if any were present. Comparisons to SALs and background indicate that contamination was not detected. Uranium values above LANL background are at low levels, mostly within ranges observed on the TA-33 grid and in local field blanks. Nickel was slightly above (99%, 0.95) UTLs for background in one sample, but was well below SALs. Low-level SVOCs in one drainage sample did not exceed SALs. Because no significant indications of a disposal area or contaminants of concern were detected, NFA is proposed at SWMU 33-010(e) based on LANL Criterion 4.

EPA Review: OU 1122 RFI Report NOD dated 4/24/95.

2.2.4.9 PRS C-35-004—Operational Release (OU 1129)

PRS No. C-35-004 is the site of a 1000-gal. Shell Dela Oil spill south of TA-35-125 that discharged into Ten Site Canyon through the storm sewer in 1986. The spill reached the canyon and extended 30 ft downstream. Analyses of the oil indicated that the polychlorinated biphenyl (PCB) content was below the detection limit of 0.01mg/L. The spill was cleaned up using absorbent materials. This PRS is recommended for NFA because this was a one-time spill event, COCs were not found, and efforts have been made to clean up the spill.

EPA Review: OU 1129 NOD dated 1/23/95.

2.2.4.10 PRS 57-001(a)—Drilling Mud Pits (OU 1154)

Potential Release Site 57-001 (a), drilling mud pits at Fenton Hill, was used to store drilling fluids to supply the pumps used for the drilling operations. Barites were the predominant weighting material and thus the muds had high concentrations of barium. Also, the predominant lubricating materials were detergents, such as "Coat 415," which were present in the mud in high concentrations.

Many of the muds and mud additives were found to contain no hazardous constituents or found to have been used in minimal quantities. Some contained acids or bases that would have been neutralized during use or during subsequent exposure to natural environmental conditions. Although barium was used extensively, it was in the form of barium sulfate, which is not soluble in water and would have remained in the mud that was later removed to the sludge pit (PRS 57-002). Water-soluble constituents would also have largely been retained in the clay structure of the bentonite and would have also been removed to the sludge pit. No hazardous constituents were identified that would have remained at the site in significant quantities after cleanup. None of the drilling mud pits remain. They have been cleaned to meet New Mexico Division of Oil and Gas closure standards and have been filled with clean soil (Burns 1993, 24-0070; Burns 1993, 24-0078). Any hazardous constituents would have remained with the mud, and the cleaned pits pose no threat to human health or the environment.

EPA Review: OU 1154 RFI work plan review letter dated 5/30/95.

2.2.4.11 PRS 61-004(c)—Septic Tank (OU 1114)

SWMU 61-004(c) was an abandoned septic tank. In February 1991, a discarded septic tank including the lines, lift station, and old foundation was uncovered at the Los Alamos municipal landfill, TA-61. At that time, buried structures were excavated to ascertain the nature and extent of contamination, if any (Nunes 1991, 17-293).

EM-8 collected liquid samples from the tank. Analytical results indicated the presence of one SVOC at trace levels: benzoic acid at less than 16 parts per billion (ppb). Target VOCs and RCRA TCLP metals were all below action levels found in 40 CFR 261.24. Gross alpha and gamma activity were below maximum contaminant levels for drinking water. Although levels of beta activity were elevated (six times above the screening level guideline of 5 pCi/L) for drinking water, the effluent was well below the DOE-derived concentration guidelines of 1 000 pCi/L for uncontrolled areas. Strontium-90 was detected in trace amounts (Nunes 1991, 17-293).

The liquid in the lift station and tank was removed and the tank was excavated while being monitored for radioactivity. Soil samples were collected from the tank, excavation, and surrounding area for analysis of the same suite of compounds listed above. Analytical results revealed no radioactive, organic, or metal contamination. The tank, lines, lift station, and old foundation were disposed of in the municipal landfill.

PRS 61-004(c) is proposed for NFA because it was characterized and remediated in accordance with current applicable state or federal regulations, and the available data indicate that contaminants of concern are either not present or are present in concentrations that would pose an acceptable level of risk under the projected future land use.

EPA Review: OU 1114 RFI work plan review letter dated 1/7/94.

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LANL (Los Alamos National Laboratory), May 1991. "TA-21 Operable Unit RFI Work Plan for Environmental Restoration," Volumes I-III, Los Alamos National Laboratory Report LA-UR-91-962, Los Alamos, New Mexico. (LANL 1991, 0689)

LANL (Los Alamos National Laboratory), May 1992. "RFI Work Plan for Operable Unit 1122," Los Alamos National Laboratory Report LA-UR-92-925, Los Alamos, New Mexico. (LANL 1992, 0784)

LANL (Los Alamos National Laboratory), May 1992. "RFI Work Plan for Operable Unit 1129," Los Alamos National Laboratory Report LA-UR-92-800, Los Alamos, New Mexico. (LANL 1992, 0785)

LANL (Los Alamos National Laboratory), July 1993. "RFI Work Plan for Operable Unit 1082," Los Alamos National Laboratory Report LA-UR-93-1196, Los Alamos, New Mexico. (LANL 1993, 1094)

LANL (Los Alamos National Laboratory), July 1993. "RFI Work Plan for Operable Unit 1086," Los Alamos National Laboratory Report LA-UR-92-3968, Los Alamos, New Mexico. (LANL 1993, 1087)

LANL (Los Alamos National Laboratory), July 1993. "RFI Work Plan for Operable Unit 1114," Los Alamos National Laboratory Report LA-UR-93-1000, Los Alamos, New Mexico. (LANL 1993, 1090)

LANL (Los Alamos National Laboratory), August 1993. "RFI Work Plan for Operable Unit 1111," Los Alamos National Laboratory Report LA-UR-93-2166, Los Alamos, New Mexico. (LANL 1993, 1091)

LANL (Los Alamos National Laboratory), January 28, 1994. "Phase Report 1B, TA-21 Operable Unit RCRA Facility Investigation, Operable-Unit-Wide Surface Soil, Deposition Layer and Filler Building Investigation," Los Alamos National Laboratory Report LA-UR-93-4390, Los Alamos, New Mexico. (LANL 1994, 1259)

LANL (Los Alamos National Laboratory), February 28, 1994. "Phase Report 1C, TA-21 Operable Unit RCRA Facility Investigation, Outfalls Investigation," Los Alamos National Laboratory Report LA-UR-94-228, Los Alamos, New Mexico. (LANL 1994, 1260)

LANL (Los Alamos National Laboratory), May 1994. "RFI Work Plan for Operable Unit 1082," Adddendum 1, Los Alamos National Laboratory Report LA-UR-94-1580, Los Alamos, New Mexico. (LANL 1994, 1158)

LANL (Los Alamos National Laboratory), May 1994. "RFI Work Plan for Operable Unit 1085," Los Alamos National Laboratory Report LA-UR-94-1033, Los Alamos, New Mexico. (LANL 1994, 1156)

LANL (Los Alamos National Laboratory), May 1994. "RFI Work Plan for Operable Unit 1100," Los Alamos National Laboratory Report LA-UR-94-1097, Los Alamos, New Mexico. (LANL 1994, 1157)

LANL (Los Alamos National Laboratory), January 1995. "Phase Report Addendum 1B and 1C Operable Unit 1106 RCRA Facility Investigation," Los Alamos National Laboratory Report LA-UR-94-4360, Los Alamos, New Mexico. (LANL 1995, 1261)

APPENDIX A

Maps

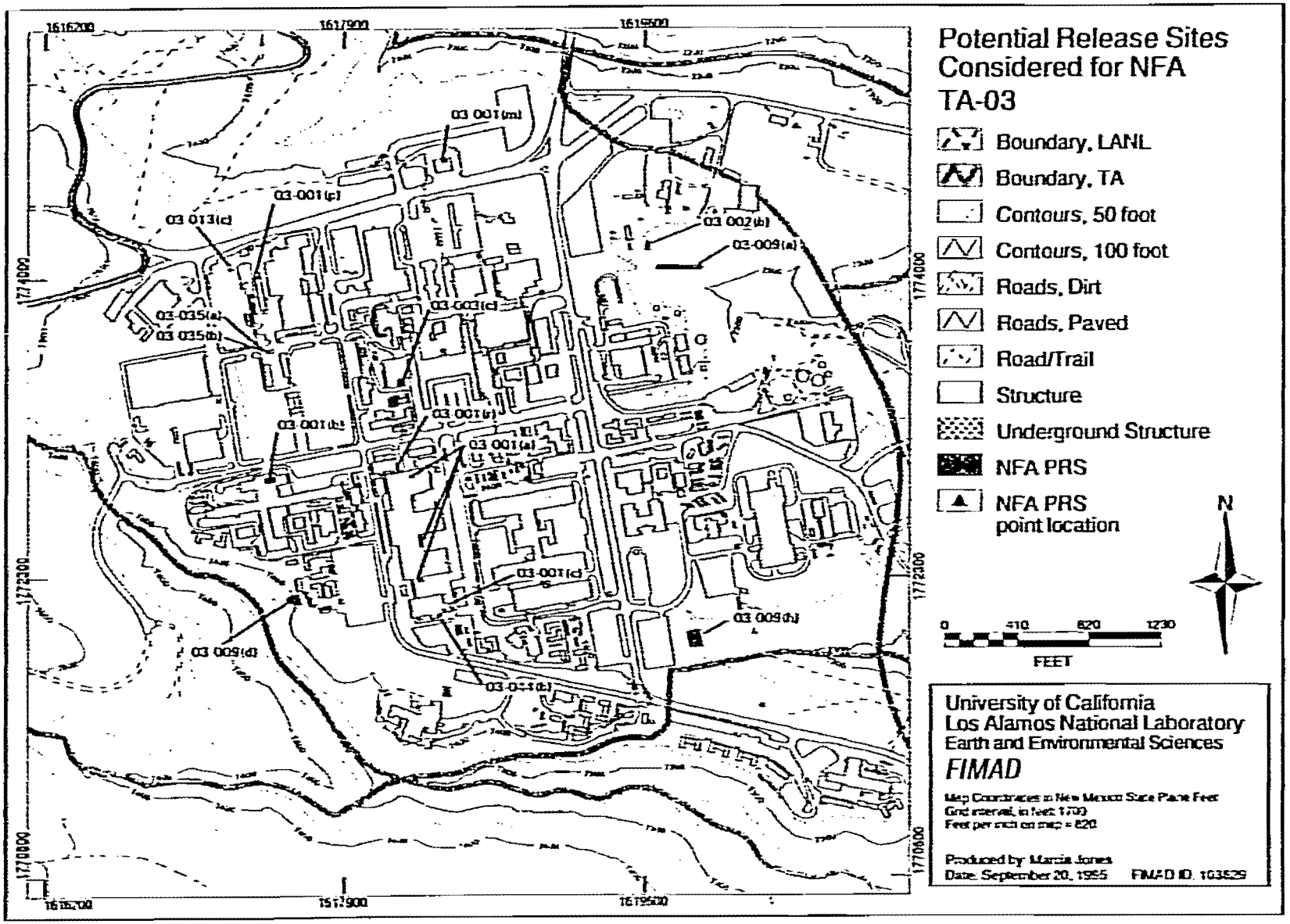

Figure A-1. Potential release sites considered for NFA, TA-03.

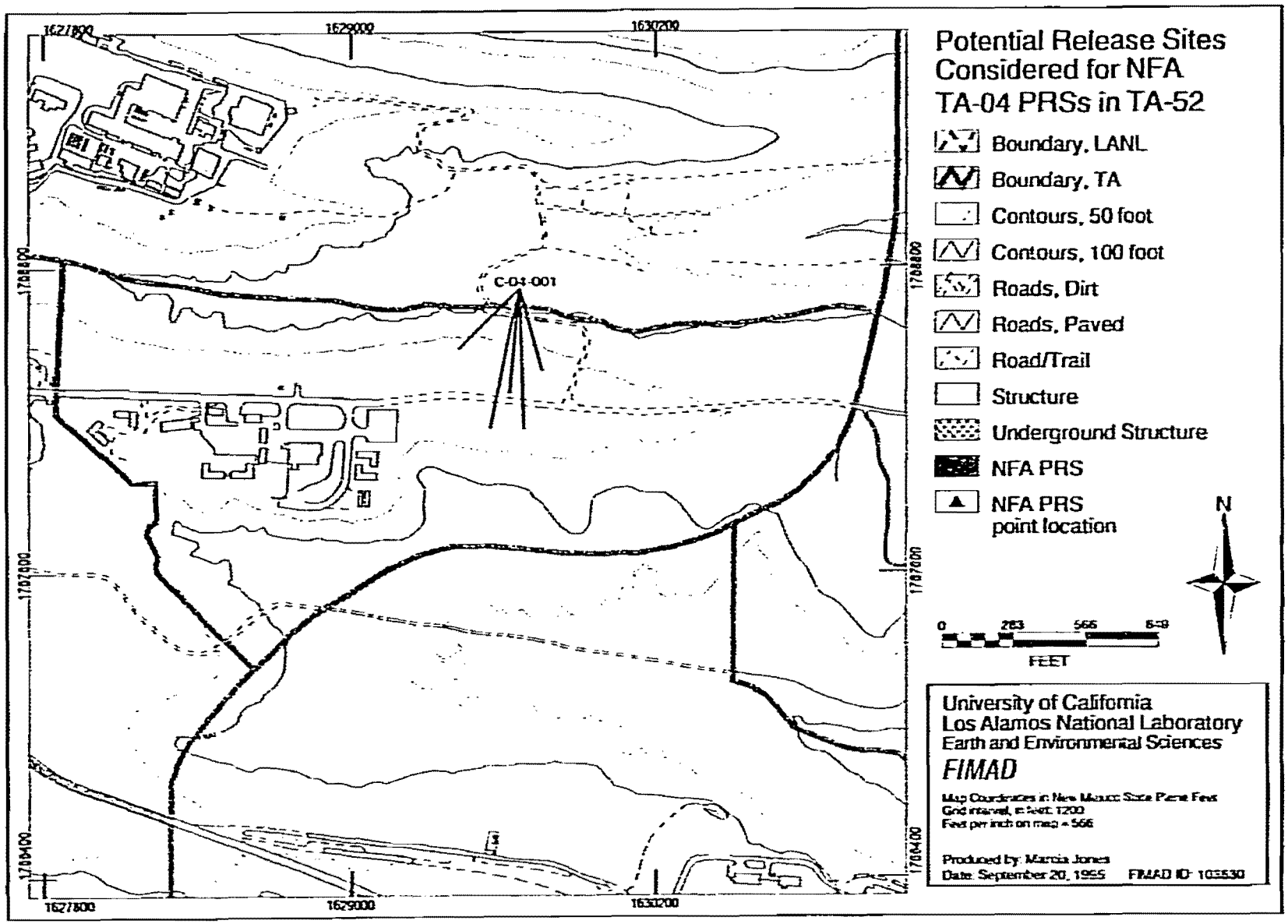

Figure A-2. Potential release sites considered for NFA, TA-04 PRSs in TA-52.

