

**TA-15 SITE
TOUR**

**NMED BUREAU
PERSONNEL**

**DECEMBER 19,
1996**



3930

PROPOSED ACTIONS FOR TA-15

| PRS | HSWA | | NFA | Accelerated Cleanup | | Further Investigation | | Rationale |
|--|------|----|-----|---------------------|----|-----------------------|-----|---|
| | YES | NO | | VCA | EC | Phase II | CMS | |
| 15-004(b) <i>A-B</i> | X | | | | X | | | Contaminants found require further action |
| 15-004(c) <i>X-B</i> | X | | X | | | | | No RCRA contaminants found |
| 15-004(a) <i>C</i> | X | | X | | | | | No RCRA contaminants found |
| 15-004(d) <i>C</i> | | X | X | | | | | No RCRA contaminants found |
| 15-004(f) <i>E-F</i> | X | | | | X | | | Contaminants found require further action |
| 15-008(a) <i>E-F</i> | X | | | | X | | | Contaminants found require further action |
| 15-009(e) <i>SEPTIC</i> <i>E-F</i> | X | | | X | | | | Contaminants found require further action |
| C-15-004 <i>TRANSFORMER</i> | | X | X | | | | | No RCRA contaminants found |
| 15-007(b) <i>MDA-Z</i> | X | | | | X | | | Contaminants found require further action |
| 15-008(b) <i>R-44</i> | X | | | | X | | | Consider fully with Firing Site R-44, probable EC |
| 15-012(b) <i>"TRACY'S"</i> <i>WASH</i> | X | | | | X | | | Contaminants found require further action |
| 15-009(j) <i>SEPTIC TANK</i> | X | | | | X | | | Contaminants found require further action |

Note: HSWA = PRS is listed in Hazardous and Solid Waste Amendments Module of the Laboratory's RCRA Permit
 NFA = no further action
 VCA = voluntary corrective action
 EC = expedited cleanup

**TABLE ES-1
SUMMARY OF PROPOSED ACTIONS**

| PRS | HSWA | NFA Criteria* | Further Action | Rationale | Section |
|---|--------------|------------------|-------------------------------------|---|---------|
| Storage Area | | | | | |
| 15-001 | - | - | Deferred | Active site (STORAGE F-SITE) | 5.2 |
| Pit | | | | | |
| 15-002 <i>BURN AREA</i> | X | 5 | NFA for Human health | Site has been characterized and no COPCs are present | 5.12 |
| Inactive Firing Sites | | | | | |
| 15-004(g) | - | - | IA | Surface contaminants <i>G</i> | 5.1 |
| 15-004(h) | - | - | Deferred | Within active site radius of PHERMEX <i>H</i> | 5.6 |
| 15-006(c) | X | - | EC in 1997 | Contaminants present above PRGs <i>R44</i> | 5.35 |
| 15-006(d) | X | 5 | NFA for Human health | Site has been characterized and no COPCs are present <i>R45</i> | 5.36 |
| Container Storage Area | | | | | |
| 15-005(b) <i>BUNKERS @</i> | - | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.30 |
| 15-005(c) <i>THE BLDGS</i> | - | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.31 |
| Landfill | | | | | |
| 15-007(a) <i>MDA-N</i> | X | - | To be determined | Geophysical survey currently under way | 5.13 |
| Surface Disposals | | | | | |
| 15-008(c) <i>R45 SANDBAG</i> | X @ <i>G</i> | - | IA | Surface contaminants | 5.3 |
| 15-008(g) | - | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.37 |
| Active Septic Systems | | | | | |
| 15-009(a) | X | - | Deferred | Active site <i>SEPTIC @ HOLLOW</i> | 5.16 |
| 15-009(f) <i>SEPTIC</i> | X | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.28 |
| 15-009(i) <i>G</i> | X | - | Deferred | Active site | 5.4 |
| 15-009(k) <i>SEPTIC</i> | X | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.29 |
| Inactive Septic Systems | | | | | |
| 15-010(a) <i>MDA-N</i> | X | - | Phase II | Extent of contamination not defined; <i>INACT. SEPTIC</i> | 5.32 |
| 15-010(b) <i>BLDG 40</i> | X | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present <i>INACT SEPTIC</i> | 5.33 |
| 15-010(c) <i>PHERMEX</i> | X | 2 | NFA for Human health and ecology | Site has never been used for RCRA waste management <i>INACT SEPTIC</i> | 5.8 |
| Sump | | | | | |
| 15-011(a) <i>SUMP @ HOLLOW</i> | X | 1 | NFA for Human health and ecology | Site cannot be located or does not exist | 5.17 |
| 15-011(b) <i>DERIV LINE @ HOLLOW</i> | X | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.18 |

**TABLE ES-1
SUMMARY OF PROPOSED ACTIONS
(continued)**

| | | | | | |
|----------------------------|---|---|-------------------------------------|---|------|
| 15-011(c) | X | 5 | NFA for Human health | Site has been characterized and no COPCs are present | 5.19 |
| Operational Release | | | | | |
| 15-012(a) | X | 1 | NFA | Site cannot be located or does not exist | 5.38 |
| Outfalls | | | | | |
| 15-014(a) | X | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.26 |
| 15-014(b) | X | 1 | NFA for Human health and ecology | Site cannot be located or does not exist | 5.27 |
| 15-014(d) | - | 2 | NFA for Human health and ecology | Site has never been used for RCRA waste management | 5.9 |
| 15-014(e) | - | 2 | NFA for Human health and ecology | Site has never been used for RCRA waste management | 5.10 |
| 15-014(g) | - | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.22 |
| 15-014(h) | - | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.34 |
| 15-014(i) | X | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.20 |
| 15-014(j) | X | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.21 |
| 15-014(k) | X | 1 | NFA for Human health and ecology | Site cannot be located or does not exist | 5.23 |
| 15-014(l) | X | 2 | NFA for Human health and ecology | Site has never been used for RCRA waste management | 5.11 |
| Areas of Concern | | | | | |
| C-15-001 | - | - | Phase I, cont. | Isotopic uranium measurement necessary | 5.5 |
| C-15-005 | - | 5 | NFA for HH | Site has been characterized and no COPCs are present | 5.14 |
| C-15-006 | - | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.15 |
| C-15-007 | - | - | Deferred until 1997 | Temporary building on top of site | 5.24 |
| C-15-010 | - | - | Phase II | Nature and extent of any contamination not defined | 5.25 |
| C-15-011 | - | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.7 |

* See Project Consistency Team Policy Number 015 "No Further Action Criteria" (PCT, 1210)

**TABLE ES-1
SUMMARY OF PROPOSED ACTIONS
(continued)**

| | | | | | |
|---|---|---|-------------------------------------|---|------|
| 15-011(c) <i>OUTFALL @ HOLLOW</i> | X | 5 | NFA for Human health | Site has been characterized and no COPCs are present | 5.19 |
| Operational Release | | | | | |
| 15-012(a) <i>SUMP (OIL)</i> | X | 1 | NFA | Site cannot be located or does not exist | 5.38 |
| Outfalls | | | | | |
| 15-014(a) <i>W-183</i> | X | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.26 |
| 15-014(b) <i>W-183</i> | X | 1 | NFA for Human health and ecology | Site cannot be located or does not exist | 5.27 |
| 15-014(d) <i>@ PHERMEX</i> | - | 2 | NFA for Human health and ecology | Site has never been used for RCRA waste management | 5.9 |
| 15-014(e) <i>@ PHERMEX</i> | - | 2 | NFA for Human health and ecology | Site has never been used for RCRA waste management | 5.10 |
| 15-014(g) <i>OUTFALL @ HOLLOW</i> | - | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.22 |
| 15-014(h) <i>OUTFALL BEHIND R-40</i> | - | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.34 |
| 15-014(i) <i>OUTFALL @ HOLLOW</i> | X | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.20 |
| 15-014(j) <i>OUTFALL @ HOLLOW</i> | X | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.21 |
| 15-014(k) <i>CONCRETE @ HOLLOW</i> | X | 1 | NFA for Human health and ecology | Site cannot be located or does not exist | 5.23 |
| 15-014(l) <i>DRAINLINE @ PHERMEX</i> | X | 2 | NFA for Human health and ecology | Site has never been used for RCRA waste management | 5.11 |
| Areas of Concern | | | | | |
| C-15-001 <i>FIRE SITE G</i> | - | - | Phase I, cont. | Isotopic uranium measurement necessary | 5.5 |
| C-15-005 <i>MDA-N</i> | - | 5 | NFA for HH | Site has been characterized and no COPCs are present | 5.14 |
| C-15-006 <i>MDA-N</i> | - | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.15 |
| C-15-007 <i>OIL STAIN @ HOLLOW</i> | - | - | Deferred until 1997 | Temporary building on top of site | 5.24 |
| C-15-010 <i>FORMER FUEL TANK @ HOLLOW</i> | - | - | Phase II | Nature and extent of any contamination not defined | 5.25 |
| C-15-011 <i>FORMER FUEL TANK @ PHERMEX</i> | - | 5 | NFA for Human health and ecology | Site has been characterized and no COPCs are present | 5.7 |

* See Project Consistency Team Policy Number 015 "No Further Action Criteria" (PCT, 1210)

KIM

FAX TRANSMITTAL SHEET

Los Alamos National Laboratory

Engineering Sciences & Applications Division
ESA-EPE Energy & Process Engineering Support Group
P. O. Box 1663, MS G787
Los Alamos, New Mexico 87545

Phone: (505) 665-4348

FAX #: (505) 665-1976

TO: KIM HILL / MARTYNE KEILINGFAX #: 827-1545FROM: DOUG PIPPINPhone: 667-3358 / 699-4890Date/Time: 12/12/96 0900Cover sheet + 6 pages

MESSAGE: Please make sure that each
visitor signs and brings the signature
form with them - Any questions, please
call me -

Thanks
Doug

Approved By: A. D. Vasilik
Document No.: M-2-93-TJ-VI-KI/III
Effective Date: February 13, 1996
Revision No.: E

AREA K-I/AREA III VISITOR INFORMATION/ORIENTATION

I. Instructions

Please read this information and attest to this by signing the signature sheet, then the daily logbook. Your signature means that you have read, understand, and have had an opportunity to ask questions about this information. Visitors will keep the copy of their orientation (updated yearly) which includes a list of emergency numbers and a map of the DX-4 areas. Designated buildings are equipped with fire extinguishers, first aid kits, and telephones. Please keep this information with you during your visit.

II. General Information

Potential hazards at Area K-I and Area III include the following: explosives, high voltage, radiation (pulsed x-ray machines), heavy equipment, and suspect depleted uranium (DU) contamination. Visitors will not touch or handle any material or equipment without the permission of a Q-cleared individual who is familiar with procedures and operations within Area K-I/Area III and who assumes responsibility for the safety and security of the visitor while at the site.

Remember that you are observers at the sites or are here to perform a specific job. Ensure, through the Access Control Office, that you do not interfere with test setup or operation.

At any time during shot operations, it is the site leader's prerogative to reduce the personnel limits at the firing site if the situation or activity warrants.

Firing site leaders have full responsibility (and commensurate authority) for everything that happens at their site. Their orders will be followed.

The Laboratory does not provide emergency medical care for visitors. However, the hospital Emergency Room is available. Call 911 for Emergency Response.

Restrooms are located in the office buildings at TA-15 and in buildings R-280, R-186, R-185, and R-310.

The tap water (where available) in Area K-I is not potable. Drink only bottled water. The water in Area III is potable except for the water in Building R-186.

Working hours are 8:00 a.m. to 4:00 p.m. If you will be in the firing areas after hours, arrangements to exchange your badge should be made with the Access Control Office at 667-6742.

Approved By: A. N. Vasilich
Document No.: M-2-93-TI-VI-KI/III
Effective Date: February 13, 1996
Revision No.: E

III. Specific Safety Requirements

Access to the firing points may not be possible if shot operations are scheduled.

No matches, lighters, or other flame producing devices are allowed in the area. Electric lighters are available in most bunkers. As long as no HE is in the vicinity of the bunker, smoking is allowed on the concrete pad immediately outside the bunker door.

The speed limit for all R-Site roads is 35 mph. Please drive safely.

Do not leave paved roads, in a vehicle or on foot, without special permission. If permission is granted, you are required to attend an "enhanced visitor orientation", to be scheduled through the Access Control Office (667-6742). Personnel and equipment that have been off the paved roads must be monitored prior to leaving the area.

Road blocks may be manned or unmanned and are used for various clearance procedures for firing shots. Do not pass manned roadblocks, or unmanned barricades (saw horse, chains, gates, etc.) without permission from the roadblock attendant, relevant site personnel, or the Access Control Office (667-6742).