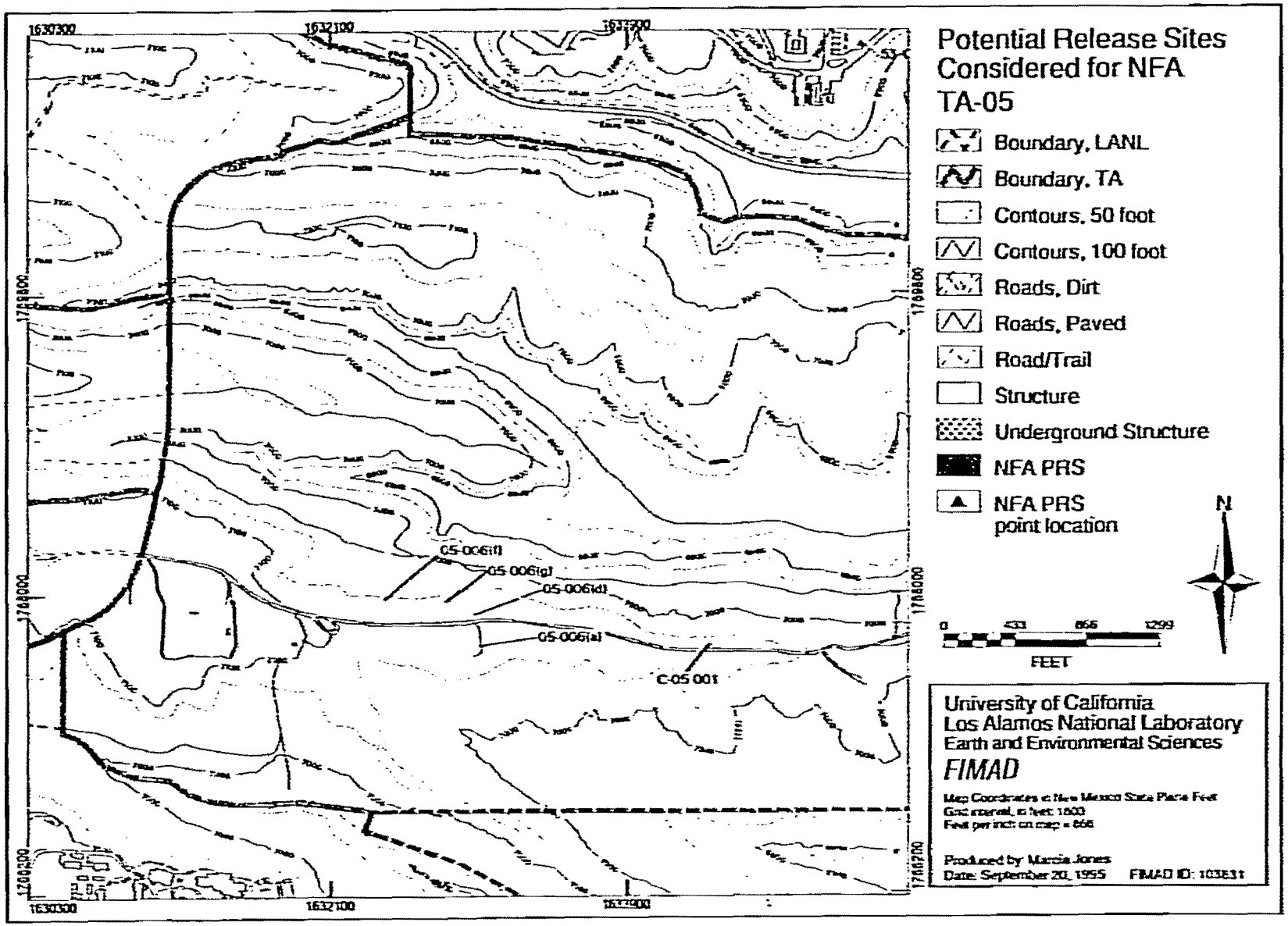

Figure A-3. Potential release sites considered for NFA, TA-05.

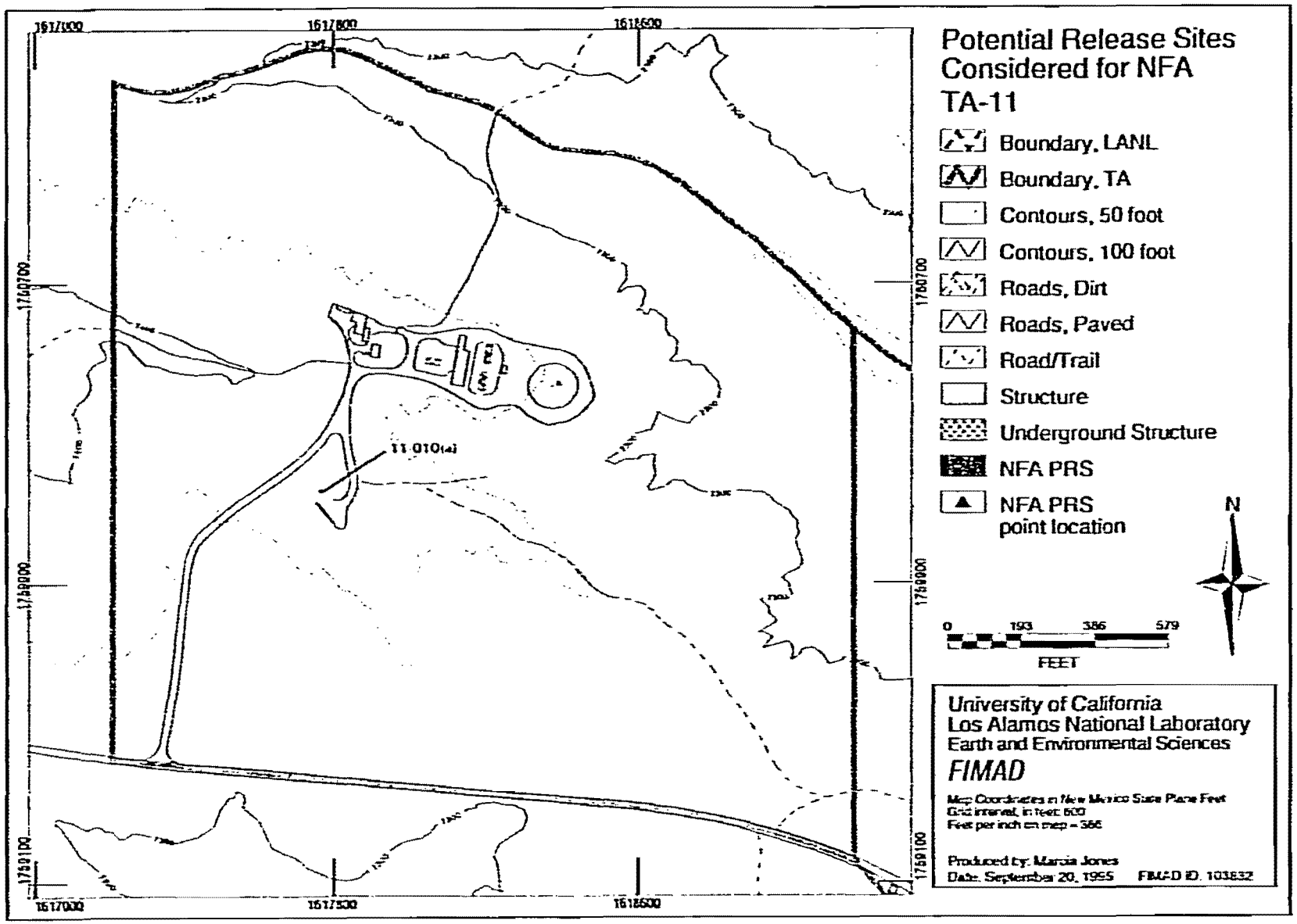

Figure A-4. Potential release sites considered for NFA, TA-11.

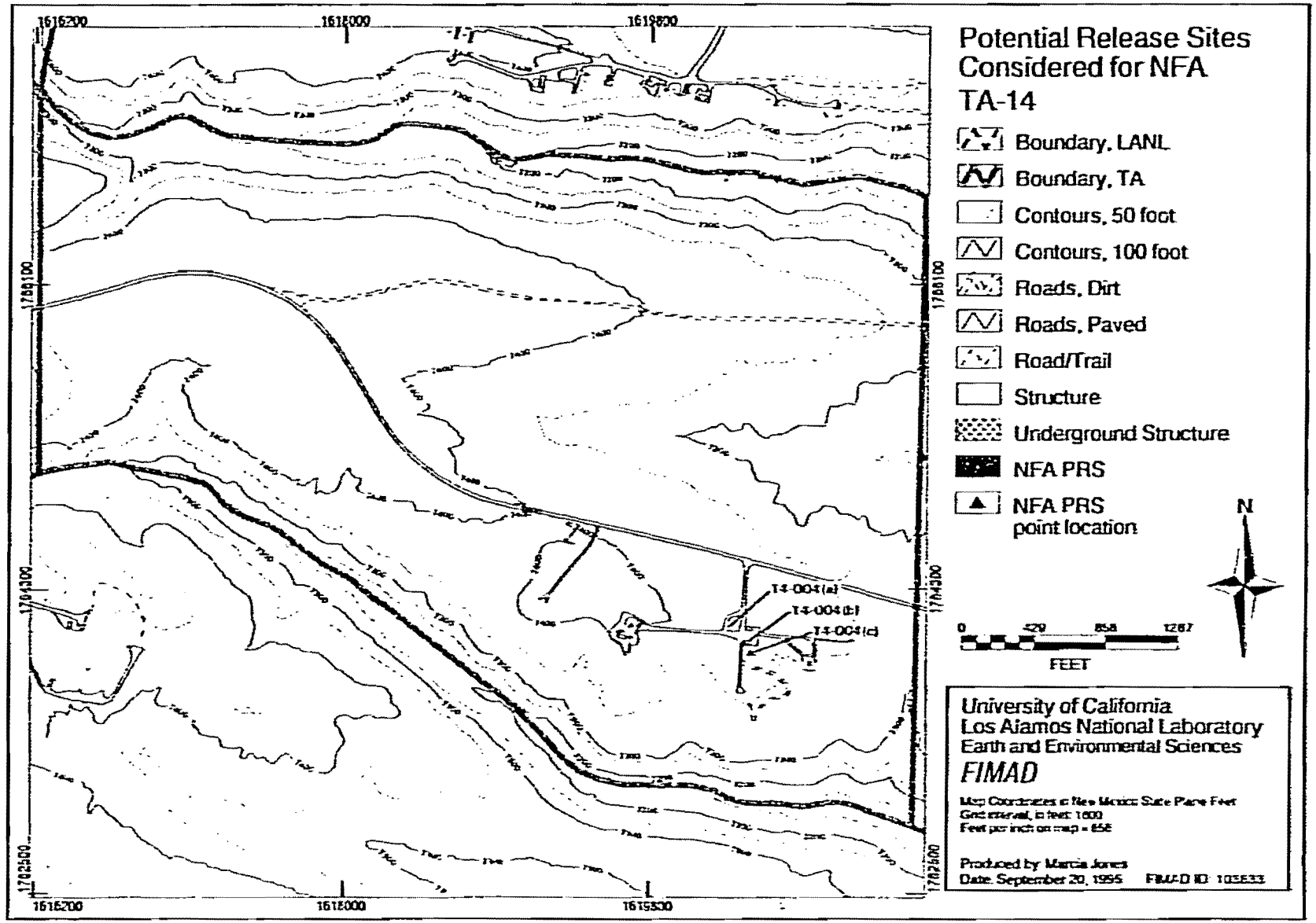

Figure A-5. Potential release sites considered for NFA, TA-14.

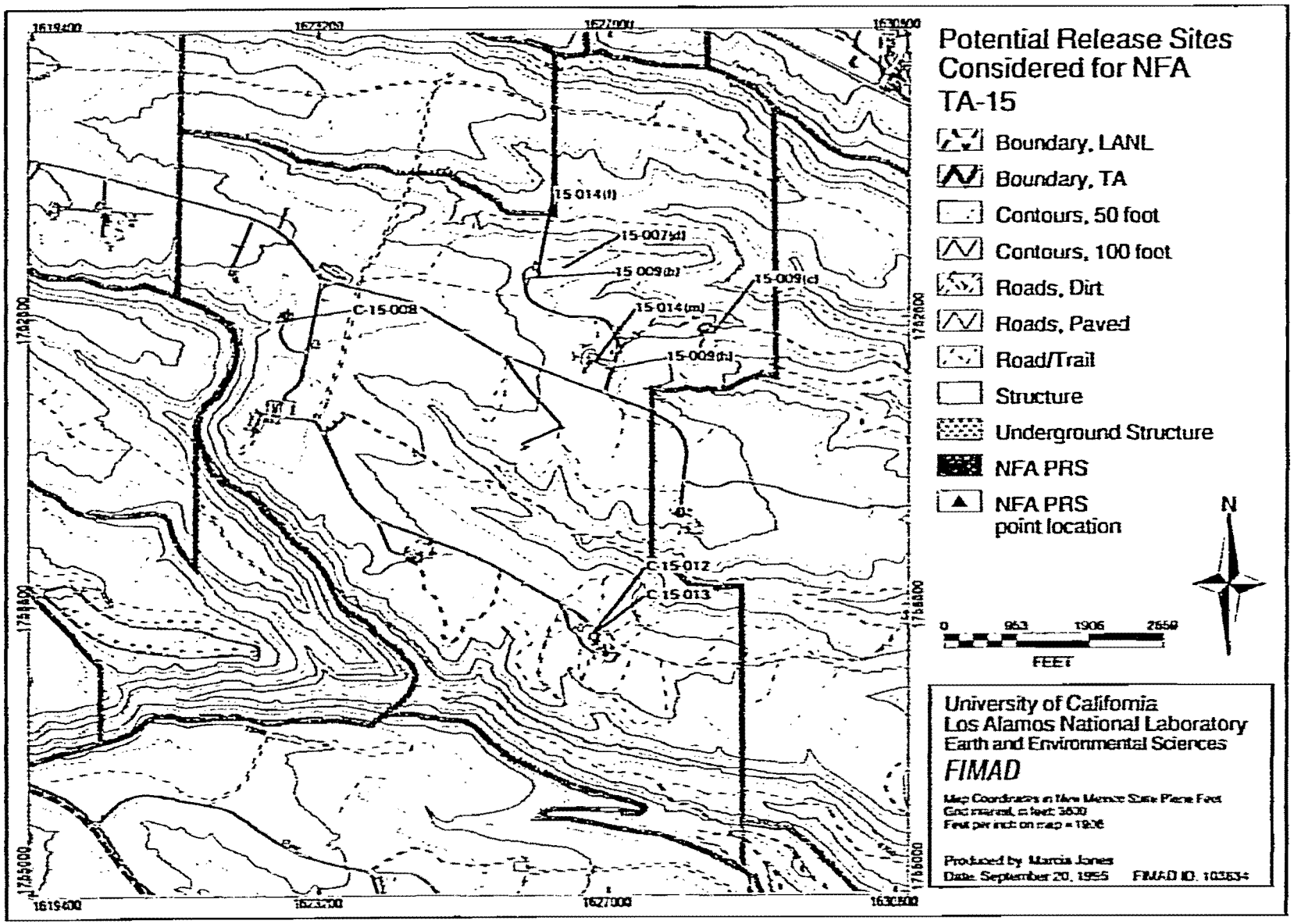

Figure A-6. Potential release sites considered for NFA, TA-15.

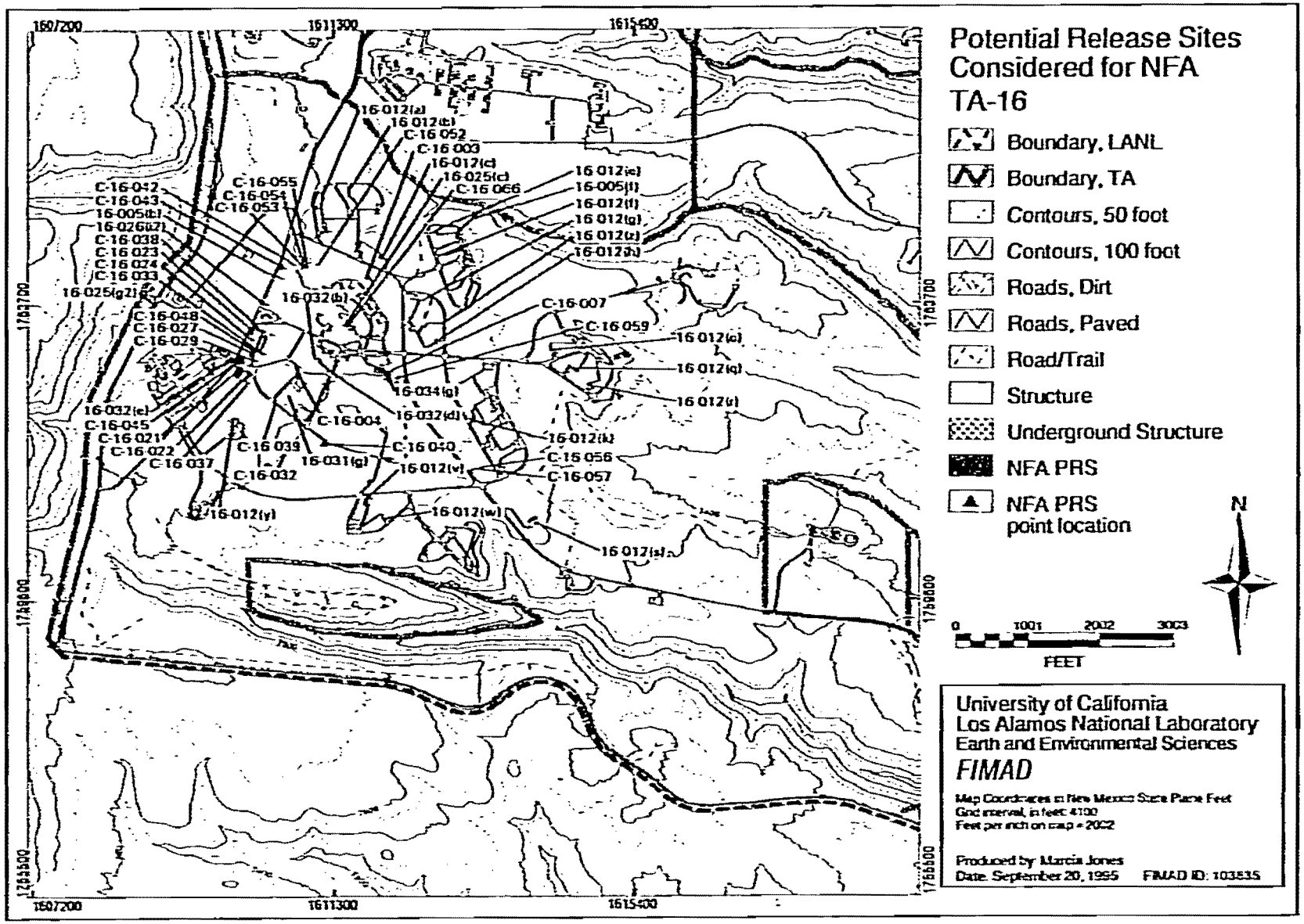

Figure A-7. Potential release sites considered for NFA, TA-16.

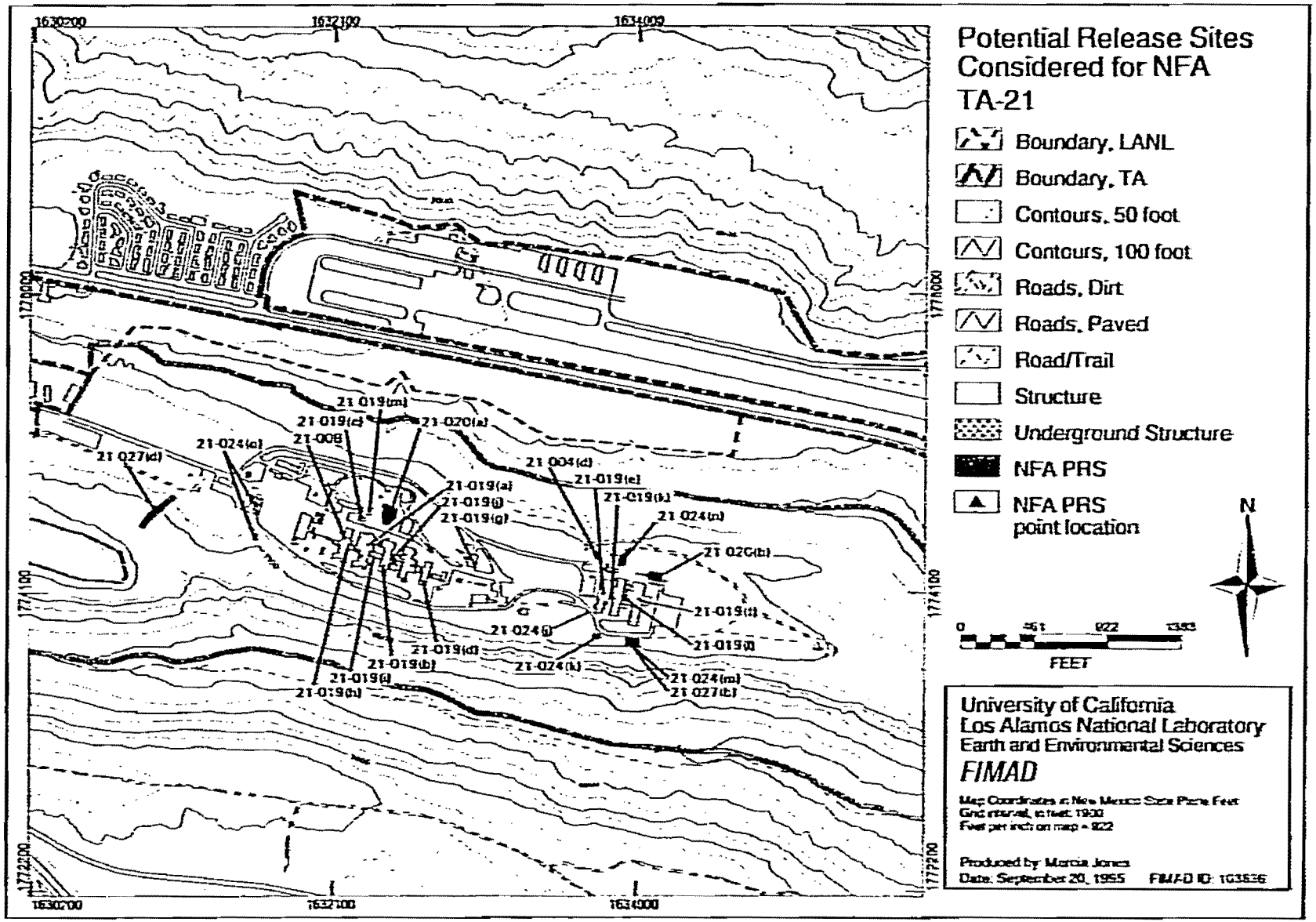

Figure A-8. Potential release sites considered for NFA, TA-21.

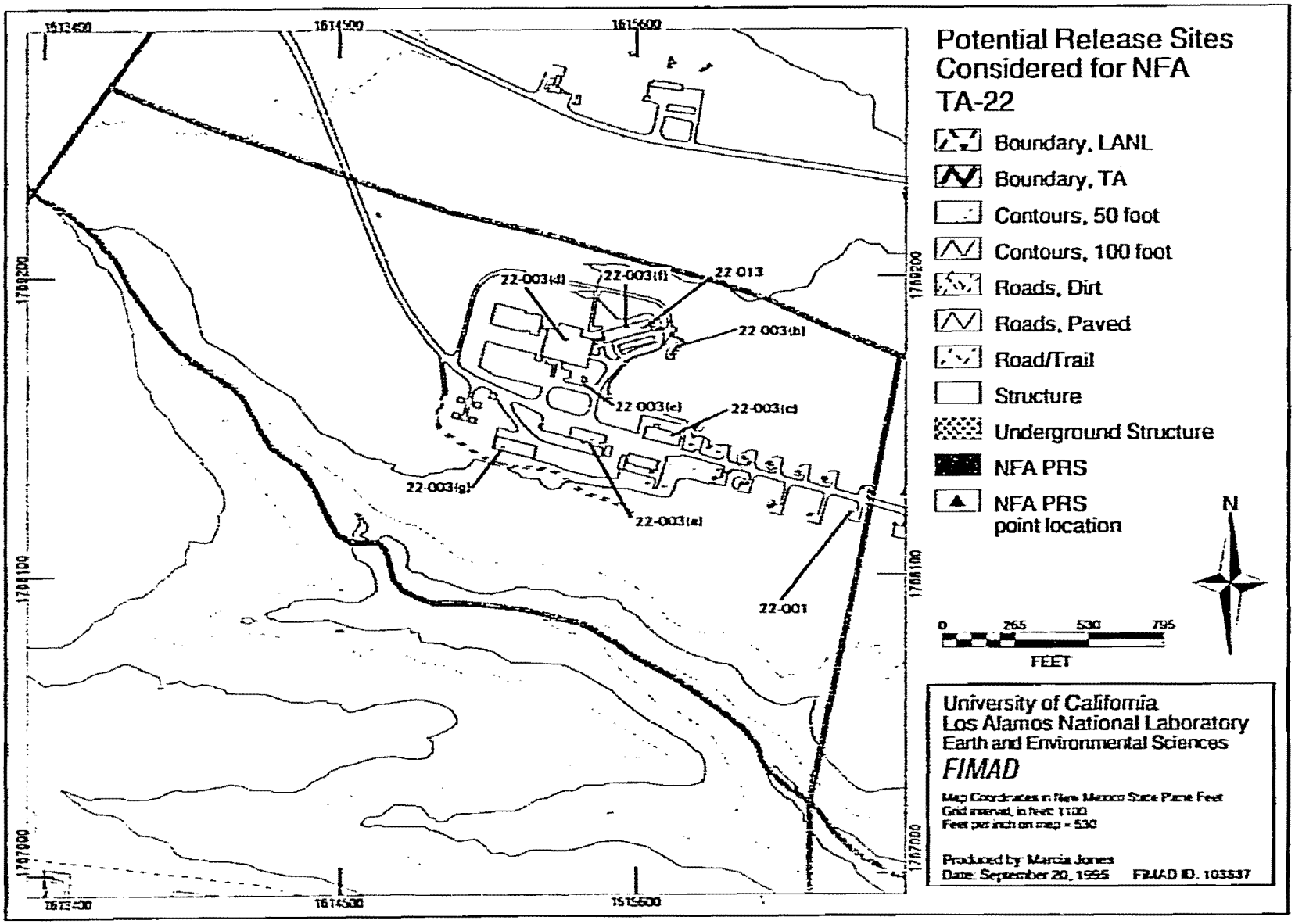

Figure A-9 Potential release sites considered for NFA, TA-22.

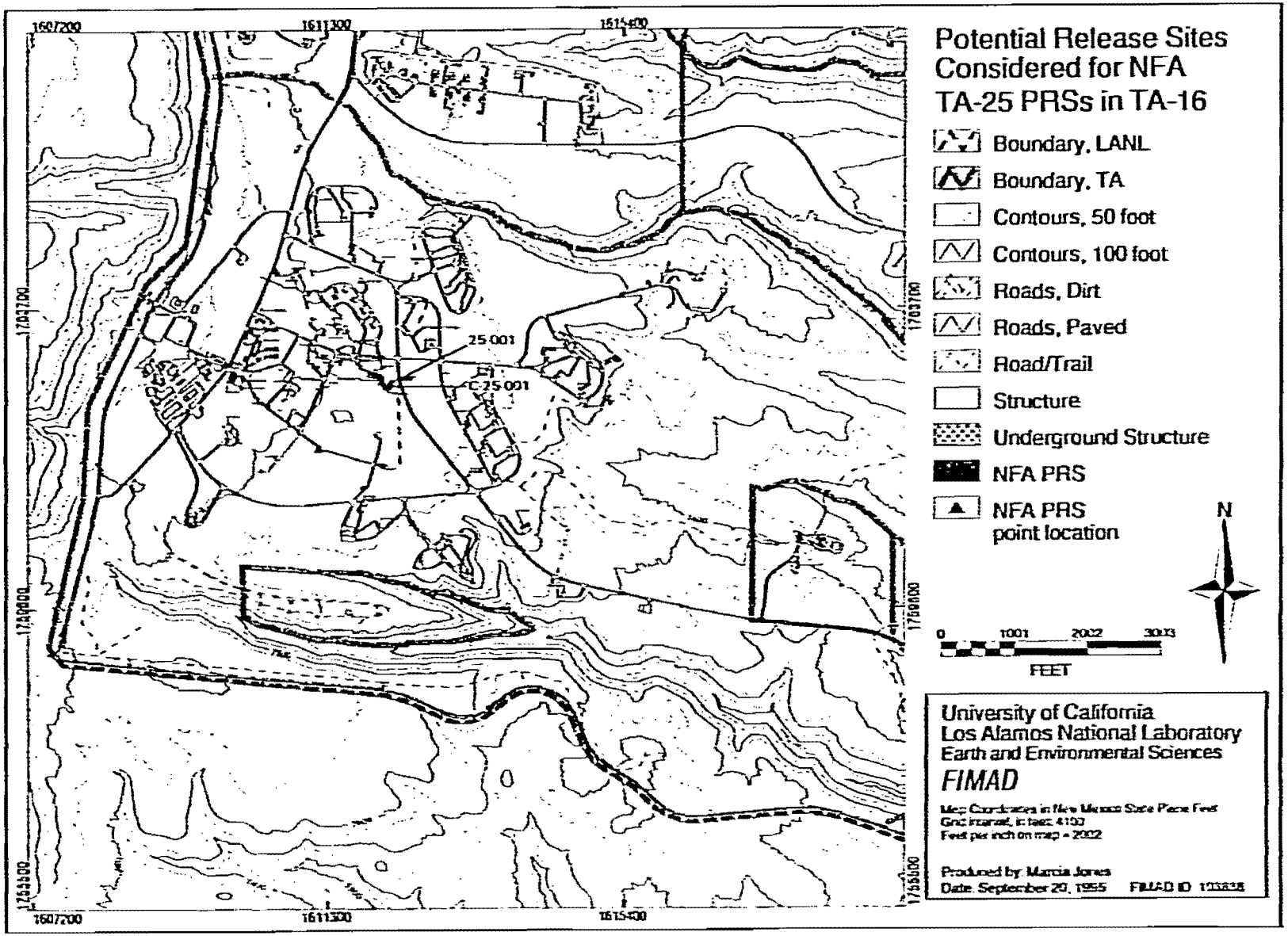

Figure A-10. Potential release sites considered for NFA, TA-25 PRSs in TA-16.