After obtaining permission to enter, visitors will close the safety gates behind them. Visitors will only travel to specified destinations. Any change in plans must be discussed with and approved by the Access Controller.

MSDSs for chemicals typically in use are available in the ES&H Library and at the facilities where they are used.

Visitors may be required to wear TLD badges, safety glasses, safety shoes, booties, or other protective gear as a condition of access.

The following siren sequence is used at TA-15 and TA-36 as a warning of test operations.

TA-15 Sequence:

1. Siren sounds for 30 seconds.
2. Siren is silent for 30 seconds.
3. Siren sounds for a minimum of 90 seconds. (The siren actually sounds until the shot is fired.)
4. Siren sounds at least 45 seconds after the shot is fired.
5. All clear signal is two (2) or more short siren blasts.

TA-36 Sequence:

1. Siren sounds for 30 seconds.
2. Siren is silent for 30 seconds.
3. Siren sounds for a minimum of 45 seconds. (The siren actually sounds until the shot is fired.)
4. Siren sounds at least 60 seconds after the shot is fired.
5. All clear signal is two (2) or more short siren blasts.

Approved By: H. N. Vaulich
Document No.: M-2:93-T1-VI-KI/III
Effective Date: February 13, 1996
Revision No.: E

IV. Security Requirements

Q-Cleared visitors will exchange their badges for V-badges immediately before entering and immediately after leaving Area K-I or Area III. Uncleared and L-Cleared persons will not exchange their badges for V-Badges, but will be listed with the badge of the Q-cleared escort.

Escorts must accompany Uncleared and L-Cleared visitors into any Q-Cleared building or any of the DX-4 firing sites. Escorts must familiarize themselves with the "DX-4 Procedures for L-Cleared/Uncleared Visitors".

If cleared visitors are in Area K-I or Area III when a clearance (hazard radius) plan will be in effect, they will be asked to leave or will be placed under the escort of a DX employee with a pictured exchange badge. Uncleared and L-cleared visitors must have permission, coordinated by the Access Controller, to be in Area K-I or Area III when a firing activity will be conducted. All visitors will be under DX escort while any plan is in effect.

Approved By: A.D. Vasilik
 Document No.: M-2-93-TI-VI-KI/III
 Effective Date: February 13, 1996
 Revision No.: E

USEFUL TELEPHONE NUMBERS

| | |
|---|-----------------|
| Emergency | 911 |
| Emergency Management | 7-6211 |
| FSS-9 Facility Coord. (Rudy Rodriguez) | 7-9414 |
| Pager Number | 104-7210 |

| | |
|--|-----------------|
| DX-4 Group Office | 7-4246 |
| DX-4 Group Leader (John McAfee) | 7-6874 |
| Safety Officer (Jerry Vasilik) | 7-9293 |
| Pager Number | 984-5919 |
| Waste Management Coordinators (Gordon Jlo) | 7-4325 |
| Pager Number | 104-8478 |
| (Bert Harry) | 5-0694 |
| Pager Number | 988-0506 |
| FSS-9/JCI Coordinator (Joseph Lopez/Janette Lujan) | 7-6742 |
| Nuclear Material/Classified Custodians (Janette Lujan/Joseph Lopez) | 7-6742 |
| DX-4 Access Control Office (Janette Lujan/Joseph Lopez) | 7-6742 |

| | |
|---|---------------|
| Building R306 Contact (Leroy Garcia) | 7-5391 |
| Eenie Site Contact (Victor Sandoval) | 7-4036 |
| Meenie Site Contact (Victor Sandoval) | 7-4037 |
| Minie Site Contact (Victor Sandoval) | 7-4797 |
| Lower Slobbovia Contact (Eddie Viramontes) | 7-4798 |
| Buildings R-184/R-185 (Joe Schwaegel) | 7-6486 |
| Building R-310 (Lynn Adair) | 7-6527 |

NPDES STORM WATER GENERAL PERMIT
MONITORING SITES
LAND DISPOSAL UNITS/INCINERATORS/BIFS

| LOCATION | OPERATION | INDUSTRIAL ACTIVITY | SAMPLE |
|---|------------------------------|---------------------|--------|
| TA-06 MDA F | SWMU, MATERIAL DISPOSAL AREA | LANDFILL | NO |
| Comments: This site is one of the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is a Material Disposal Area and is being addressed under the Laboratory's Environmental Restoration Project. This area was used for the disposal of unsalvageable classified objects. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is not significant material exposed to storm water and the unit does have a stabilized cover. Therefore, monitoring of this area under the NPDES General Permit is not recommended. | | | |
| TA-09 MDA M | SWMU, MATERIAL DISPOSAL AREA | LANDFILL | NO |
| Comments: This site is one of the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is a Material Disposal Area and is being addressed under the Laboratory's Environmental Restoration Project. This site was remediated in 1996. | | | |
| TA-14-43 | SWMU, 14-009 | SURFACE DISPOSAL | NO |
| Comments: This site is one of the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site was used as a surface disposal area and is being addressed under the Laboratory's Environmental Restoration Project. Surface disposal consisted of ruptured sand bags from a bullet firing range. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is not significant material exposed to storm water and there is not a point source discharge. Therefore, monitoring of this area under the NPDES General Permit is not recommended. | | | |
| TA-15-44 | SWMU, 15-008(b) | SURFACE DISPOSAL | NO |
| Comments: This site is one of the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site was used as a surface disposal area and is being addressed under the Laboratory's Environmental Restoration Project. Surface disposal consists of metal and plastic pieces, and material from ballistic studies. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no point source discharge from this site and run-on controls will be put in place. Therefore, monitoring of this area under the NPDES General Permit is not recommended. | | | |
| TA-15-314 | SWMU, 15-008(g) | SURFACE DISPOSAL | NO |
| Comments: This site is one of the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is a surface disposal area and is being addressed under the Laboratory's Environmental Restoration Project. Surface disposal material listed is a pile of sandbags. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no point source discharge from this site and there is not significant material exposed to storm water. Therefore, monitoring of this area under the NPDES General Permit is not recommended. | | | |

NPDES STORM WATER GENERAL PERMIT

MONITORING SITES

LAND DISPOSAL UNITS/INCINERATORS/BIFS

| LOCATION | OPERATION | INDUSTRIAL ACTIVITY | SAMPLE |
|--|------------------------------|---------------------|--------|
| TA-15 MDA Z | MATERIAL DISPOSAL AREA | LANDFILL | NO |
| Comments: This site is one of the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is a Material Disposal Area and is being addressed under the Laboratory's Environmental Restoration Project. Listed materials include construction material and materials from shot activities. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no point source discharge from this site (no flow) and the small drainage from the site will be bermed. Therefore, monitoring of this area under the NPDES General Permit is not recommended. | | | |
| TA-16 MDA P | MATERIAL DISPOSAL AREA | LANDFILL | NO |
| Comments: This location contains a landfill Material Disposal Area (MDA) P. A diversion channel was constructed 1993 to divert all surface run-on around the MDA P. The downslope side of the landfill was visited throughout the year to determine if runoff exists. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that the runoff controls put in place prevent a point source discharge from this site. Therefore, monitoring of this area under the NPDES General Permit is not recommended. | | | |
| TA-16-1409 | INCINERATOR | INCINERATOR | NO |
| Comments: This site consists of a high explosives incinerator. The grading around the incinerator precludes the formation of a discharge from this facility. The grading will be maintained as discussed in the SWPP Plan. Therefore, monitoring of this area under the NPDES General Permit is not recommended. | | | |
| TA-21-MDA A | SWMU, MATERIAL DISPOSAL AREA | LANDFILL | NO |
| Comments: This site is one of the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is a Material Disposal Area, and is being addressed under the Laboratory's Environmental Restoration Project. Site visits in 12/94 and 3/95 and other information indicate that MDA-A consists of 2 USTs and 5 Pits. Of the five pits listed, two were found. A third pit was constructed in 1969 and contains building debris. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is not significant material exposed to storm water and the unit does have a stabilized cover. Therefore, monitoring of this area under the NPDES General Permit is not recommended. | | | |
| TA-21 MDA B | SWMU, MATERIAL DISPOSAL AREA | LANDFILL | NO |
| Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is a Material Disposal Area and is being addressed under the Laboratory's Environmental Restoration Project. This landfill is covered with asphalt on the western portion and in 1982-84 an extensive surface renovation and replanting project was initiated to study the effectiveness of trench caps. No point source was observed on the eastern portion and the point sources on the western end are off of the asphalt cap. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is not significant material exposed to storm water and the unit does have a stabilized cover. Therefore, monitoring of this area under the NPDES General Permit is not recommended. | | | |

NPDES STORM WATER GENERAL PERMIT

MONITORING SITES

LAND DISPOSAL UNITS/INCINERATORS/BIFS

| LOCATION | OPERATION | INDUSTRIAL ACTIVITY | SAMPLE |
|---|------------------------------|---------------------|--------|
| TA-21 MDA T | SWMU, MATERIAL DISPOSAL AREA | SUBSURFACE DISPOSAL | NO |
| <p>Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is a Material Disposal Area and is being addressed under the Laboratory's Environmental Restoration Project. This site contains adsorption beds, sumps and shafts used for the disposal. This site does not meet the land disposal unit definition. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is not significant material exposed to storm water and the unit does have a stabilized cover. Therefore, monitoring of this area under the NPDES General Permit is not recommended.</p> | | | |
| TA-21 MDA U | SWMU, MATERIAL DISPOSAL AREA | SUBSURFACE DISPOSAL | NO |
| <p>Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is listed as an Material Disposal Area and is being addressed under the Laboratory's Environmental Restoration Project. This site contains (2) adsorption beds and is graded to divert storm water run-on away from the sites. This site does not meet the land disposal unit definition. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is not significant material exposed to storm water and the unit does have a stabilized cover. Therefore, monitoring of this area under the NPDES General Permit is not recommended.</p> | | | |
| TA-21 MDA V | SWMU, MATERIAL DISPOSAL AREA | SUBSURFACE DISPOSAL | NO |
| <p>Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is listed as an Material Disposal Area and is being addressed under the Laboratory's Environmental Restoration Project. This site contains (3) adsorption beds. This site does not meet the land disposal unit definition. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is not significant material exposed to storm water and the unit does have a stabilized cover. Therefore, monitoring of this area under the NPDES General Permit is not recommended.</p> | | | |
| TA-33 MDA E | SWMU, MATERIAL DISPOSAL AREA | LANDFILL | NO |
| <p>Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is listed as a Material Disposal Area and is being addressed under the Laboratory's Environmental Restoration Project. This site contains (5) pits used for the disposal of contaminated equipment and shot debris. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no point source discharge from this site. Therefore, monitoring of this area under the NPDES General Permit is not recommended.</p> | | | |

NPDES STORM WATER GENERAL PERMIT
MONITORING SITES
LAND DISPOSAL UNITS/INCINERATORS/BIFS

| LOCATION | OPERATION | INDUSTRIAL ACTIVITY | SAMPLE |
|--|------------------------------|---------------------|--------|
| TA-33 | SWMU, 33-010(a) | LANDFILL | NO |
| <p>Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is listed as a landfill and is being addressed under the Laboratory's Environmental Restoration Project. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no point source discharge from this site and run-on controls will be put in place. Therefore, monitoring of this area under the NPDES General Permit is not recommended.</p> | | | |
| TA-33 | SWMU, 33-010(c) | SURFACE DISPOSAL | NO |
| <p>Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. The site is listed as a surface disposal unit and is being addressed under the Laboratory's Environmental Restoration Project. An Interim Action was completed in 1996 including stabilization and source removal. There is no point source discharge. Therefore, monitoring for this area under the NPDES General Permit is not recommended.</p> | | | |
| TA-33 | SWMU, 33-008(a) | LANDFILL | NO |
| <p>Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is listed as a landfill and is being addressed under the Laboratory's Environmental Restoration Project. This site consists of a horseshoe shaped berm used for the disposal of contaminated equipment, timbers, and shot debris. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no significant material exposed to storm water, the unit has a stabilized cover and the type of material is "construction type" waste. Therefore, monitoring of this area under the NPDES General Permit is not recommended.</p> | | | |
| TA-33-151 | SWMU, 33-008(b) | LANDFILL | NO |
| <p>Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is a landfill and is being addressed under the Laboratory's Environmental Restoration Project. This site contains the barricades and other operational debris from this firing site. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no significant material exposed to storm water, and the type of material is "construction type" waste. Therefore, monitoring of this area under the NPDES General Permit is not recommended.</p> | | | |
| TA-33 MDA K | SWMU, MATERIAL DISPOSAL AREA | SUBSURFACE DISPOSAL | NO |
| <p>Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is a Material Disposal Area and is being addressed under the Laboratory's Environmental Restoration Project. This site consists of a septic tanks, sumps, and a leach field. This site does not meet the land disposal unit definition. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no significant material exposed to storm water, the unit has a stabilized cover. Therefore, monitoring of this area under the NPDES General Permit is not recommended.</p> | | | |