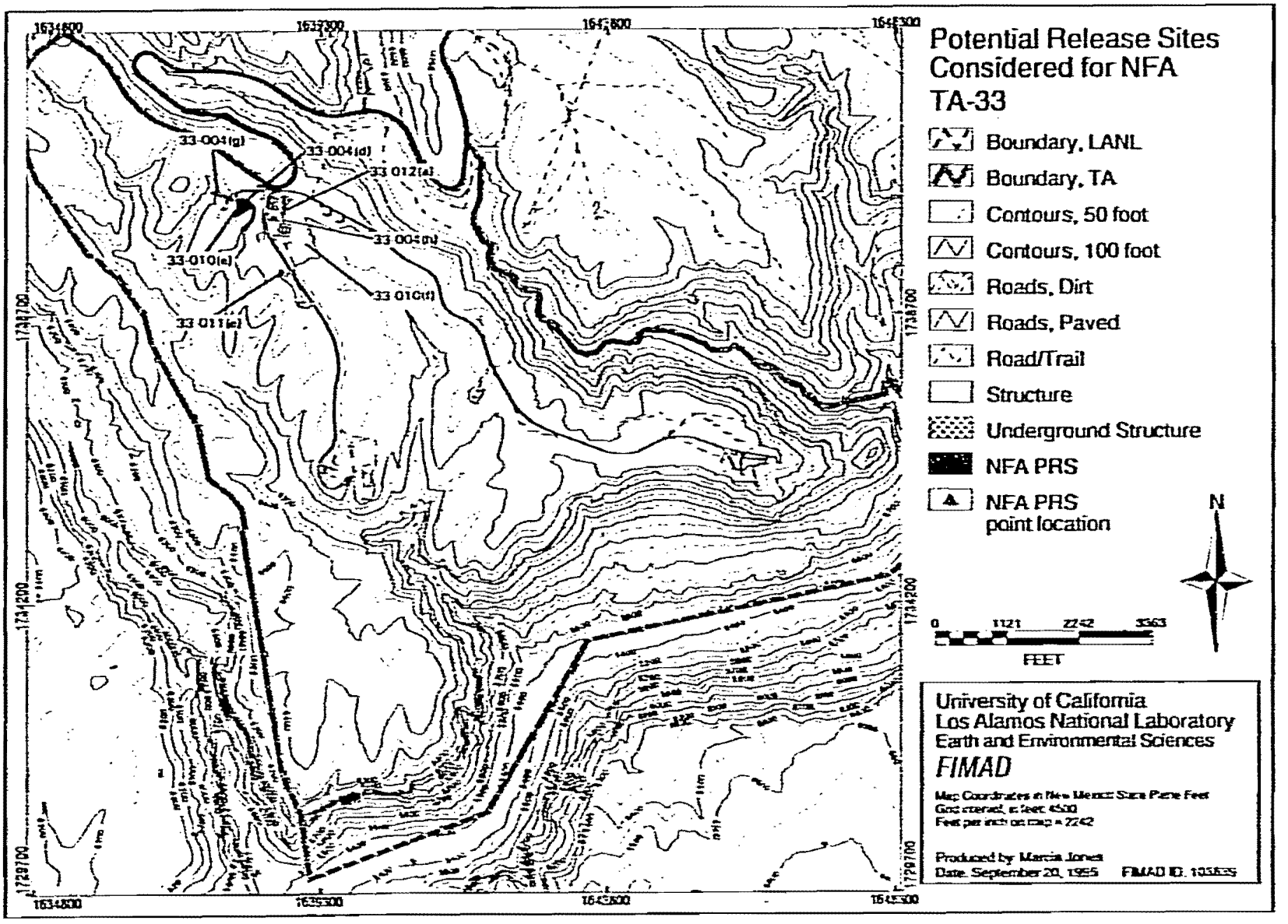

Figure A-11. Potential release sites considered for NFA, TA-33.

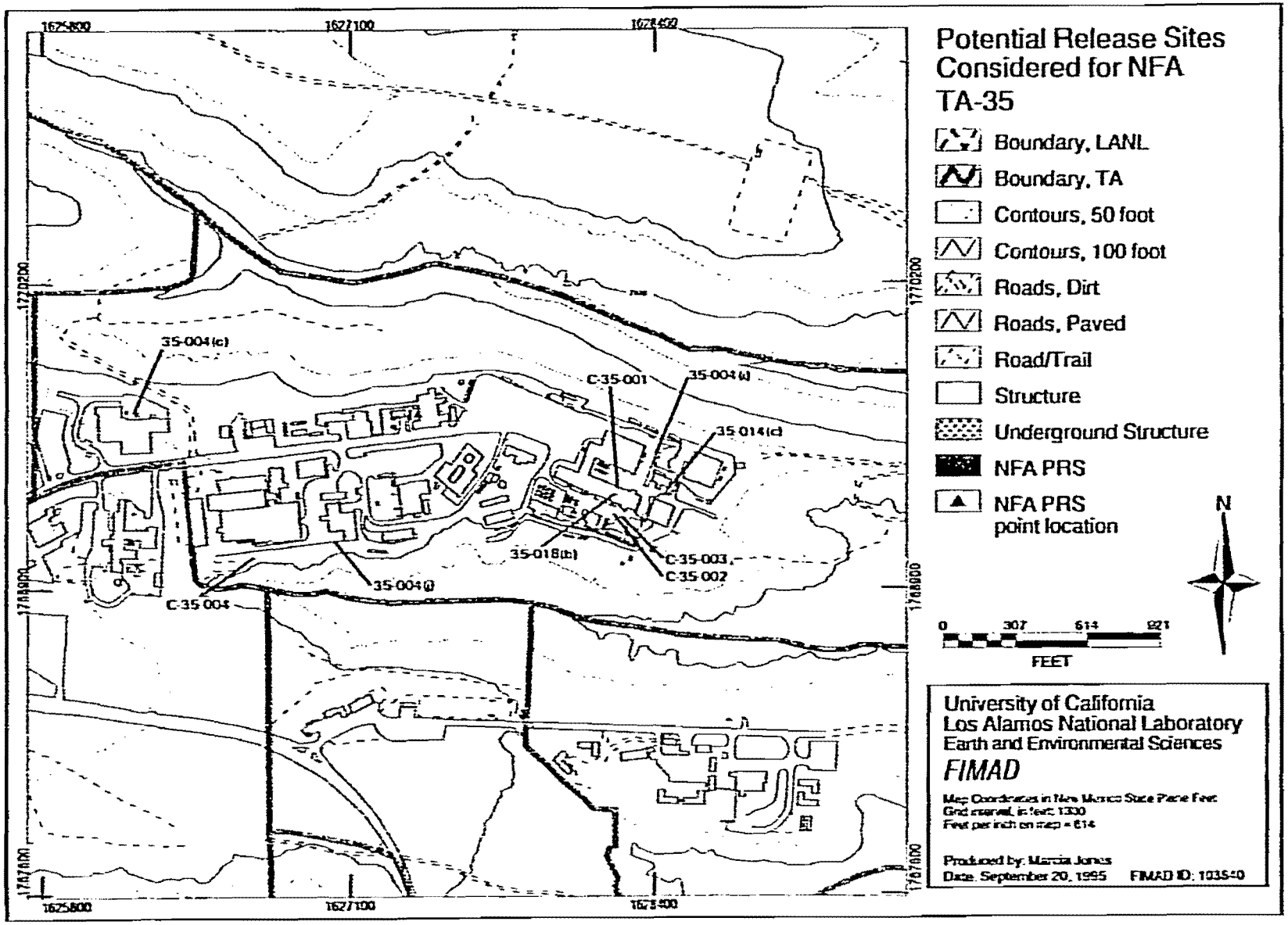

Figure A-12. Potential release sites considered for NFA, TA-35.

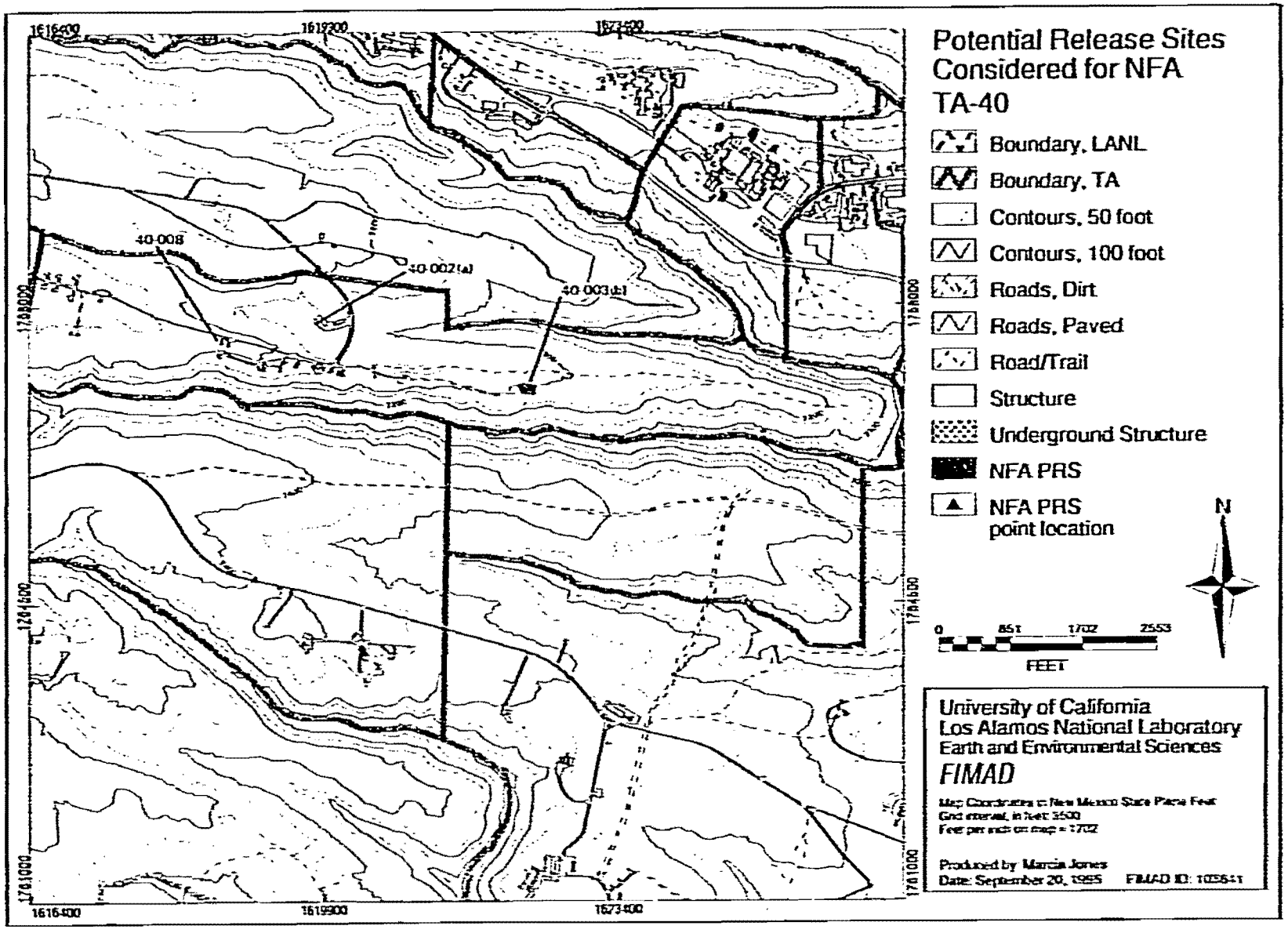

Figure A-13. Potential release sites considered for NFA, TA-40.

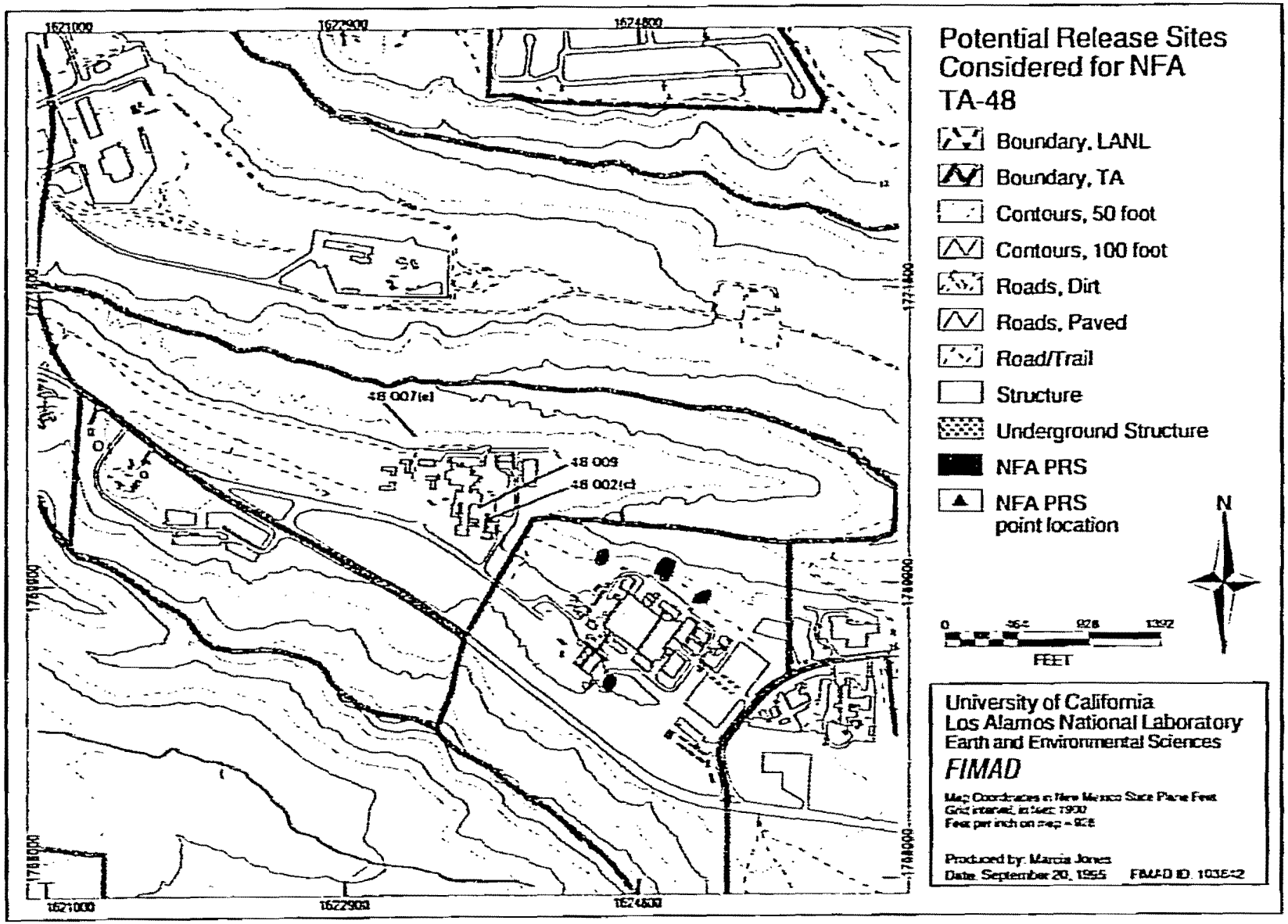

Figure A-14. Potential release sites considered for NFA, TA-48.

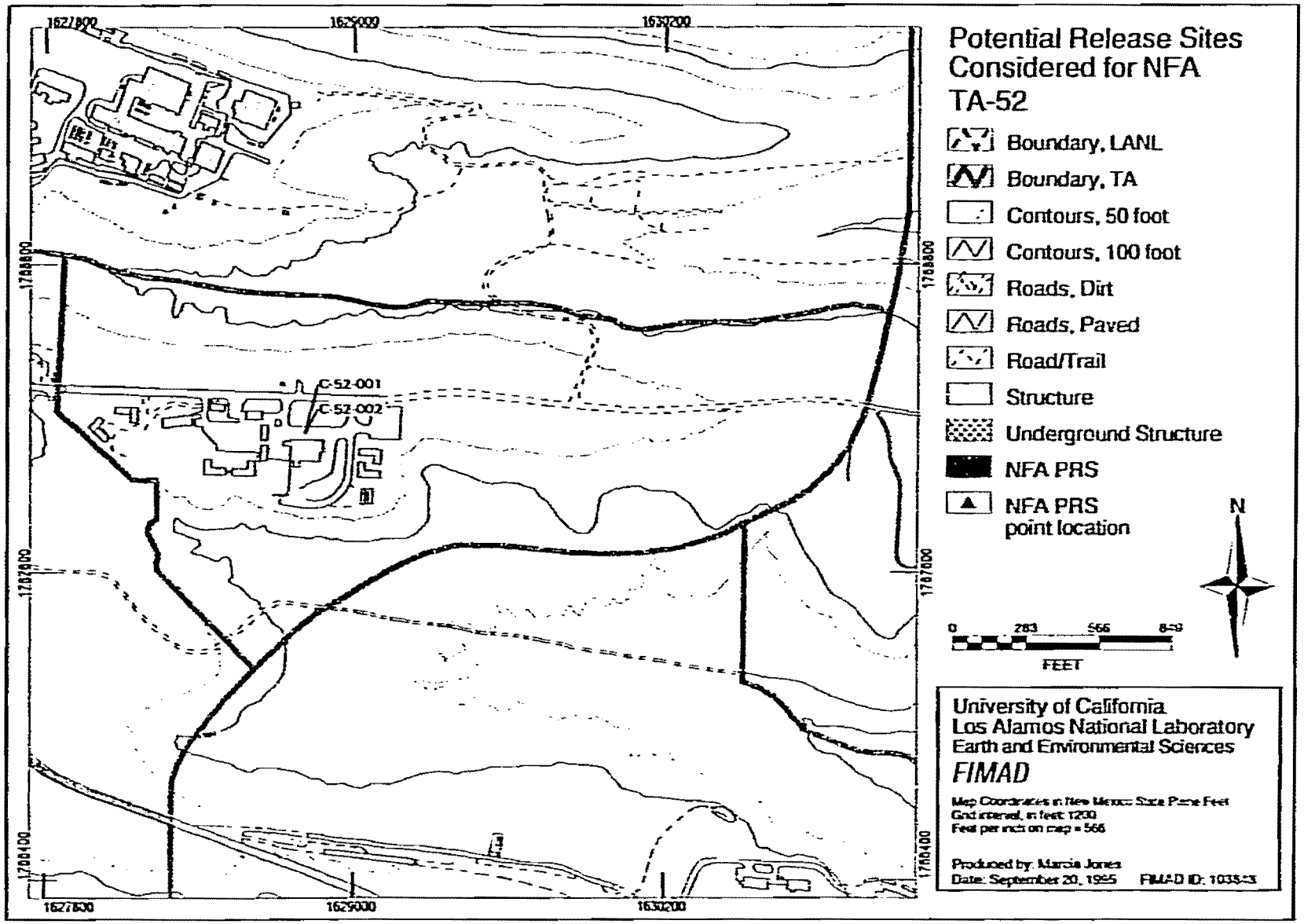

Figure A-15. Potential release sites considered for NFA, TA-52.

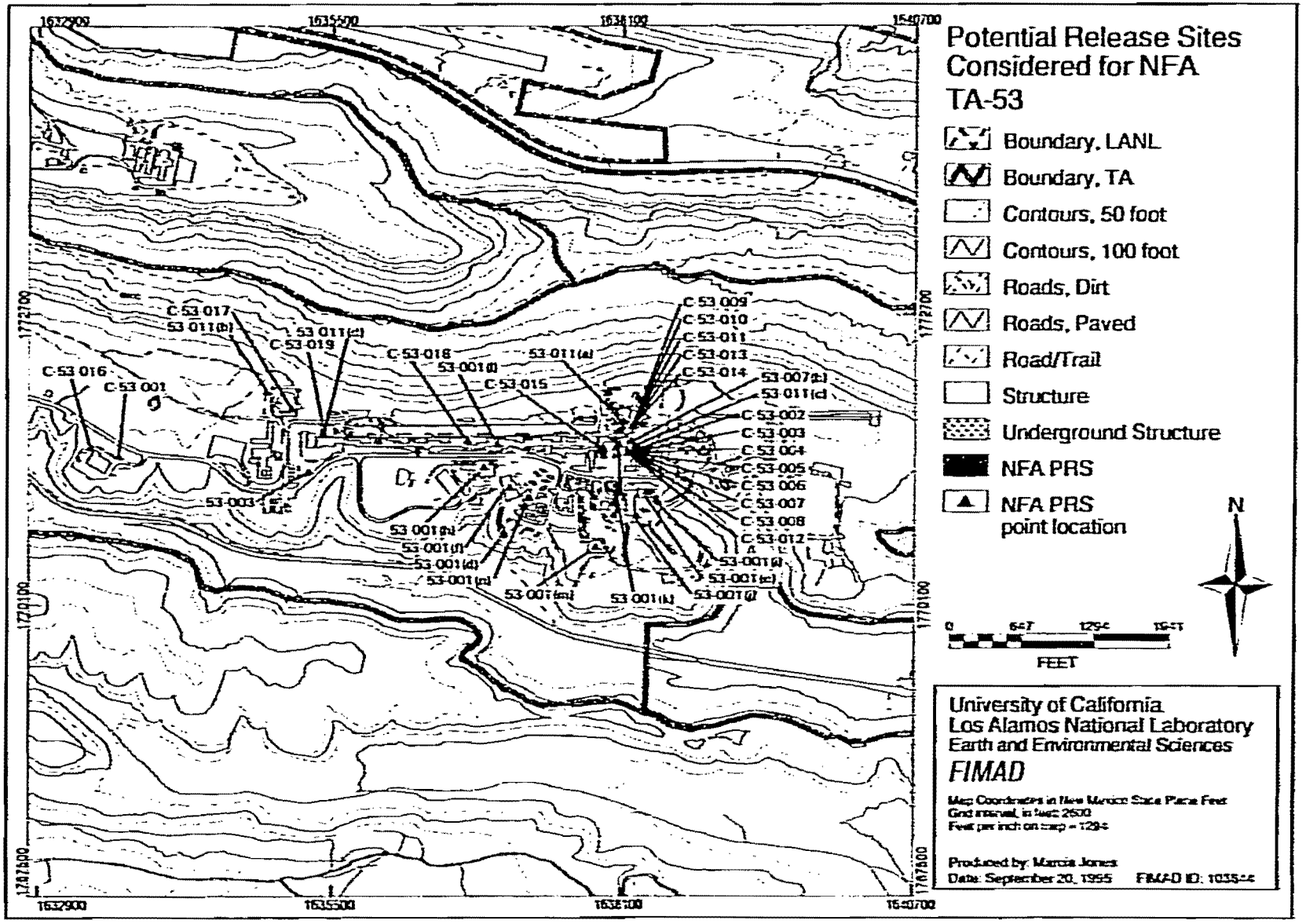

Figure A-16. Potential release sites considered for NFA, TA-53.

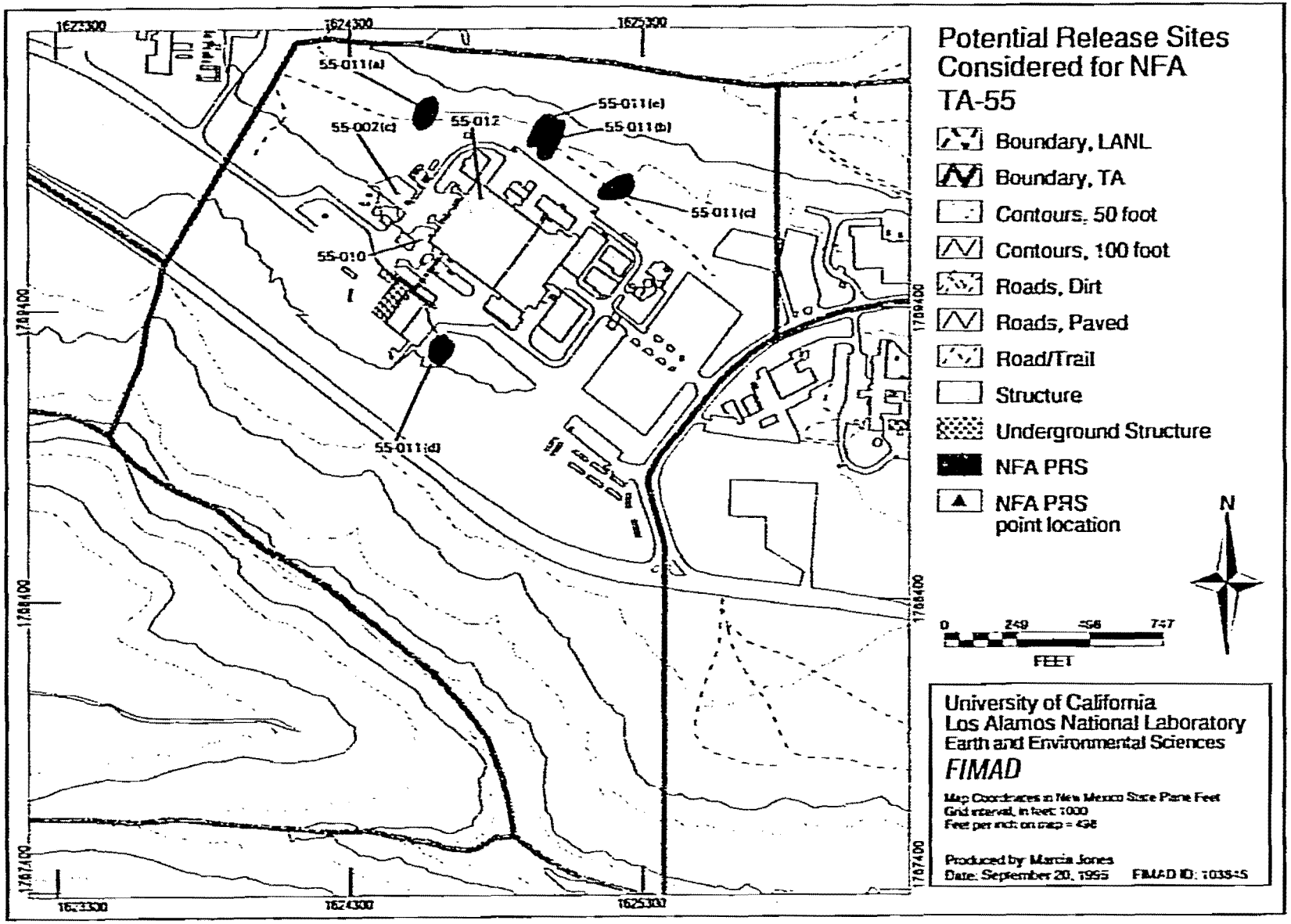

Figure A-17. Potential release sites considered for NFA, TA-55.

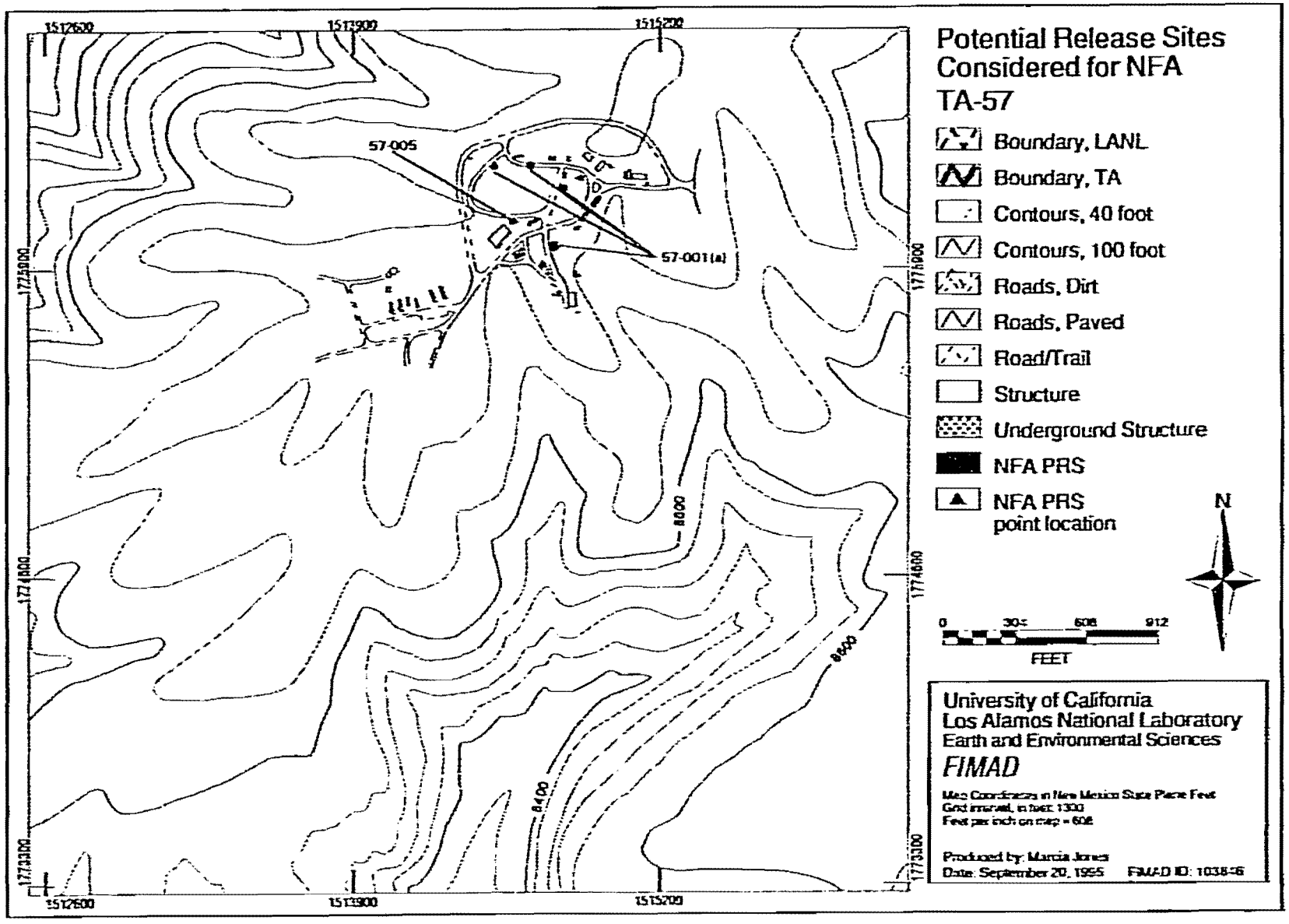

Figure A-18. Potential release sites considered for NFA, TA-57.