NPDES STORM WATER GENERAL PERMIT
MONITORING SITES
LAND DISPOSAL UNITS/INCINERATORS/BIFS

| LOCATION | OPERATION | INDUSTRIAL ACTIVITY | SAMPLE |
|---|--------------|---------------------|--------|
| TA-35-85 | SWMU, 35-008 | SURFACE DISPOSAL | NO |
| <p>Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is a surface disposal area and is being addressed under the Laboratory's Environmental Restoration Project. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no significant material exposed to storm water and the type of material is "construction type" waste. Therefore, monitoring of this area under the NPDES General Permit is not recommended.</p> | | | |
| TA-36, EENIE | SWMU, 36-006 | SURFACE DISPOSAL | NO |
| <p>Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is a surface disposal area and is being addressed under the Laboratory's Environmental Restoration Project. Material disposed of consist of cables and similar residuals, solid wastes. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no significant material exposed to storm water and the type of material is "construction type" waste. Therefore, monitoring of this area under the NPDES General Permit is not recommended.</p> | | | |
| TA-40 | SWMU, 40-009 | LANDFILL | NO |
| <p>Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is listed as a landfill and is being addressed under the Laboratory's Environmental Restoration Project. Disposal material consists of noncombustible wastes from the burning of structures in a 1967 cleanup. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no significant material exposed to storm water and the type of material is "construction type" waste. Therefore, monitoring of this area under the NPDES General Permit is not recommended.</p> | | | |
| TA-40 | SWMU, 40-010 | LANDFILL | NO |
| <p>Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is a landfill and is being addressed under the Laboratory's Environmental Restoration Project. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no significant material exposed to storm water. Therefore, monitoring of this area under the NPDES General Permit is not recommended.</p> | | | |
| TA-49 | SWMU, 49-004 | LANDFILL | NO |
| <p>Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is listed as a landfill and is being addressed under the Laboratory's Environmental Restoration Project. Wastes include uncontaminated material from site cleanups in 1971 and 1984. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no significant material exposed to storm water, the unit has a stabilized cover and the type of material is "construction type" waste. Therefore, monitoring of this area under the NPDES General Permit is not recommended.</p> | | | |

NPDES STORM WATER GENERAL PERMIT
MONITORING SITES
LAND DISPOSAL UNITS/INCINERATORS/BIFS

| LOCATION | OPERATION | INDUSTRIAL ACTIVITY | SAMPLE |
|--|--|---------------------|---------|
| TA-49 MDA AB | SWMU, MATERIAL DISPOSAL AREA | LANDFILL | NO |
| Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is a Material Disposal Area and is being addressed under the Laboratory's Environmental Restoration Project. This site consists of a series of shafts with waste material from hydronuclear and related experiments. This site does not meet the land disposal unit definition. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no significant material exposed to storm water. Therefore, monitoring of this area under the NPDES General Permit is not recommended. | | | |
| TA-49 AREA 10 | SWMU, 49-005(a) | LANDFILL | NO |
| Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is listed as a landfill and is being addressed under the Laboratory's Environmental Restoration Project. The location of this small disposal area could not be found in field visits. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no significant material exposed to storm. Therefore, monitoring of this area under the NPDES General Permit is not recommended. | | | |
| TA-50 MDA C | SWMU, MATERIAL DISPOSAL AREA | LANDFILL | NO |
| Comments: This site is of one the SWMUs covered under a SWPP Plan developed in the summer of 1994. This site is a Material Disposal Area (MDA) and is being addressed under the Laboratory's Environmental Restoration Project. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no significant material exposed to storm water and the unit has a stabilized cover. Therefore, monitoring of this area under the NPDES General Permit is not recommended. | | | |
| TA-50 CAI | CONTROLLED AIR INCINERATOR | INCINERATOR | NO |
| Comments: The Controlled Air Incinerator (CAI) conducted 23 trial burns between 1976 and 1987. The CAI has not been in operation since 1987 and will continue to be inactive until a determination can be made as to the facility's future operation. An Alternative Certification has been provided for the 1993, 1994, and 1995 reporting periods. A sample was collected in 11/94 in anticipation of a trial burn in 1995. Based upon this information, field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no significant material exposed to storm water. Therefore, monitoring of this area under the NPDES General Permit is not recommended. | | | |
| TA-54 AREA G | SOLID RADIOACTIVE WASTE MANAGEMENT DISPOSAL AREA | LANDFILL | 6-Sites |
| Comments: This landfill has been sampled over the last year and a DMR submitted in 1994. Six flumes with automated sampling equipment are installed at the site. Approximately 3 acres of the 64 acre site is impervious cover, roofs and asphalt. Sampling was conducted for this area in 1996 and the DMR's submitted. | | | |

NPDES STORM WATER GENERAL PERMIT

MONITORING SITES

LAND DISPOSAL UNITS/INCINERATORS/BIFS

1/1/96

| LOCATION | OPERATION | INDUSTRIAL ACTIVITY | SAMPLE |
|--|---|---------------------|--------|
| TA-54 AREA H | SWMU, MATERIAL DISPOSAL AREA | LANDFILL | NO |
| <p>Comments: This site is listed as a landfill and is being addressed under the Laboratory's Environmental Restoration Project. This Material Disposal Area contains nine shafts used to dispose of wastes from 1961 to 1986. These shafts are inactive, capped and overlaid with 3 feet of soil. Based upon field investigations in 1995 and the annual site compliance evaluation, it was determined that there is no significant material exposed to storm. Therefore, monitoring of this area under the NPDES General Permit is not recommended.</p> | | | |
| TA-54 AREA J | ADMINISTRATIVE WASTE MANAGEMENT DISPOSAL AREA | LANDFILL | 1-Site |
| <p>Comments: The SWPP Plan for this facility showed grading plans that should not will produce a discharge. A site visit conducted in September 1994 indicates that all water cannot be contained on site. A storm water monitoring flume was installed at the discharge point that runoff exits the site . The site was sampled and a DMR submitted in 1996.</p> | | | |

Agenda for TA-15 Site Tour for NMED Bureau Personnel December 19, 1996

9:00 Meet at TA-41 Building 30
 9:20 Sign in at TA-15 Building 183
 9:40 Begin Tour

| PRS # | Location | Status | Workplan Page # | RFI Report Page #/ Date |
|--------------|---------------------------|-----------------------|------------------------|--------------------------------|
| 15-005(c) | HE Bunker | Active | 10-18 | 5-75 / May 22 |
| 15-004(a,d) | Firing Site C | NFA proposed | 8-12 | 4-14 / Oct 30 |
| 15-004(f) | Firing Site E-F | IA 1997, VCA 1999 | 7-1 | 4-23 / Oct 30 |
| 15-008(a) | Surface Disposal @ E-F | IA 1997, VCA 1999 | 7-20 | 4-23 / Oct 30 |
| 15-009(e) | Septic Tank @ E-F | VCA planned 1997 | 7-21 | 4-23 / Oct 30 |
| C-15-004 | Transformer @ E-F | NFA proposed | 7-21 | 4-23 / Oct 30 |
| 15-006(c) | Firing Site R-44 | IA 1997, VCA 1999 | SAP 5/25/95 | 5-94 / May 22 |
| 15-008(b) | Surface Disposal @ R-44 | IA 1997, VCA 1999 | 9-12 | 4-73 / Oct 30 |
| 15-006(d) | Firing Site R-45 | NFA proposed | SAP 5/25/95 | 5-94 / May 22 |
| 15-008(g) | Sandbags @ R-45 | NFA proposed | SAP 5/25/95 | 5-103 / May 22 |
| Lead Shot | Near PRS 15-007(c) @ R-45 | IA planned 1997 | 5-9 | |
| 15-002 | Burn Area | NFA proposed | 8-28 | 5-6 / May 22 |
| 15-007(a) | MDA N | Phase II, 1997 | 9-2 | 5-10 / May 22 |
| C-15-005 | Former Building @ MDA N | NFA proposed | 9-6 | 5-16 / May 22 |
| C-15-006 | Former Building @ MDA N | NFA proposed | 9-6 | 5-20 / May 22 |
| 15-010(a) | Septic tank @ MDA N | Phase II, 1997 | 5-6 | 5-79 / May 22 |
| 15-014(h) | Outfalls north of R-40 | NFA proposed | 10-22 | 5-90 / May 22 |
| 15-010(b) | Septic Tank NW of R-40 | NFA proposed | 10-25 | 5-86 / May 22 |
| Time TBD | Access Control Office | Exchange Badges | | |
| 15-004(b,c) | Firing Site A-B | VCA completed 9/96 | 8-5 | 4-3 / Oct 30 |
| 15-012(b) | Wash Area | VCA planned 1997 | 10-10 | 4-86 / Oct 30 |
| 15-009(j) | Septic Tank @ R-285 | Phase II, VCA planned | 10-14 | 4-94 / Oct 30 |
| 15-014(a) | Outfalls west of R-183 | Removed | 10-14 | 5-53 & 5-57 / May 22 |

Agenda for TA-15 Site Tour for NMED Bureau Personnel December 19, 1996

| PRS # | Location | Status | Workplan Page # | RFI Report Page #/ Date |
|-----------|------------------------------|---------------------|-----------------|----------------------------|
| 15-014(b) | Outfalls west of R-183 | Removed | 10-14 | 5-53 & 5-57 / May 22 |
| 15-009(f) | Septic Tank north of R-183 | NFA proposed | 10-18 | 5-64 / May 22 |
| 15-009(k) | Septic Tank north of R-183 | NFA proposed | 10-18 | 5-68 / May 22 |
| Time TBD | Lunch on your own | | | |
| Time TBD | Access Control Office | Exchange Badges | | |
| 15-005(b) | HE Bunker | Active | 10-18 | 5-72 / May 22 |
| 15-007(b) | MDA Z | VCA planned 1998 | 9-7 | 4-58 Oct 30 |
| 15-004(g) | Firing Site G | IA planned 1997 | 8-17 | 5-1 / May 22 |
| 15-001 | Storage Area @ G | Active | 8-17 | 5-1 / May 22 |
| 15-008(c) | Surface Disposal @ G | IA planned 1997 | 8-17 | 5-1 / May 22 |
| 15-009(i) | Septic Tank @ G | Active | 8-20 | 5-1 / May 22 |
| C-15-001 | Dirt pile @ G | 2 samples for iso U | 8-17 | 5-1 / May 22 |
| 15-004(h) | Firing Site H @ PHERMEX | Deferred | 8-23 | 5-1 / May 22 |
| C-15-011 | Former fuel tank @ PHERMEX | NFA proposed | 8-26 | 5-3 / May 22 |
| 15-010(c) | Septic tank @ PHERMEX | NFA proposed | 8-26 | 5-45 / May 22 |
| 15-014(d) | Outfalls @ PHERMEX | NFA proposed | 5-8 | 5-6 / May 22 |
| 15-014(e) | Outfalls @ PHERMEX | NFA proposed | 5-8 | 5-6 / May 22 |
| 15-014(l) | Drainline & Outfall @ PHERME | NFA proposed | 5-8 | 5-6 / May 22 |
| Time TBD | Access Control Office | Exchange Badges | | |
| 15-009(a) | Septic Tank @ the Hollow | Active | 5-3 | 5-24 / May 22 |
| 15-011(a) | Removed sump @ the Hollow | NFA proposed | 10-8 | 5-24 / May 22 |
| 15-011(b) | Drainline @ the Hollow | NFA proposed | 10-2 | 5-24 / May 22 |
| 15-011(c) | Outfall @ the Hollow | NFA proposed | 10-2 | 5-28 / May 22 |
| 15-014(g) | Outfall @ the Hollow | NFA proposed | 5-3 | 5-40 / May 22 |
| 15-014(i) | Outfall @ the Hollow | NFA proposed | 10-1 | 5-31 / May 22 |

**Agenda for TA-15 Site Tour for NMED Bureau Personnel
December 19, 1996**

| PRS # | Location | Status | Workplan Page # | RFI Report Page #/ Date |
|--------------|-------------------------------|----------------|----------------------------|------------------------------------|
| 15-014(j) | Outfall @ the Hollow | NFA proposed | 10-1 | 5-35 / May 22 |
| 15-014(k) | Drain @ the Hollow | NFA proposed | 10-2 | 5-45 / May 22 |
| C-15-007 | Oil stain @ the Hollow | Phase I, 1997 | 10-4 | 5-45 / May 22 |
| C-15-010 | Former fuel tank @ the Hollow | Phase II, 1997 | 10-8 | 5-45 / May 22 |
| 15-012(a) | Sump oil | Unlocated | 5-13 | 5-106 / May 22 |
| Time TBD | Access Control Office | Sign Out | | |
| Time TBD | Return to TA-41 | | | |