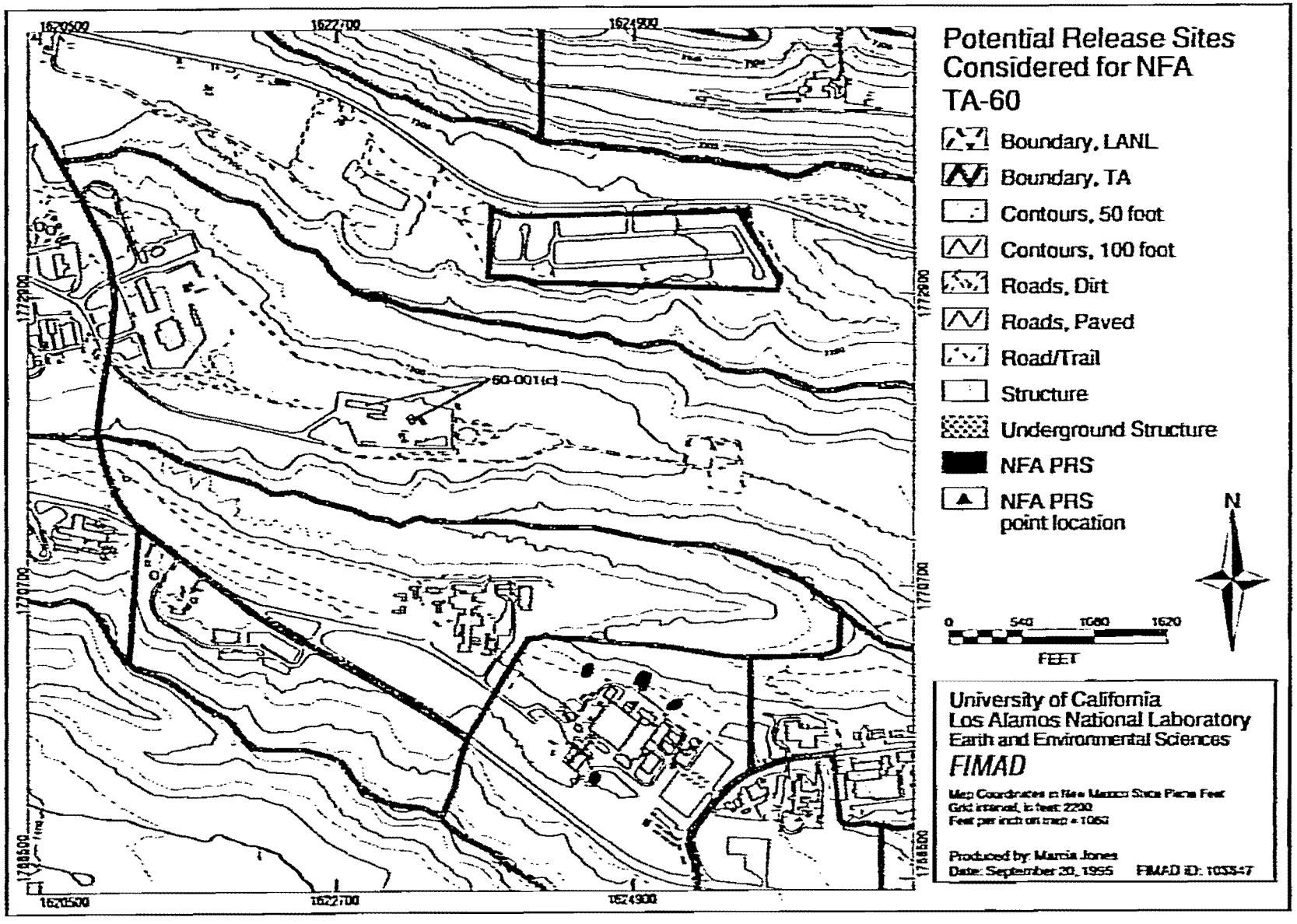

Figure A-19. Potential release sites considered for NFA, TA-60.

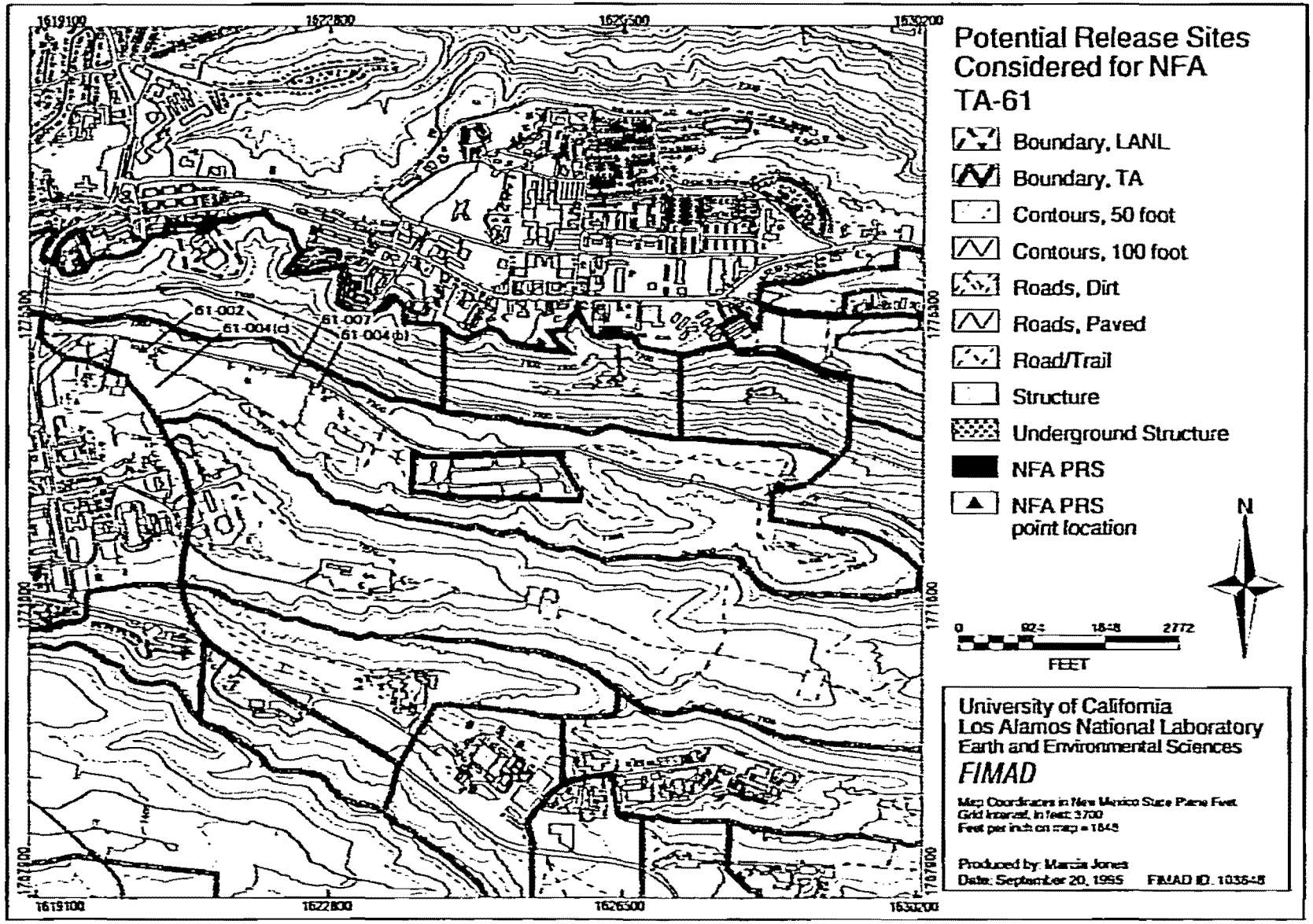

Figure A-20. Potential release sites considered for NFA, TA-61.

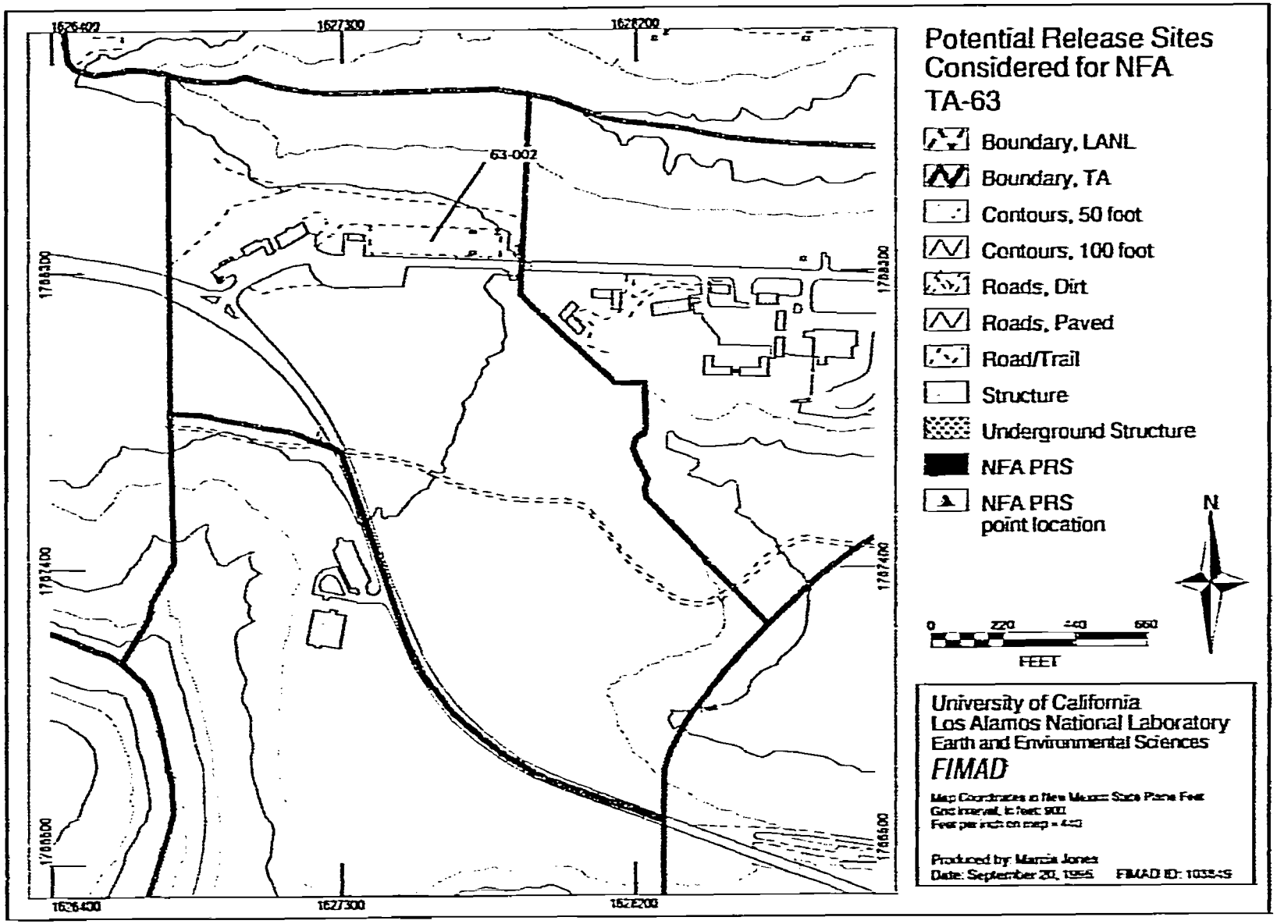

Figure A-21. Potential release sites considered for NFA, TA-63.

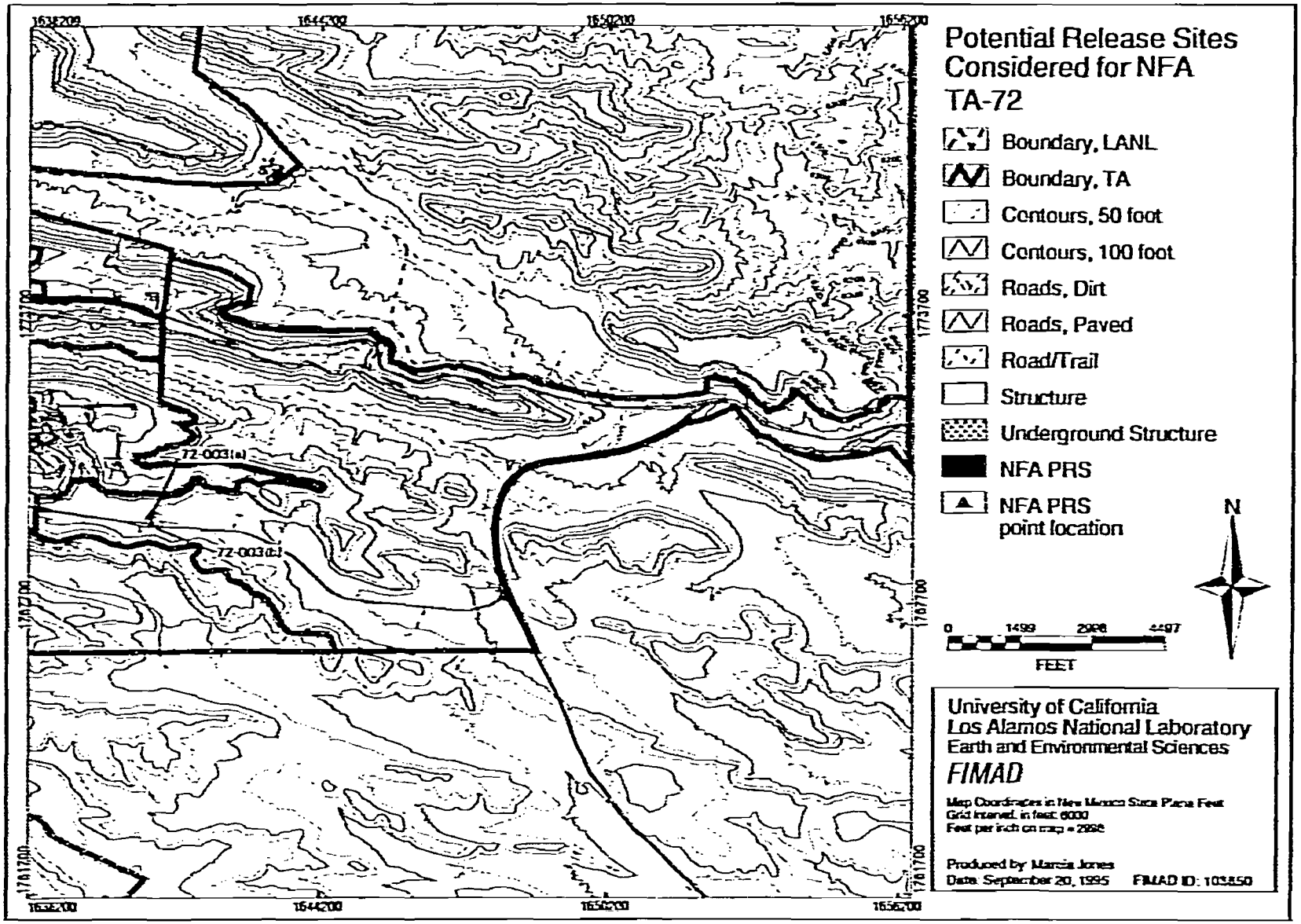

Figure A-22. Potential release sites considered for NFA, TA-72.

■ APPENDIX B

Requested Modifications to Tables A, B, and C of LANL's HSWA Module

Note:
This appendix contains the *requested modifications* to Tables A, B, and C of LANL's HSWA Module. The requested deletions to the tables are indicated by using strike-through text. The bolded and bracketed text indicates new text. Asterisks follow the deletions and additions requested in this document. The changes without asterisks were requested in the previous "Request for Permit Modification" submitted in March 1995. The number to the side of each listing for a technical area denotes the number of PRSs for that area. The number at the end of each page denotes the total number of PRSs on that page.

REQUESTED MODIFICATIONS TO TABLE A

SWMU Number	
Technical Area 0	
0-001	
0-003	
0-005	
0-011 (a)	
0-011 (c-e)	~~(21)~~
0-012	[(20)]
0-016	
0-017	
0-018 (a)	
0-019	
0-028 (a-b)	
0-030 (a-b)	
0-030 (g)	
0-030 (l-m)	
0-033	
0-039	
Technical Area 1	
~~1-001-(a-c)~~	
[1-001 (a-g)]	
[1-001 (m)]	
[1-001 (o)]	
1-001 (s-u)	
1-002	
1-003 (a)	~~(36)~~
1-003 (d-e)	[(30)]
1-006 (a-d)	
1-006 (h)	
1-006 (n-o)	
1-007 (a-e)	
1-007 (j)	
1-007 (l)	
Technical Area 2	
2-005	
2-006 (a-b)	(9)
2-007	
2-008 (a-b)	
2-009 (a-c)	
Technical Area 3	
~~3-001-(a-c)~~*	
~~3-001-(k)~~*	
~~3-002-(b-c)~~*	
[3-002(c)]*	
~~3-003-(a-c)~~*	
[3-003(a-b)]*	
~~3-009-(a-h)~~	
~~[3-009—(a)]~~*	
~~[3-009—(d)]~~*	
~~[3-009—(h)]~~*	
3-010 (a)	
~~3-012-(a-b)~~	
[3-012 (b)]	
3-013 (a)	
3-014 (a-u)	
3-015	~~(61)~~
~~3-018~~	~~[(51)]~~
~~3-020-(a)~~	[(40)]*
3-026 (d)	
3-028	
3-033	
~~3-035-(a-b)~~*	
3-038 (a)	
3-038 (c-d)	
3-037	
3-038 (a-b)	
~~3-039-(a)~~	
~~3-043-(e)~~	
3-044 (a)	
3-056 (a)	
3-056 (c)	
Technical Area 4	
4-001	
4-002	(4)
4-003 (a-b)	
Technical Area 5	
5-001 (a-b)	
5-002	
5-003	(11)
5-004	
5-005 (a-b)	
5-006 (b,c,e,h)	
	~~(142)~~
	[(125)]
	[(114)]*

Technical Area 6

6-001 (a-b)
6-002
6-003 (a) (19)
6-003 (c-h)
6-005
6-006
6-007 (a-g)

Technical Area 7

7-001 (a-d) (6)
7-003 (c-d)

Technical Area 8

8-002
~~8-003 (a-c)~~
[8-003 (a)]
8-004 (a-d)
8-005 ~~(16)~~
~~8-006 (a-b)~~ [(12)]
[8-006 (a)]
~~8-007~~
8-009 (a)
8-009 (d-e)
C-8-010

Technical Area 9

9-001 (a-d)
9-002
~~9-003 (a-l)~~
[9-003 (a)]
[9-003 (b)]
[9-003 (d)]
[9-003 (e)]
[9-003 (g-l)]
9-004 (a-o)
~~9-005 (a-h)~~ ~~(43)~~
[9-005 (a)] [(34)]
[9-005 (d)]
9-006
~~9-007~~
9-008 (b)
9-009
9-013
C-9-001

Technical Area 10

10-001 (a-d)
10-002 (a-b)
10-003 (a-o) ~~(26)~~
10-004 (a-b) [(25)]
10-005
10-006
10-007

Technical Area 11

11-001 (a-c)
11-002
11-004 (a-e)
11-005 (a-c) ~~(22)~~
11-006 (a-d) [(20)]
~~11-007~~
11-009
~~11-011 (a-d)~~
[11-011 (a)]
[11-011 (b)]
[11-011 (d)]

Technical Area 12

12-001 (a-b) ~~(3)~~
~~12-002~~ [(2)]

Technical Area 13

13-001
13-002 (4)
13-003 (a)
13-004

Technical Area 14

14-002 (a-l)
14-003
~~14-004 (b)~~*
14-005 ~~(13)~~
14-006 [(12)]*
14-007
14-009
14-010

~~(152)~~
~~[(135)]~~
[(134)]*

Technical Area 15

15-002
15-003
15-004 (a-c)
15-004 (f-g)
~~15-004 (i)~~
15-006 (a-d) (~~45~~)
~~15-007 (a-d)~~ [(44)]
[15-007(a-c)]* [(39)]*
15-008 (a-d)
~~15-009 (a-c)~~
[15-009(a)]*
~~15-009 (e-k)~~
[15-009(e-g)]*
[15-009(i-k)]*
15-010 (a-c)
15-011 (a-c)
15-012 (a-b)
15-014 (a-b)
~~15-014 (l-m)~~
[15-014(l-l)]*

Technical Area 16

16-001 (a-e)
16-003 (a-o)
16-004 (a-l)
16-005 (g)
~~16-005 (i)~~
~~16-005 (n-o)~~
[16-005 (n)]
~~16-006 (a-l)~~
[16-006 (a)]
[16-006 (c-e)]
16-007 (a) (~~105~~)
16-008 (a) [(~~91~~)]
16-009 (a) [(74)]*
~~16-010 (a-n)~~
[16-010 (a-f)]
[16-010 (h-n)]
~~16-012 (a-z)~~
~~[16-012—(a-c)]~~
~~[16-012—(e-h)]~~
~~[16-012—(k)]~~
~~[16-012—(o)]~~
~~[16-012—(q)]~~
~~[16-012—(r)]~~
~~[16-012—(s)]~~
~~[16-012—(v)]~~
~~[16-012—(w)]~~
~~[16-012—(y)]~~
~~[16-012—(z)]~~
16-013
16-016 (a-c)
16-018
16-019
16-020
16-021 (a)
16-021 (c)
16-026 (b-e)
16-026 (h2)
16-026 (l2)
16-026 (v)
16-029 (a-g)
16-030 (h)
16-035
16-036

Technical Area 18

18-001 (a-c)
18-002 (a-b)
18-003 (a-h) (19)
18-004 (a-b)
18-005 (a)
18-007
18-012 (a-b)

Technical Area 19

19-001
19-002 (3)
19-003

Technical Area 20

20-001 (a-c)
20-002 (a-d) (9)
20-003 (a)
20-005

(~~181~~)
[(~~186~~)]
[(144)]*

Technical Area 21

21-002 (a)	
21-003	
21-004 (b-c)	
21-005	
21-006 (a-e)	
21-007	
21-010 (a-h)	(83)
21-011 (a-g)	[(82)]
21-011 (i-k)	[(75)]*
21-012 (a-b)	
[21-012 (b)]	
21-013 (a-e)	
21-014	
21-015	
21-016 (a-c)	
21-017 (a-c)	
21-018 (a-b)	
21-021	
21-022 (a-j)	
21-023 (a-d)	
21-024 (a-o)*	
[21-024(a-i)]*	
[21-024(l)]*	
21-026 (a-b)	
21-027 (a-d)*	
[21-027(a)]*	
[21-027(c)]*	
21-029	

Technical Area 22

22-010 (a)	
22-010 (b)	
22-011	
22-012	
22-014 (a-b)	(12)
22-015 (a-e)	[(11)]
22-016	

Technical Area 26

26-001	
26-002 (a-b)	(4)
26-003	

Technical Area 27

27-001	
27-002	(3)
27-003	

Technical Area 31

31-001	(1)

Technical Area 32

32-001	
32-002 (a-b)	(3)

Technical Area 33

33-001 (a-e)	
33-002 (a-e)	
33-003 (a-b)	
33-004 (a-k)	
[33-004 (a-d)]*	
[33-004(a-c)]*	
[33-004 (g-k)]*	
[33-004(i-k)]*	
33-004 (m)	
33-005 (a-c)	
33-006 (a-b)	(52)
33-007 (a-c)	[(50)]
33-008 (a-b)	[(44)]*
33-009	
33-010 (a-d)	
33-010 (i-h)*	
[33-010(g-h)]*	
33-011 (a)	
33-011 (c-e)*	
[33-011(c-d)]*	
33-012 (a)*	
33-013	(158)
33-014	[(154)]
33-015	[(141)]*
33-016	
33-017	

Technical Area 35

35-002
35-003 (a-q)
[35-003 (a-h)]
[35-003 (j-o)]
[35-003 (q)]
35-004 (a-b)
35-004 (e)
35-004 (g-h)
35-006
35-008
35-009 (a-e)
35-010 (a-d)
35-011 (a)
35-013 (a-d) (54)
35-014 (a-b) [(44)]
35-014 (e)
35-014 (g)
35-015 (a-b)
35-016 (a)
35-016 (c-d)
35-016 (l)
35-016 (k)
35-016 (m)
35-016 (o-q)

Technical Area 36

36-001
36-002
36-003 (a-c) (9)
[36-003(a)] [(8)]
[36-003(b)]
36-004 (d)
36-005
36-006
C-36-003

Technical Area 39

39-001 (a-b)
39-002 (a)
39-003 (14)
39-004 (a-e) [(12)]
39-005
39-006 (a-b)
[39-006(a)]
39-007 (a)
39-008

Technical Area 40

40-001 (a-c)
[40-001 (b)]
[40-001 (c)]
40-003 (a)
40-004 (11)
40-005 [(10)]
40-006 (a-c)
40-009
40-010

Technical Area 41

41-001 (4)
41-002 (a-c)

Technical Area 42

42-001 (a-c)
42-002 (b) (5)
42-003

Technical Area 43

43-001 (a) (2)
43-002

Technical Area 45

45-001
45-002 (4)
45-003
45-004

Technical Area 46

46-002
46-003 (a-h)
46-004 (a-h)
[46-004 (b-h)]
46-004 (a2-d2)
46-004 (m)
46-004 (p-z)
46-005 (51)
46-006 (a-d) [(49)]
46-006 (l-g)
46-007
46-008 (a-g)
[46-008 (a)]
[46-008 (b)]
[46-008 (d-g)]
46-009 (a-b)
46-010 (d)

(154)
[(138)]

Technical Area 48

48-002 (a-b)
48-003
~~48-004 (a-c)~~ ~~(13)~~
48-005 [(10)]
48-007 (a-d)
48-007 (l)
48-010

Technical Area 49

49-001 (a-g)
49-003 (11)
49-004
49-005 (a)
49-006

Technical Area 50

50-001 (a)
50-002 (a-c)
50-004 (a-c) (12)
50-006 (a)
50-006 (c-d)
50-009
50-011 (a)

Technical Area 52

~~52-001 (a-d)~~
~~52-002 (a-l)~~ ~~(10)~~
[52-002 (a)] [(2)]
[52-002 (e)]

Technical Area 53

53-001 (a-b)
53-002 (a-b)
~~53-005~~ ~~(12)~~
53-006 (b-l) [(11)]*
~~53-007 (a-b)*~~
[53-007(a)]*

Technical Area 54

54-001 (a)
~~54-001 (c)~~
54-004 (excluding Shaft No. 9)
54-005
54-006
~~54-007 (a-c)~~ ~~(20)~~
[54-007 (a)] [(16)]
[54-007 (c)]
54-012 (b)
~~54-013 (a-b)~~
[54-013 (b)]
54-014 (b-d)
~~54-015 (h)~~
54-015 (k)
54-017
54-018
54-019
54-020

Technical Area 55

~~55-008~~ ~~(2)~~
55-009 [(0)]

Technical Area 59

~~59-001~~ ~~(1)~~
[(0)]

Technical Area 60

60-002
60-005 (a) ~~(5)~~
60-006 (a) [(4)]
60-007 (a-b)

Technical Area 61

61-002
~~61-004(a)~~ ~~(5)~~
61-005 [(4)]
61-006 [(3)]*
~~61-007*~~

Technical Area 63

63-001(a-b) (2)

Technical Area 69

69-001 (1)

~~(94)~~
[~~(74)~~]
[(72)]*

Technical Area 73

73-001 (a-d)
73-002
73-004 (a-d) (11)
73-005
73-006

~~(11)~~
[(11)]

Total SWMUs in Table A = ~~892~~ [803]
[754]*

REQUESTED MODIFICATIONS TO TABLE B - PRIORITY SWMUS**

SWMU No.

0-005
~~1-001-(a-n)~~
[1-001 (a-g)]
[1-001 (o)]
1-002
1-003 (a)
2-005
2-008 (a)
3-010 (a)
~~3-012-(a-b)~~
[3-012 (b)]
3-013 (a)
3-015
~~3-020-(a)~~
5-005 (a)
6-007 (a)
~~8-003-(a-c)~~
[8-003(a)]
~~8-007~~
9-008 (b)
9-009
9-013
10-003 (a-l)
10-006
11-004 (a-e)
11-005 (a-b)
11-006 (a)
13-004
15-002
15-006 (a-d)
~~15-007-(a-d)~~*
[15-007(a-c)]*
15-008 (a-d)
~~15-009-(a-b)~~*
[15-009(a)]*
15-012 (a-g)
16-001 (b-o)
~~16-005-(n-o)~~
[16-005 (n)]
16-006 (a)
~~16-006-(c-l)~~
[16-006 (c-o)]
16-007
16-008 (b)
16-016
16-018

SWMU No.