TA - 15

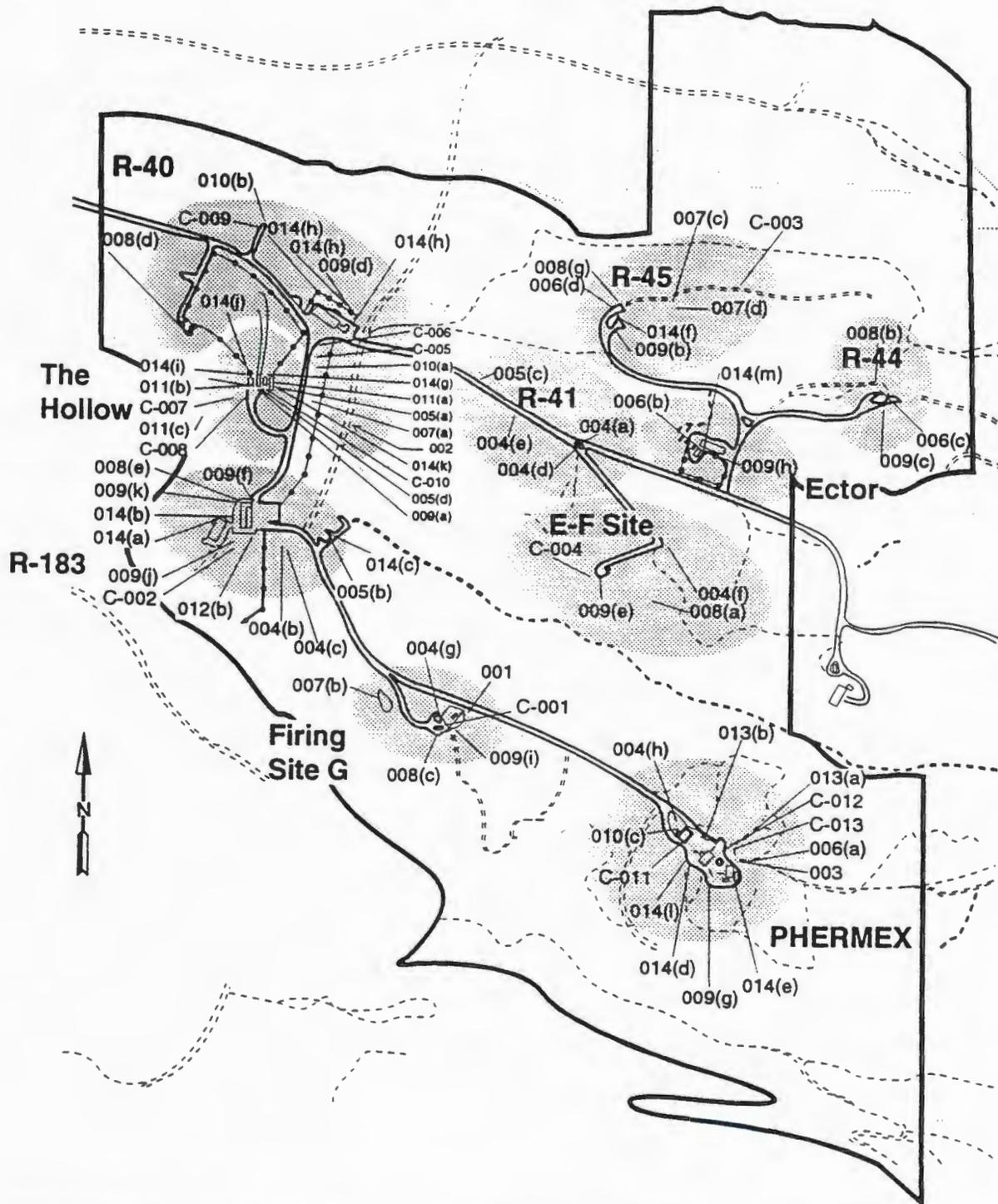


Figure EXEC-3 TA-15 site diagram showing Potential Release Sites (PRSS). Table EXEC-1 lists the PRSS by geographic location and gives the groupings into which the PRSS are placed.

**LOS ALAMOS NATIONAL LABORATORY
CONTAINER STORAGE AREA SUMMARY SHEET
PRS 15-005(c)**

Description:

Container Storage Area, PRS 15-005(c) is located approximately one fourth mile east of Bldg. R-40 (see attached map). It stores HE containers and is regulated under 40 CFR Part 262. This storage area is still actively used by DX Division.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Surface and subsurface soil samples were collected outside the building. All samples were field screened for the presence of radiation contamination, metals and HE. All four were submitted to a fixed laboratory for analysis. Samples were analyzed for uranium, beryllium and lead.

Cleanup:

Results of sample analysis did not indicate the presence of contamination above the SAL, thus request for NFA under criterion 5 has been requested.

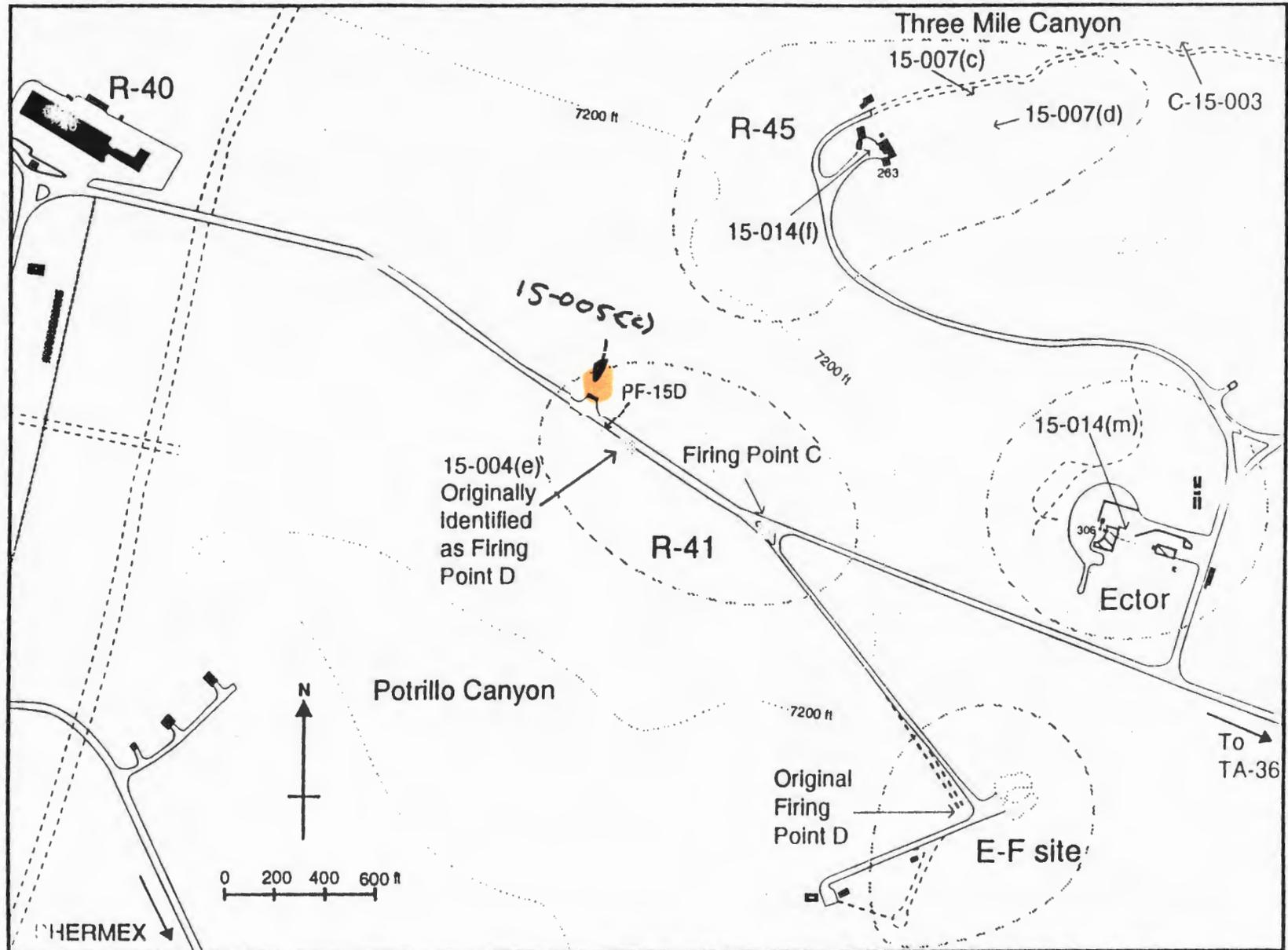


Figure 5.3-3 Site diagram for Firing Sites R-41 (Firing site C), Ector, E-F site, and R-45 with associated PRSs recommended for NFA.

**LOS ALAMOS NATIONAL LABORATORY
FIRING SITE C SUMMARY SHEET
PRS 15-004(a)&(d)**

Description:

Firing Site C, PRSs 15-004(a) and (d) were located at the "Y" of the road from the main TA-15 headquarters buildings to E-F Site and the road to TA-36. The firing platforms, 15-004(a) (not located) were concrete slabs at Firing Point C. They were removed in 1947. Firing Site C was used from 1945 - 1948.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Thirty nine surface and subsurface samples were collected as shown on the sampling grid figure 8.4-1 (attached). Samples were field screened for radiation contamination and metals, and eleven sent to a fixed laboratory for analysis. The HE spot test was used at every location prior to analysis. Results of the analytical data from the fixed laboratory indicated there was no contaminants of RCRA metals in the soil.

Cleanup:

Based on the laboratory analysis, no cleanup is required and NFA was requested.

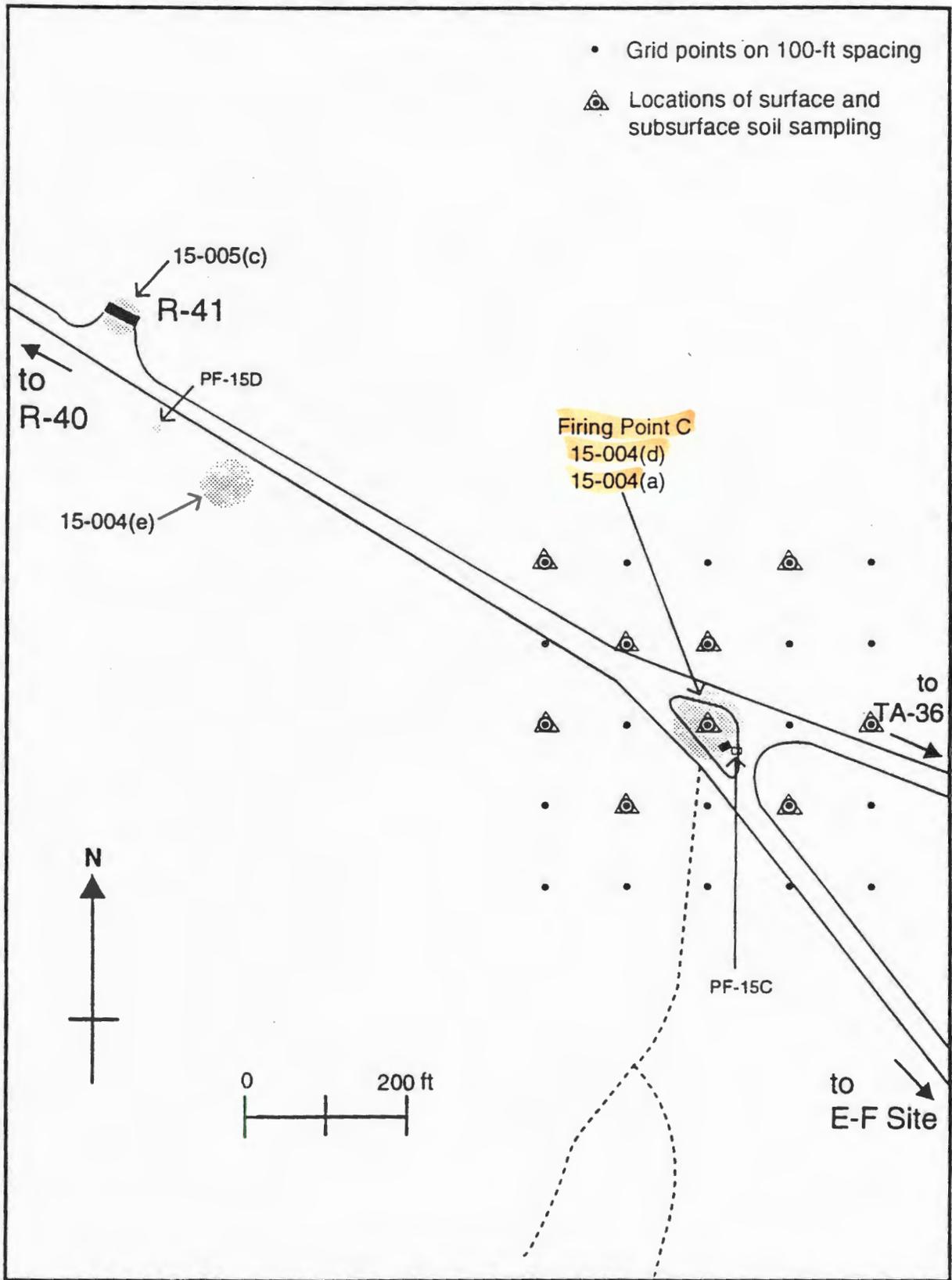


Figure 8.4-1 Site diagram and sampling grid for Firing Point C at TA-15.

**LOS ALAMOS NATIONAL LABORATORY
E-F FIRING SITE SUMMARY SHEET
PRS 15-004(f)**

Description:

Firing Site E-F is located approximately one half mile east of Bldg. R-40 within the secured boundaries of TA-15 (see attached map). This site was the most extensively used firing site at the laboratory, both in continuing length of use and quantities of uranium expended. The site was established in 1947 for tests using up to 2,500 lbs. of explosives and was used through 1973. The site was last used in 1981. Total area is approximately 60 acres.

Initially natural uranium was used in devices and approximately 43,000 kg was expended. After 1957 approximately 20,000 kg of depleted uranium (DU) was expended.

The Laboratory was surveyed by EG&G in 1982 using radiological detectors mounted on a helicopter. Results of this survey indicate that E-F Firing Site has the greatest amount of contamination.

Firing points E and F were originally depressions in the soil. As tests were conducted soil was either regraded to level the disturbed area or new gravel was brought in to fill the depressions. Nearby soil was mounded such that they reduced the potential for shrapnel flying in the direction of buildings.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Approximately 130 surface and subsurface samples were collected from around, within and through the mounds. Approximately 70 were sent to a fixed analytical lab. Results of analytical data indicate the presence of U, DU, Be above the SAL.

Cleanup:

A Voluntary Corrective Action (VCA) Plan will be prepared to describe methods to be employed for remediating the site. Because of the presence of visible pieces of DU and radioactive contaminated materials (shrapnel) on the surface, hand pick up of the area is occurring. This is not a final remedy, but one that is intended to remove obvious contaminated objects from the surface to assist in stopping the possible transport of contamination via water run off. A pilot study for cleanup will occur in 1998, and the total clean up of the area is being planned during FY99.

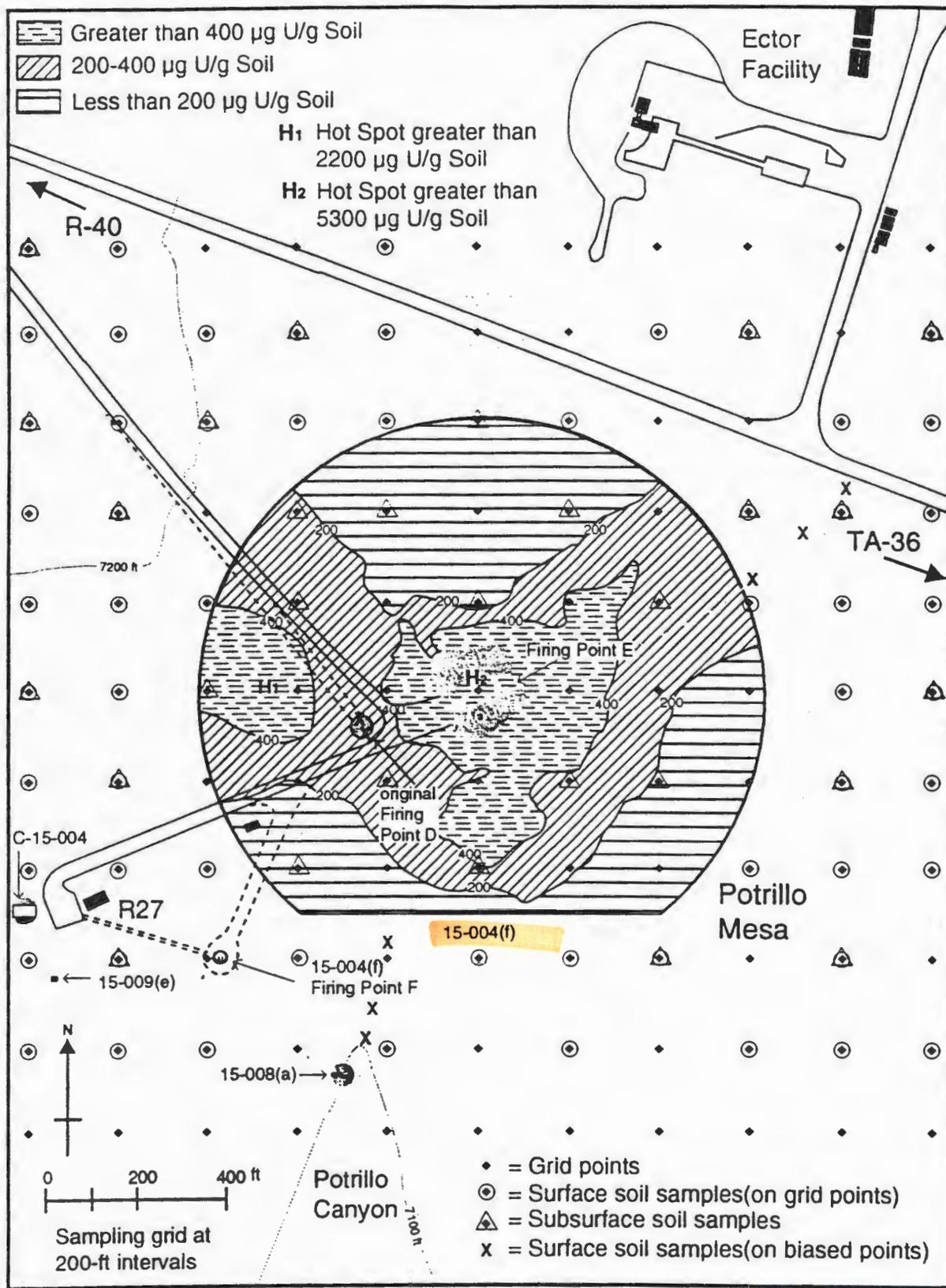


Figure 7.3-12 Site diagram for Firing Site E-F with sampling plan. The contour map of uranium concentrations is taken from Table I (White et al. 1980, 0771).



Mounds @ E-E Firing Site.

**LOS ALAMOS NATIONAL LABORATORY
SURFACE DISPOSAL AREA @ E-F FIRING SITE SUMMARY SHEET
PRS 15-008(a)**

Description:

Surface Disposal Areas, PRS 15-008(a) are located approximately 450 feet south and 450 feet east of Bldg. R-27 on a canyon edge where debris from E-F Firing Site was deposited (see attached map). The debris consists of metal pieces, rocks, concrete, wire, pieces of plastic, and other electrical accessories. The debris is contaminated with small amounts of uranium, beryllium and lead (see photo).

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Three samples to tuff were collected at each disposal area. Results of these samples indicate uranium and lead contamination.

Cleanup:

It is proposed that an Interim Action to pick up the visible pieces of debris be conducted in FY97 with a full VCA planned for FY99 to coincide with the VCA to clean up E-F Firing Site.

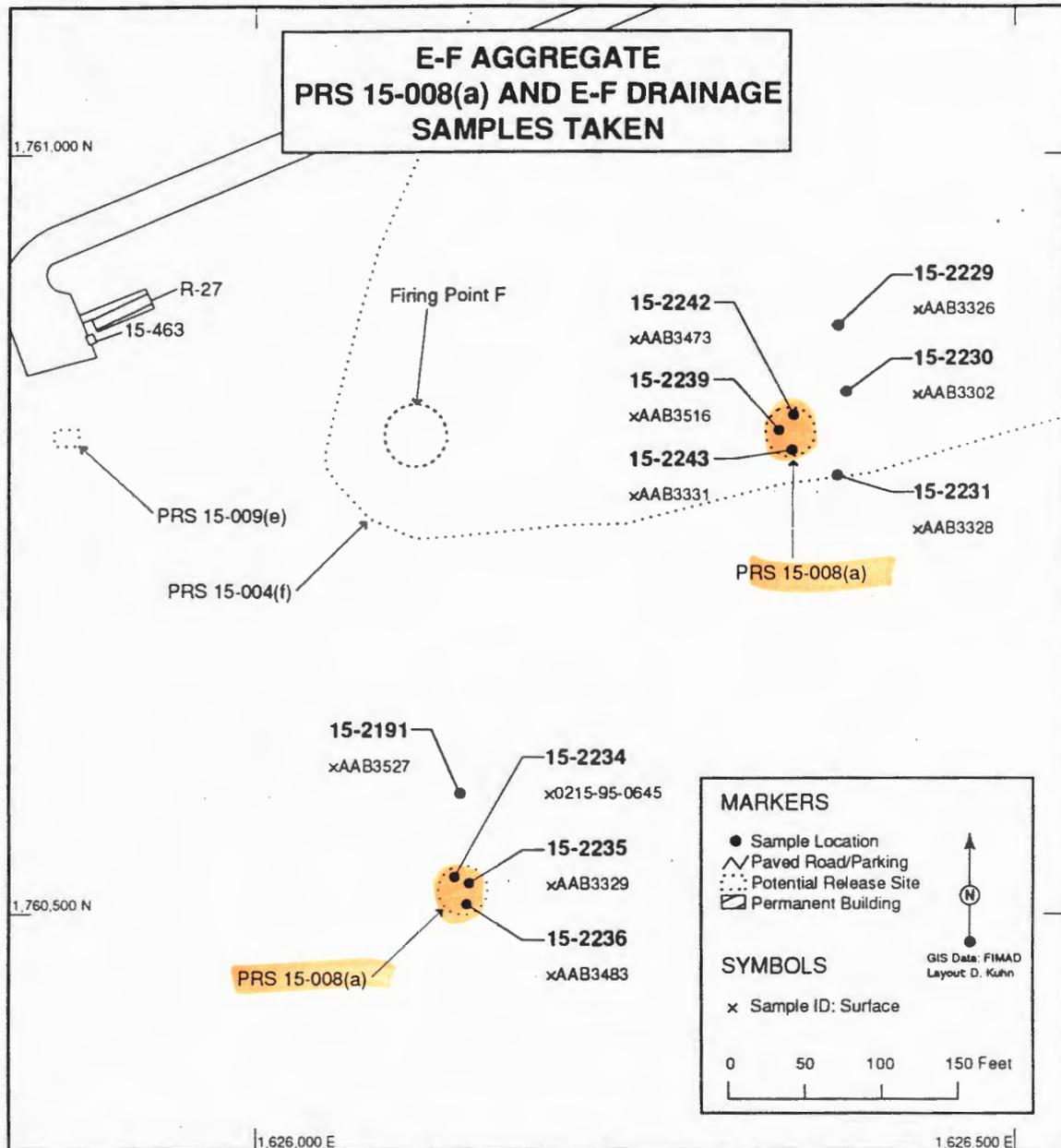
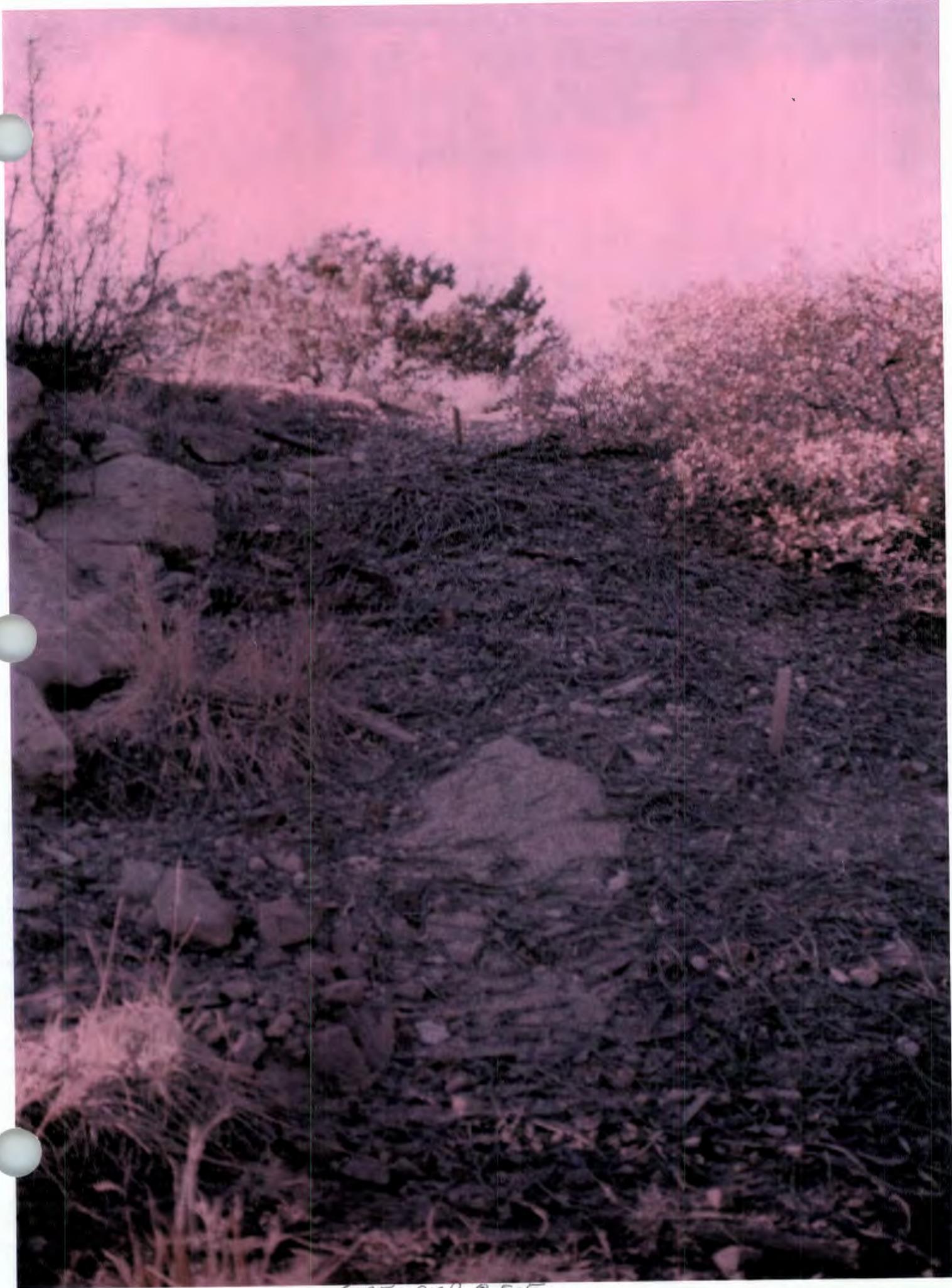