16-019
16-020
16-021 (a)
18-001 (a)
18-003 (a-h)
21-006 (a-e)
21-010 (a-h)
21-011 (a-l)
~~21-012-(a)~~
21-014
21-015
21-016 (a)
21-017(a-c)
21-018 (a-b)
22-015 (c)
33-002 (a-c)
33-017
~~35-003-(a-q)~~
[35-003 (a-h)]
[35-003 (j-o)]
[35-003 (q)]
35-006
35-010 (a-d)
~~36-003-(a-o)~~
36-003 (a)
36-003 (b)
39-001 (a-b)
41-001
46-002
46-006 (a-d)
46-007
49-001 (a)
50-006 (a)
50-006 (c-d)
50-009
54-004 (except Shaft No. 9)
54-005
~~54-015-(h)~~
60-005 (a)
73-001 (a)

~~170 SWMUs~~
~~[159]~~
[(157)]*

** As RFI work progresses, EPA may identify more SWMUs to be added to the list to be addressed in the installation workplans.

REQUESTED MODIFICATIONS TO TABLE C

RFI Work Plan due July 7, 1994:	RFI Work Plan due July 7, 1995:	RFI Work Plan due May 21, 1995:
Technical Area 16	Technical Area 16	Operable Unit 1114
~~16-005 (a-l)~~:	16-016 (d-e)	3-002(a)
[16-005(a)]*	16-016 (g)	3-002(d)
[16-005(c-e)]*	16-025 (a2)	3-009(l)
16-005 (h)	16-025 (d2)	3-009(l)
16-005 (j-m)	16-025 (e2)	3-011
~~16-006 (g-l)~~:	16-025 (f2)	3-019
[16-006(g-h)]*	16-025 (h2)	3-021
16-015 (a,b)	16-026 (a-a2)	3-024
16-017	16-026 (b2)	3-025(a-b)
16-024(e)	16-026 (c2)	3-026(b-c)
16-025 (a)	16-026 (d2)	3-029
16-025 (b-b2)	16-026 (e2)	3-031
~~16-025 (c-c2)~~:	16-026 (f-f2)	3-032
[16-025(c2)]*	16-026 (g-g2)	3-034(a-b)
16-025 (d-f)	16-026 (h-j)	3-043(c)
~~16-025 (g-g2)~~:	16-026 (k-k2)	3-045(a-l)
[16-025(g)]*	16-026 (l)	3-046
16-025 (h-z)	16-026 (r)	3-049(a-e)
~~16-026 (l2)~~:	16-026 (t-u)	3-050(a)
16-026 (m-q)	16-026 (x-z)	3-050(d-g)
16-026 (s)	16-028 (b-e)	3-052(a)
16-026 (w)	16-029 (h-j)	3-052(c)
16-028 (a)	16-030 (a-c)	3-052(e-f)
16-029 (a2-h2)	16-030 (e-l)	3-054(a-e)
16-029 (k-z)	16-031 (a-b)	3-055(a)
16-031 (c-d)	16-031 (e-l)	3-055(c-d)
~~16-031 (g)~~:	16-031 (h)	3-056(d)
16-032 (a)	16-034 (h-k)	3-056(l-n)
~~16-032 (c-e)~~:		3-059
[16-032(c)]*		
~~16-034 (a-g)~~:		
[16-034(a-f)]*		
16-034 (l-p)		
C-16-025		
C-16-026		
**Total SWMUs = ~~101~~ [91]*	Total SWMUs = 51	Total SWMUs = 55

** Twenty additional SWMUs were added after workplan review.

■ APPENDIX C

Proposed Tables A, B, and C of LANL's HSWA Module

Note:
This appendix contains the proposed Tables A, B, and C for LANL's HSWA Module. The bolded text indicates the proposed new text. Asterisks follow the new text requested in this document. The bolded text without asterisks indicates new text in the previous "Request for Permit Modification" submitted in March 1995. The number to the side of each listing for a technical area denotes the number of PRSs for that area. The number at the end of each page denotes the total number of PRSs on that page.

PROPOSED TABLE A

SWMU Number	
Technical Area 0	
0-001	
0-003	
0-011 (a)	
0-011 (c-e)	
0-012	(20)
0-016	
0-017	
0-018 (a)	
0-019	
0-028 (a-b)	
0-030 (a-b)	
0-030 (g)	
0-030 (l-m)	
0-033	
0-039	
Technical Area 1	
1-001 (a-g)	
1-001 (m)	
1-001 (o)	
1-001 (s-u)	
1-002	
1-003 (a)	
1-003 (d-e)	(30)
1-006 (a-d)	
1-006 (h)	
1-006 (n-o)	
1-007 (a-e)	
1-007 (j)	
1-007 (l)	
Technical Area 2	
2-005	
2-006 (a-b)	(9)
2-007	
2-008 (a-b)	
2-009 (a-c)	
Technical Area 3	
3-002(c)*	
3-003(a-b)*	
3-010 (a)	
3-012 (b)	
3-013 (a)	
3-014 (a-u)	
3-015	
3-026 (d)	
3-028	
3-033	
3-036 (a)	(40)
3-036 (c-d)	
3-037	
3-038 (a-b)	
3-044 (a)	
3-056 (a)	
3-056 (c)	
Technical Area 4	
4-001	
4-002	(4)
4-003 (a-b)	
Technical Area 5	
5-001 (a-b)	
5-002	
5-003	(11)
5-004	
5-005 (a-b)	
5-006 (b,c,e,h)	
Technical Area 6	
6-001 (a-b)	
6-002	
6-003 (a)	(19)
6-003 (c-h)	
6-005	
6-006	
6-007 (a-g)	

(133)

Technical Area 7

7-001 (a-d) (6)
7-003 (c-d)

Technical Area 8

8-002
8-003 (a)
8-004 (a-d)
8-005 (12)
8-006 (a)
8-009 (a)
8-009 (d-e)
C-8-010

Technical Area 9

9-001 (a-d)
9-002
9-003 (a) (34)
9-003 (b)
9-003 (d)
9-003 (e)
9-003 (g-l)
9-004 (a-o)
9-005 (a)
9-005 (d)
9-008
9-008 (b)
9-009
9-013
C-9-001

Technical Area 10

10-001 (a-d)
10-002 (a-b)
10-003 (a-o)
10-004 (a-b) (25)
10-005
10-007

Technical Area 11

11-001 (a-c)
11-002
11-004 (a-e)
11-005 (a-c)
11-006 (a-d) (20)
11-009
11-011 (a)
11-011 (b)
11-011 (d)

Technical Area 12

12-001(a-b) (2)

Technical Area 13

13-001
13-002 (4)
13-003 (a)
13-004

Technical Area 14

14-002 (a-l)
14-003
14-005 (12)
14-006
14-007
14-009
14-010

Technical Area 15

15-002
15-003
15-004 (a-c)
15-004 (f-g)
15-006 (a-d) (39)
15-007(a-c)*
15-008 (a-d)
15-009(a)*
15-009(a-g)*
15-009(l-k)*
15-010 (a-c)
15-011 (a-c)
15-012 (a-b)
15-014 (a-b)
15-014(l-l)*

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Technical Area 16

16-001 (a-e)
16-003 (a-o)
16-004 (a-l)
16-005 (g)
16-005 (n)
16-006 (a)
16-006 (c-e)
16-007 (a)
16-008 (a) (74)
16-009 (a)
16-010 (a-f)
16-010 (h-n)
16-013
16-016 (a-c)
16-018
16-019
16-020
16-021 (a)
16-021 (c)
16-026 (b-e)
16-026 (h2)
16-026 (j2)
16-026 (v)
16-029 (a-g)
16-030 (h)
16-035
16-036

Technical Area 18

18-001 (a-c)
18-002 (a-b)
18-003 (a-h) (19)
18-004 (a-b)
18-005 (a)
18-007
18-012 (a-b)

Technical Area 19

19-001
19-002 (3)
19-003

Technical Area 20

20-001 (a-c)
20-002 (a-d) (9)
20-003 (a)
20-005

Technical Area 21

21-002 (a)
21-003
21-004 (b-c)
21-005
21-006 (a-e)
21-007
21-010 (a-h)
21-011 (a-g) (75)
21-011 (i-k)
21-012 (b)
21-013 (a-e)
21-014
21-015
21-016 (a-c)
21-017 (a-c)
21-018 (a-b)
21-021
21-022 (a-j)
21-023 (a-d)
21-024 (a-l)*
21-024(l)*
21-026 (a-b)
21-027 (a)*
21-027(c)*
21-029

Technical Area 22

22-010 (a)
22-010 (b)
22-012
22-014 (a-b) (11)
22-015 (a-e)
22-016

Technical Area 26

26-001
26-002 (a-b) (4)
26-003

(195)

Technical Area 27

27-001
27-002 (3)
27-003

Technical Area 31

31-001 (1)

Technical Area 32

32-001
32-002 (a-b) (3)

Technical Area 33

33-001 (a-e)
33-002 (a-e)
33-003 (a-b)
33-004 (a-c)*
33-004 (i-k)*
33-004 (m)
33-005 (a-c)
33-006 (a-b)
33-007 (a-c) (44)
33-008 (a-b)
33-009
33-010 (a-d)
33-010 (g-h)*
33-011 (a)
33-011 (c-d)*
33-013
33-014
33-015
33-016
33-017

Technical Area 35

35-003 (a-h)
35-003 (i-o)
35-003 (q)
35-004 (a-b)
35-004 (g-h)
35-006
35-009 (a-e)
35-010 (a-d)
35-014 (a-b) (44)
35-014 (e)
35-014 (g)
35-015 (a-b)
35-016 (a)
35-016 (c-d)
35-016 (i)
35-016 (k)
35-016 (m)
35-016 (o-q)

Technical Area 36

36-001
36-002
36-003 (a) (8)
36-003 (b)
36-004 (d)
36-005
36-006
C-36-003

Technical Area 39

39-001 (a-b)
39-002 (a)
39-004 (a-e) (12)
39-005
39-006(a)
39-007 (a)
39-008

Technical Area 40

40-001 (b)
40-001 (c)
40-003 (a)
40-004
40-005 (10)
40-006 (a-c)
40-009
40-010

Technical Area 41

41-001 (4)
41-002 (a-c)

Technical Area 42

42-001 (a-c)
42-002 (b) (5)
42-003

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Technical Area 43

43-001 (a) (2)
43-002

Technical Area 45

45-001
45-002 (4)
45-003
45-004

Technical Area 46

46-002
46-003 (a-h)
46-004 (b-h)
46-004 (a2-d2)
46-004 (m)
46-004 (p-z)
46-005
46-006 (a-d) (49)
46-006 (f-g)
46-007
46-008 (a)
46-008 (b)
46-008 (d-g)
46-009 (a-b)
46-010 (d)

Technical Area 48

48-002 (a-b)
48-003
48-005 (10)
48-007 (a-d)
48-007 (f)
48-010

Technical Area 49

49-001 (a-g)
49-003 (11)
49-004
49-005 (a)
49-006

Technical Area 50

50-001 (a)
50-002 (a-c)
50-004 (a-c) (12)
50-006 (a)
50-006 (c-d)
50-009
50-011 (a)

Technical Area 52

[52-002 (a)] (2)
[52-002 (a)]

Technical Area 53

53-001 (a-b)
53-002 (a-b)
53-005 (11)
53-006 (b-l)
53-007 (a)*

Technical Area 54

54-001 (a)
54-004 (excluding Shaft No. 9)
54-005
54-006
54-007 (a) (16)
[54-007 (c)
54-012 (b)
54-013 (b)
54-014 (b-d)
54-015 (k)
54-017
54-018
54-019
54-020

Technical Area 60

60-005 (a)
60-006 (a) (4)
60-007 (a-b)

Technical Area 61

61-002
61-005 (3)
61-006

(124)

Technical Area 63

63-001(a-b)	(2)

Technical Area 69

69-001	(1)

Technical Area 73

73-001 (a-d) 73-002 73-004 (a-d) 73-005 73-006	(11)

(14)

Total SWMUs in Table A = 754

PROPOSED TABLE B - PRIORITY SWMUs**

SWMU No.	SWMU No.
1-001 (a-g)	16-019
1-001 (o)	16-020
1-002	16-021 (a)
1-003 (a)	18-001 (a)
2-005	18-003 (a-h)
2-008 (a)	21-006 (a-e)
3-010 (a)	21-010 (a-h)
3-012 (b)	21-011 (a-l)
3-013 (a)	21-014
3-015	21-015
5-005 (a)	21-016 (a)
6-007 (a)	21-017(a-c)
8-003(a)	21-018 (a-b)
9-008 (b)	22-015 (c)
9-009	33-002 (a-c)
9-013	33-017
10-003 (a-l)	35-003 (a-h)
11-004 (a-e)	35-003 (j-o)
11-005 (a-b)	35-003 (q)
11-006 (a)	35-010 (a-d)
13-004	36-003 (a)
15-002	36-003 (b)
15-006 (a-d)	39-001 (a-b)
15-007 (a-c)*	41-001
15-008 (a-d)	46-002
15-009 (a)*	46-006 (a-d)
15-012 (a-g)	46-007
16-001 (b-e)	49-001 (a)
16-005 (n)	50-006 (a)
16-006 (a)	50-008 (c-d)
16-006 (c-e)	50-009
16-007	54-004 (except Shaft No. 8)
16-008 (b)	54-005
16-016	60-005 (a)
16-018	73-001 (a)
	157 SWMUs

** As RFI work progresses, EPA may identify more SWMUs to be added to the list to be addressed in the installation workplans.

PROPOSED TABLE C

RFI Work Plan due July 7, 1994:	RFI Work Plan due July 7, 1995:	RFI Work Plan due May 21, 1995:
Technical Area 16	Technical Area 16	Operable Unit 1114
16-005 (a)*	16-016 (d-e)	3-002(a)
16-005 (c-e)*	16-016 (g)	3-002(d)
16-005 (h)	16-025 (a2)	3-009(l)
16-005 (j-m)	16-025 (d2)	3-009(l)
16-006 (g-h)*	16-025 (e2)	3-011
16-015 (a,b)	16-025 (f2)	3-019
16-017	16-025 (h2)	3-021
16-024(e)	16-026 (a-a2)	3-024
16-025 (a)	16-026 (b2)	3-025(a-b)
16-025 (b-b2)	16-026 (c2)	3-026(b-c)
16-025 (c2)*	16-026 (d2)	3-029
16-025 (d-l)	16-026 (e2)	3-031
16-025 (g)*	16-026 (f-f2)	3-032
16-025 (h-z)	16-026 (g-g2)	3-034(a-b)
16-026 (m-q)	16-026 (h-j)	3-043(c)
16-026 (s)	16-026 (k-k2)	3-045(a-l)
16-026 (w)	16-026 (l)	3-046
16-026 (a)	16-026 (r)	3-049(a-e)
16-029 (a2-h2)	16-026 (t-u)	3-050(a)
16-029 (k-z)	16-026 (x-z)	3-050(d-g)
16-031 (c-d)	16-026 (b-e)	3-052(a)
16-032 (a)	16-029 (h-j)	3-052(c)
16-032 (c)*	16-030 (a-c)	3-052(e-l)
16-034 (a-f)*	16-030 (e-l)	3-054(a-e)
16-034 (l-p)	16-031 (a-b)	3-055(a)
C-16-025	16-031 (e-l)	3-056(c-d)
C-16-026	16-031 (h)	3-056(d)
	16-034 (h-k)	3-056(l-n)
		3-059
**Total SWMUs = 91	**Total SWMUs = 51	**Total SWMUs = 55

** Twenty additional SWMUs were added after workplan review.