Figure 1-6. Sample locations at PRS 15-008(a)



SURF. OISP, © E-F

**LOS ALAMOS NATIONAL LABORATORY
SEPTIC SYSTEM SUMMARY SHEET
PRS 15-009(e)**

Description:

PRS 15-009(e) is a septic system located within the secured boundaries of TA-15. It is approximately 175 feet south-southwest of building TA-15-27. (See attached map and photo). The septic tank was constructed in 1947 with a capacity of 1200 gallons. It served building TA-15-27.

Since TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Two samples were collected from within the septic tank. All samples were field screened for radiation. The samples were sent to a fixed laboratory for analysis. Samples were analyzed for gamma spectroscopy, VOC's, SVOC's, TAL metals and HE. Results of the analytical data from the fixed laboratory indicate the presence of lead and uranium above the SAL.

Cleanup:

A Voluntary Corrective Action (VCA) plan will be prepared to describe the process to be followed in the removal of approximately 10 drums of waste water and sludge, removing the opportunity for leakage from the tank. Confirmatory sampling will be conducted to verify total cleanup of the contamination was achieved. Cleanup is proposed to be accomplished during FY97.

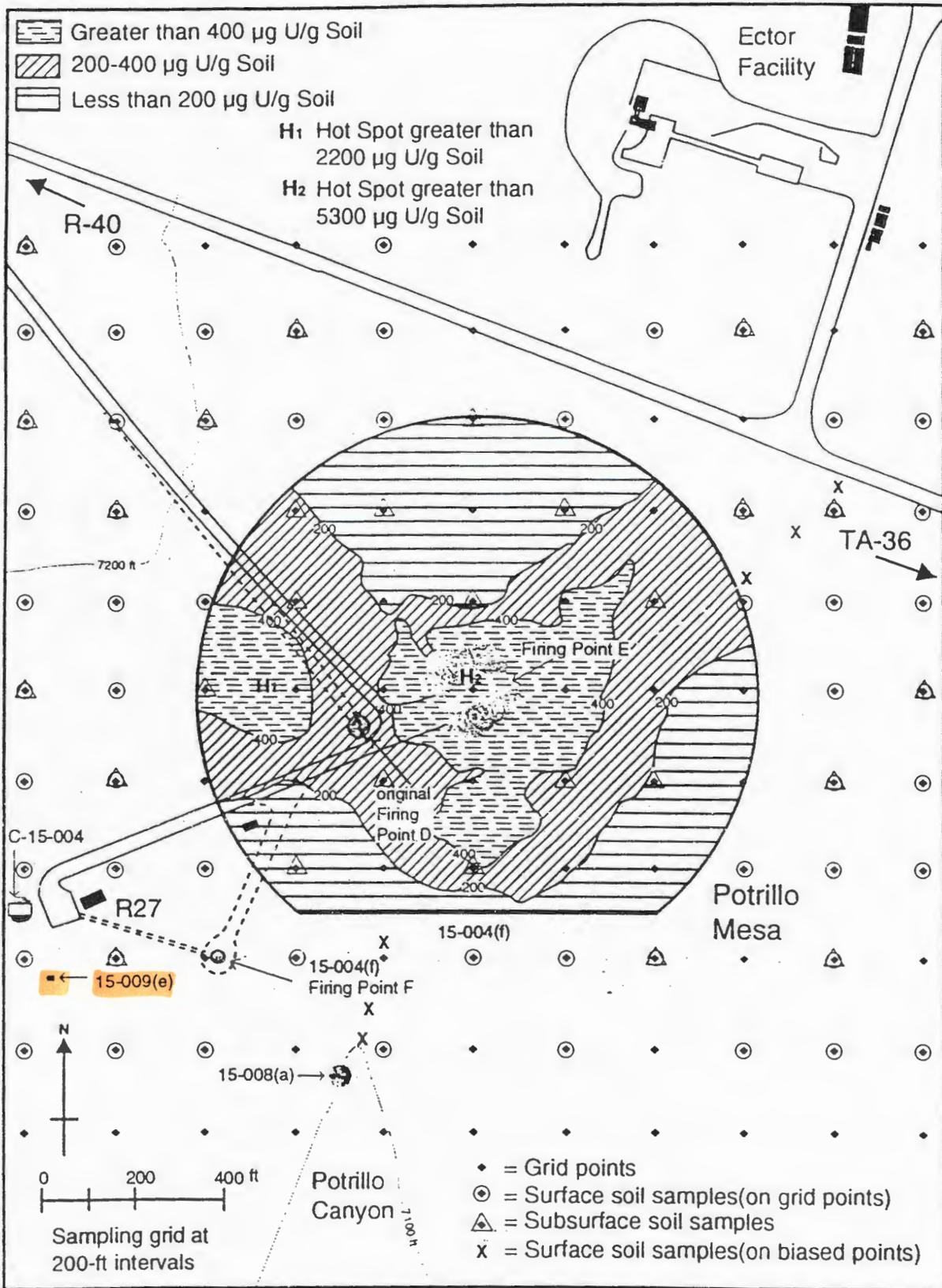


Figure 7.3-12 Site diagram for Firing Site E-F with sampling plan. The contour map of uranium concentrations is taken from Table I (White et al. 1980, 0771).



Septic TANK @ E-F

**LOS ALAMOS NATIONAL LABORATORY
TRANSFORMER STATION SUMMARY SHEET
PRS C-15-004**

Description:

Transformer Station, PRS C-15-004, is located approximately 20 to 30 feet southwest of Bldg. R-27, the control room of E-F Firing Site (see attached photo and map). Two transformers (30 gal. and 18 gal. capacity) were located on a wooden platform attached to the utility poles at 10 feet above ground level. The transformers contained oil contaminated with PCBs. The transformers were removed in 1989.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Two surface samples were collected and analyzed for PCBs. Results indicated no contamination.

Cleanup:

Based on the laboratory analysis, no cleanup is required and NFA was requested.

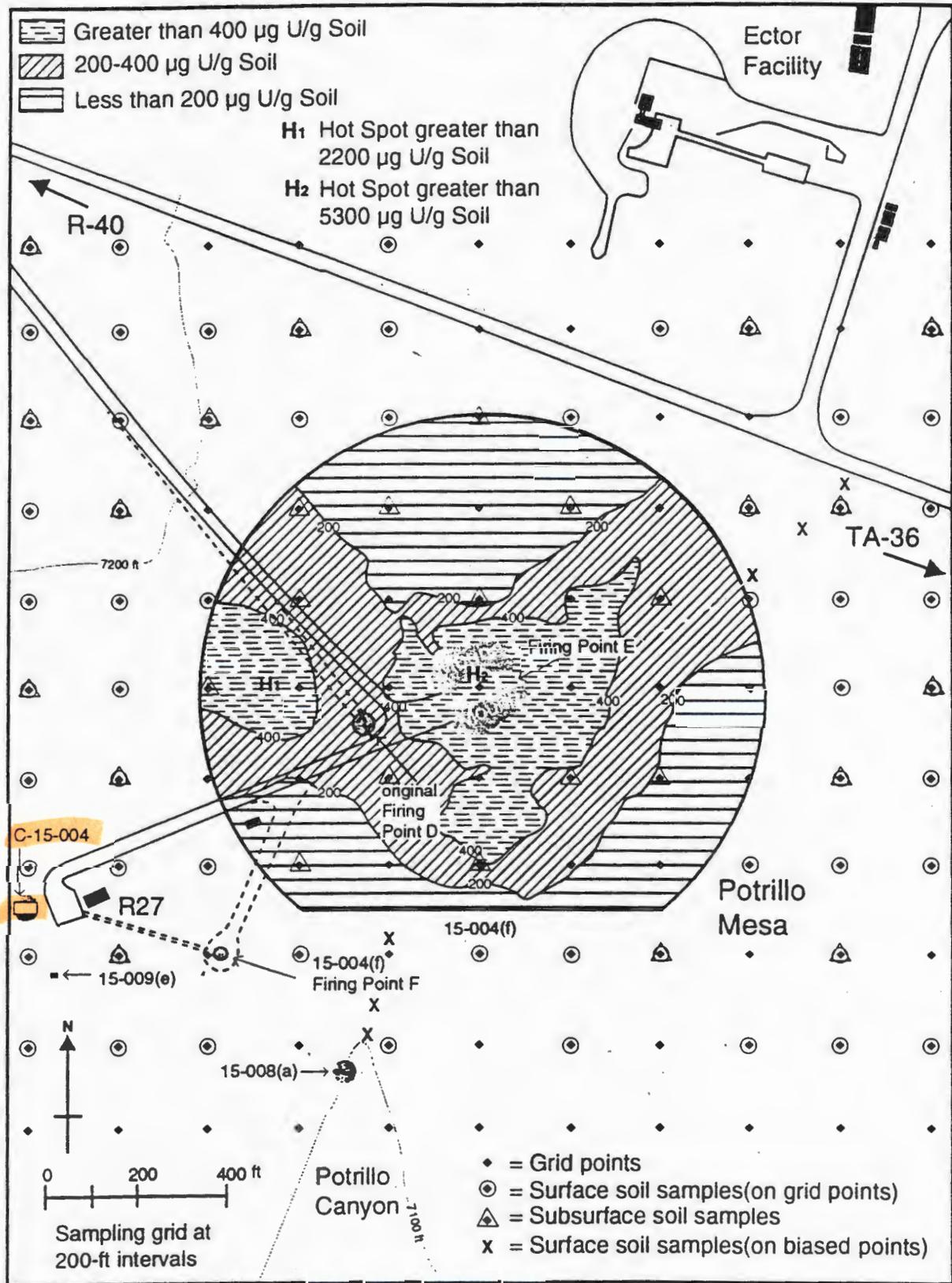


Figure 7.3-12 Site diagram for Firing Site E-F with sampling plan. The contour map of uranium concentrations is taken from Table I (White et al. 1980, 0771).



TRANSFORMER KITE @ E-F

**LOS ALAMOS NATIONAL LABORATORY
FIRING SITE R-44, SUMMARY SHEET
PRS 15-006(c)**

Description:

Firing Site R-44, PRS 15-006(c) is located approximately one half mile NE of Bldg. R-40 (see attached map). It was built in 1951 and used until 1992. Quantities of uranium (U) (mostly DU), beryllium (Br) and lead (Pb) were expended at this site. Visible pieces of DU and lead still remain on the ground surface of this site.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Approximately 100 surface and subsurface samples were collected, of which 40 were sent to an analytical lab. Based on analytical results of samples taken and the screening assessment, the concentrations of U, Be, Pb, Ar and RDX appear to be above their PRGs, so they will be retained as COPCs.

Cleanup:

Based on the analytical results, an Interim Action to pick up visible pieces of contaminated debris and DU will be conducted in FY97. A full scale VCA will be conducted in FY99.

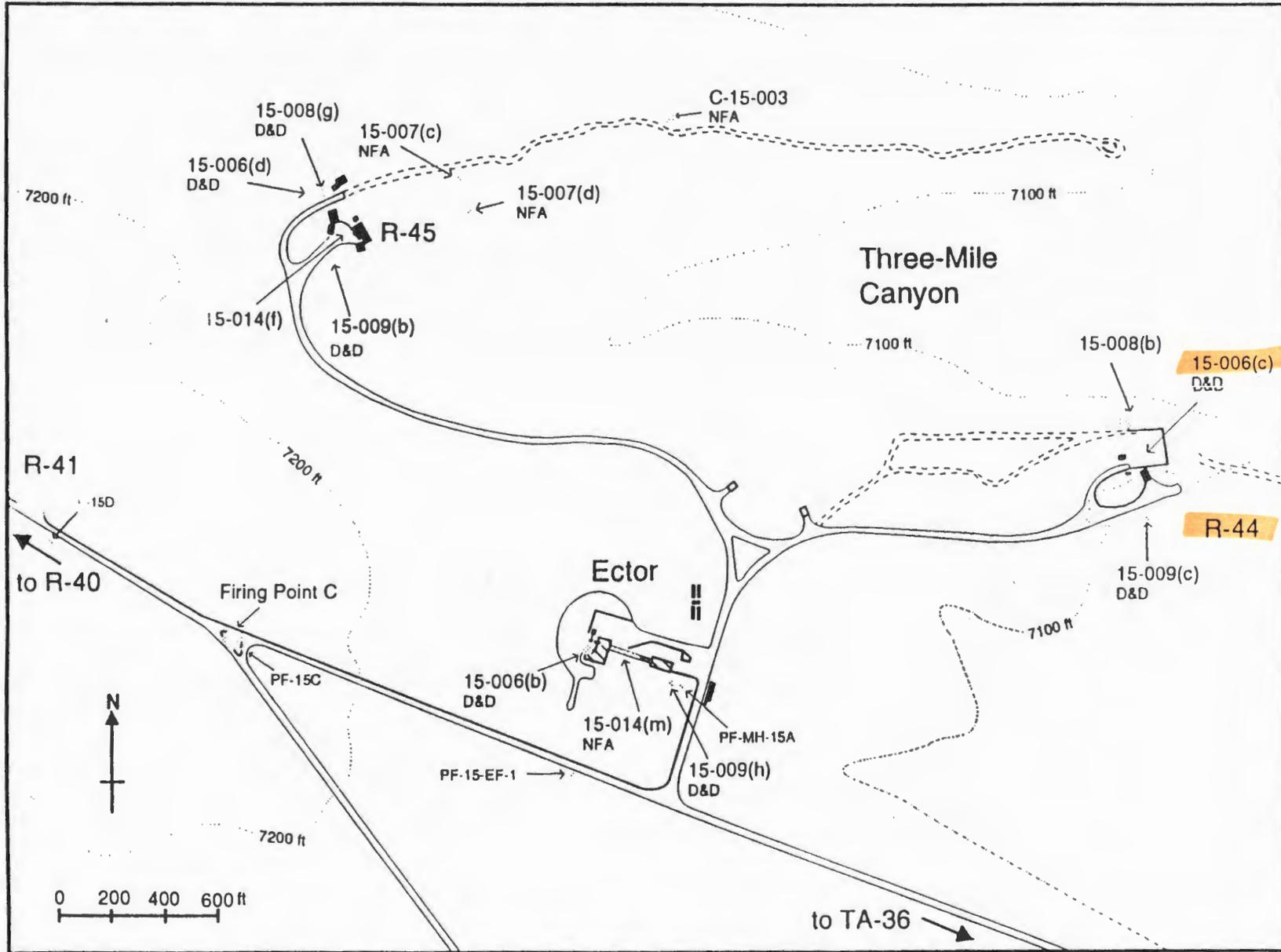


Figure 6.3-1 Site diagram for Firing Sites Ector, R-41, R-44, and R-45 showing PRSs recommended for D&D and NFA and and SWMU 15-008(b).



T-44 Firing site

**LOS ALAMOS NATIONAL LABORATORY
SURFACE DISPOSAL AREA @ R-44 SUMMARY SHEET
PRS 15-008(b)**

Description:

Surface Disposal Area, PRS 15-008(b) is located approximately 150 feet north of R-44 Firing Site [PRS 15-006(c)] (see attached map and photo). The disposal area was created on the north side of the site when remnants and debris from tests were pushed over the edge of the canyon. COPCs of the site include wire (copper) pieces of metal such as lead and beryllium, residual explosives and radioactive substances such as uranium. A total of sixteen samples were collected for analysis.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Surface and subsurface soil samples were collected and sent to a mobile radioanalysis van for radioactivity, chemistry van for XRF and LIBs for determining beryllium. Thirteen samples were submitted to an offsite laboratory for analysis based upon the field screening mentioned above. Also, all samples were field screened for the presence of HE using the HE spot test. Further sampling, screening, surveying, etc. down the drainage areas of this site was performed in 1995. Results indicate more extensive contamination of Pb, U and Be than anticipated.

Cleanup:

Based on the laboratory analytical results, the extensive contamination, and the visible surface contaminated debris, an IA is planned for FY97 with a full VCA planned for FY99.

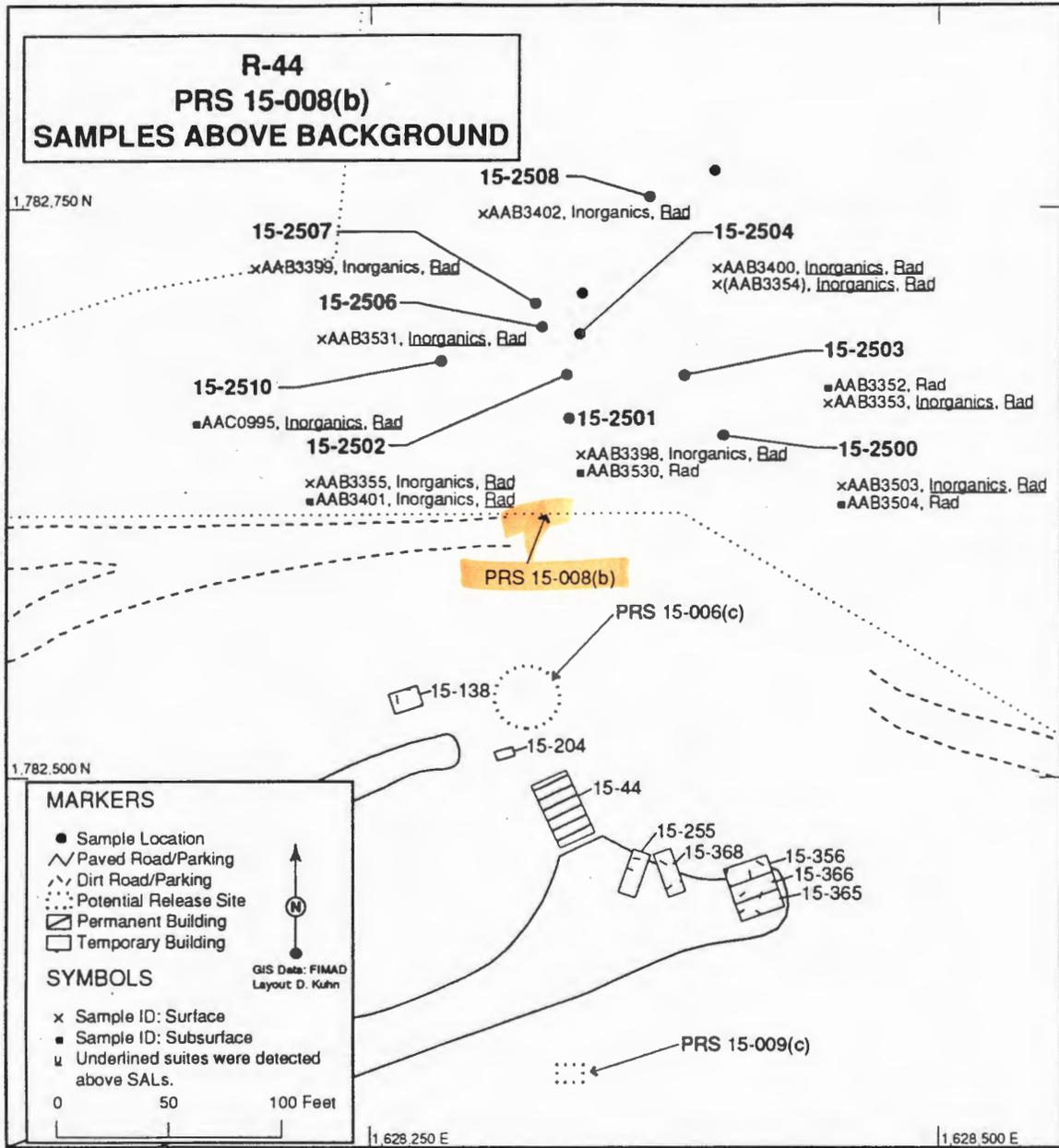


Figure 4-10. Locations of samples above background



SURFACE DISPOSAL @ R-44

**LOS ALAMOS NATIONAL LABORATORY
FIRING SITE R-45 SUMMARY SHEET
PRS 15-006(d)**

Description:

Firing Site R-45, PRS 15-006(d) is located approximately one half mile east of Bldg. R-40 (see attached map). This firing site was built in 1951 and used until 1992. This site was used only for small quantities of explosives, and used purely for science experiments which were optical diagnostics and shock wave phenomena.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Sixty seven soil samples were collected of which twenty four were submitted to an offsite fixed laboratory for analysis. Radiological surveys were conducted before sampling was conducted to assist in characterizing the PRS. Also field screening for radiological purposes and HE spot testes were conducted at each sample location before starting any intrusive activities. Results of analytical data did not indicate the presence of COPCs.

Cleanup:

A No Further Action (NFA) is proposed for this PRS because the analytical results confirm the absence of contaminants.

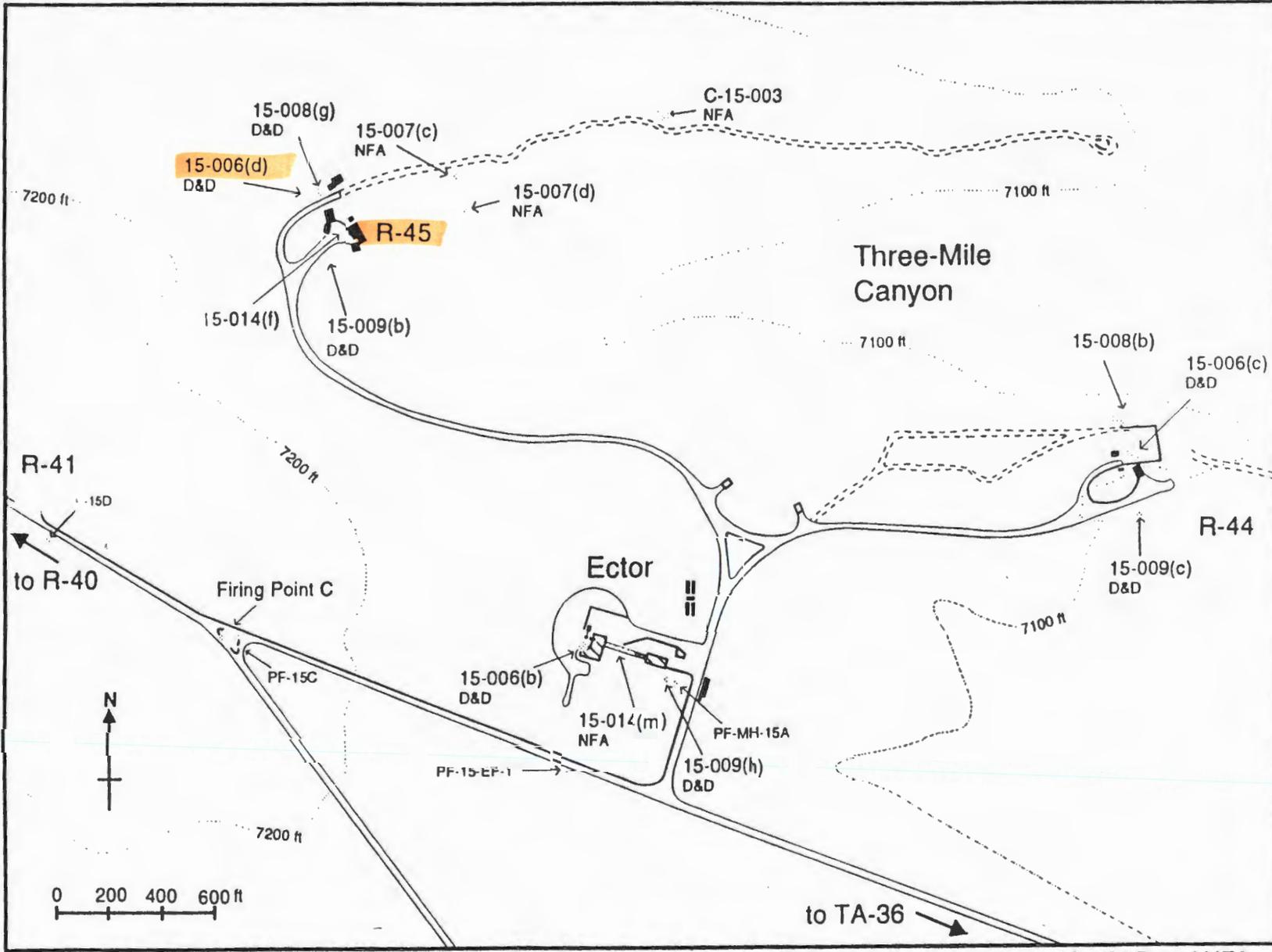


Figure 6.3-1 Site diagram for Firing Sites Ector, R-41, R-44, and R-45 showing PRSRs recommended for D&D and NFA and and SWMU 15-008(b).



T-45 FIRING Site

**LOS ALAMOS NATIONAL LABORATORY
SANDBAGS @ R-45 SUMMARY SHEET
PRS 15-008(g)**

Description:

Sandbags at R-45, PRS 15-008(g) are located just north of the asphalt road at the site (see attached map). The sandbags were used as shielding during explosive tests and may have fragments from the explosives.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

One sample was collected as submitted to an offsite laboratory for analysis. Radiological screening and an HE spot test was conducted at the sample location prior to collecting the sample. XRF analysis was conducted at the field trailer. The sample was analyzed for total uranium, TAL metals and HE.

Cleanup:

Based on the analytical results this PRS has been proposed for NFA under criterion 5.

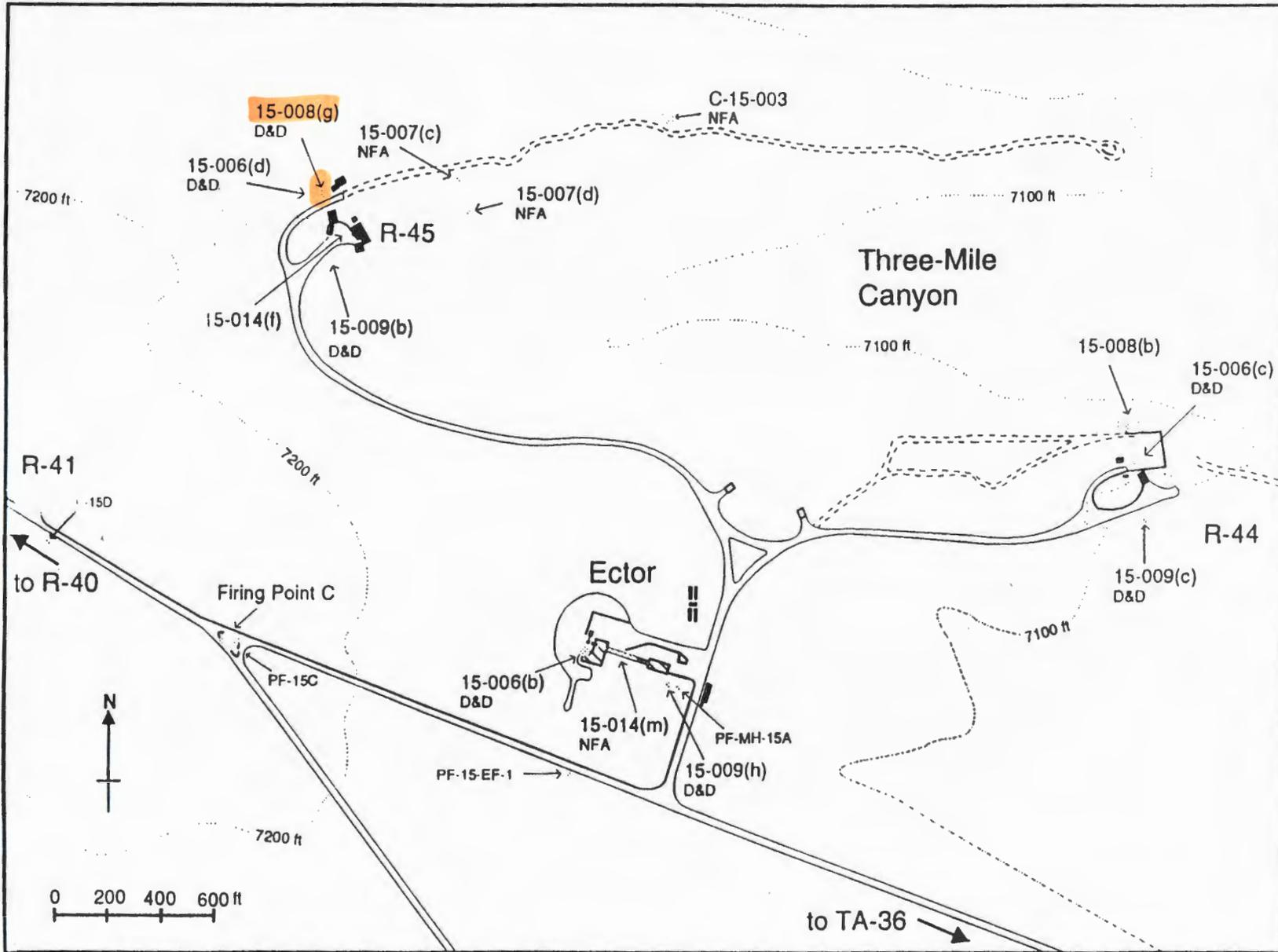


Figure 6.3-1 Site diagram for Firing Sites Ector, R-41, R-44, and R-45 showing PRSs recommended for D&D and NFA and and SWMU 15-008(b).

Field Unit 2 TR 15
PRS 15-000(g)
Sample Location 15-3136
Date 0215-95-0624
0-6 in
25 Aug 1995

Sand bag @
R-45
#190

**LOS ALAMOS NATIONAL LABORATORY
LEAD SHOT NEAR PRS 15-007(c) SUMMARY SHEET**

Description:

This lead shot is located in the R-45 Firing Site boundary (see attached map). It is in the same location of PRS 15-007(c) shaft, but not a part of the PRS. Lead shot is visible on the concrete pad (see photo) and on the soil by the concrete pad.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

No sampling of the area has occurred, however it is evident that lead shot is on the surface and needs to be cleaned up.

Cleanup:

An Interim Action (IA) is planned for FY97 to pickup the visible pieces of lead shot from the concrete pad. Also soil will be removed from around the concrete pad to clean up any lead shot that may have spilled off the pad. The XRF will be utilized to assist in our cleanup effort. Confirmatory sampling will be conducted to ensure total cleanup is achieved.

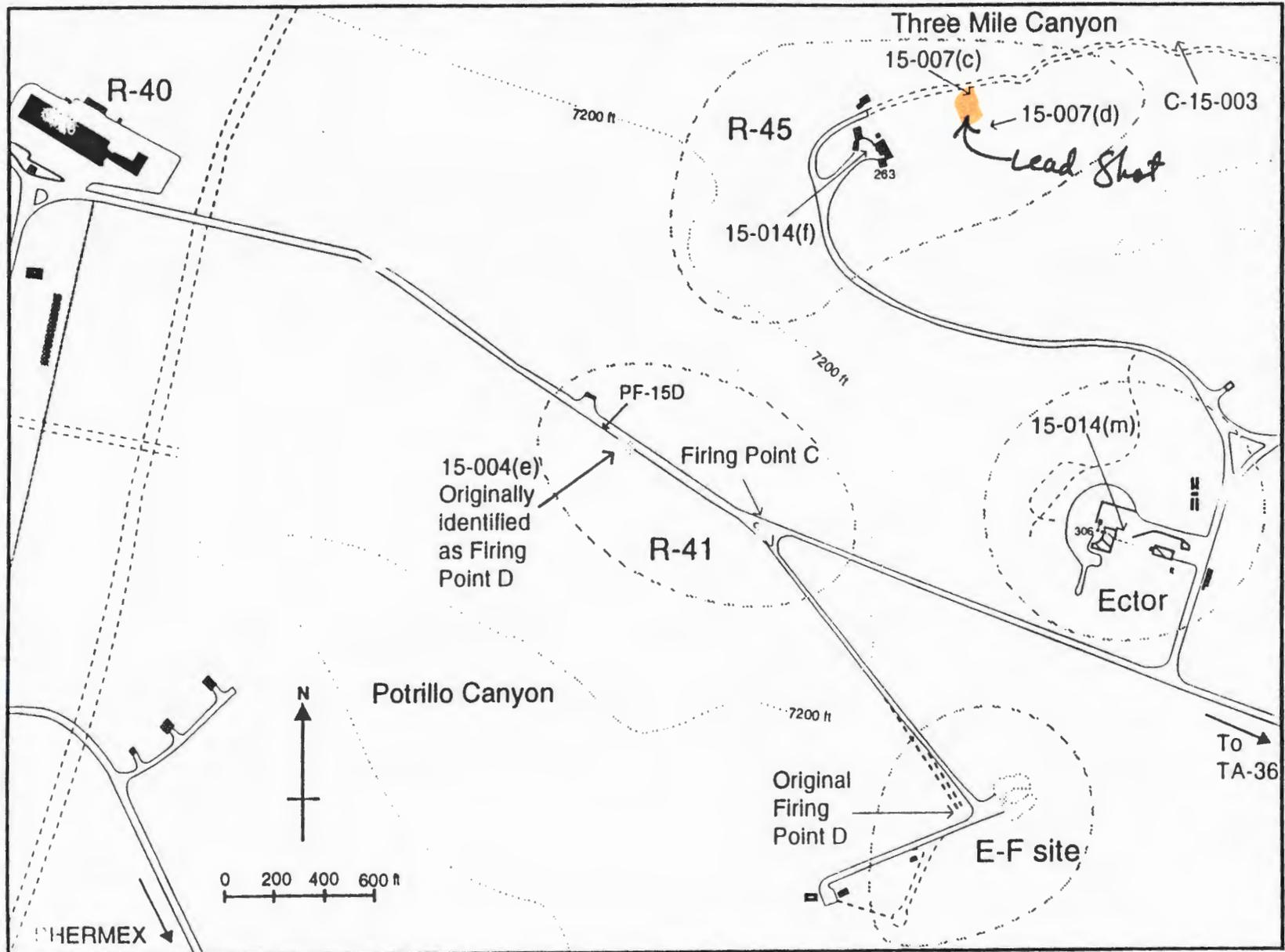


Figure 5.3-3 Site diagram for Firing Sites R-41 (Firing site C), Ector, E-F site, and R-45 with associated PRSs recommended for NFA.



LEAD SHOT @ P-45

**LOS ALAMOS NATIONAL LABORATORY
BURN PIT SUMMARY SHEET
PRS 15-002**

Description:

PRS 15-002 is an unnamed burn pit with undocumented use. It is located within the security boundaries of TA-15 and is positioned approximately 900 feet southwest of TA-15-7 control room and across the road from TA-15-20. (See attached map and photo). A berm of soil about three feet high surrounds the pit on three sides with the open portion facing east. The condition of the bermed area and road are overgrown with vegetation, but still visible. The aerial radiological survey conducted in 1982 by EG&G/Energy Measurements did not detect radionuclides at levels above background. If uranium was burned at this location, the quantities were small and current environmental levels are probably below the screening action levels.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

The area was screened for radiation contamination and the presence of HE before sampling occurred. Surface and subsurface samples were collected. They were collected from the bottom center of the pit and along the inside of the berm. Samples were submitted to a fixed laboratory for analysis. Samples were analyzed for total uranium, TAL metals, VOCs and SVOCs. Results of the analytical data from the fixed laboratory indicate we have nothing above the SAL and no concerns.

Cleanup:

A No Further Action (NFA) is proposed for this PRS because the analytical results confirm the absence of contaminants.

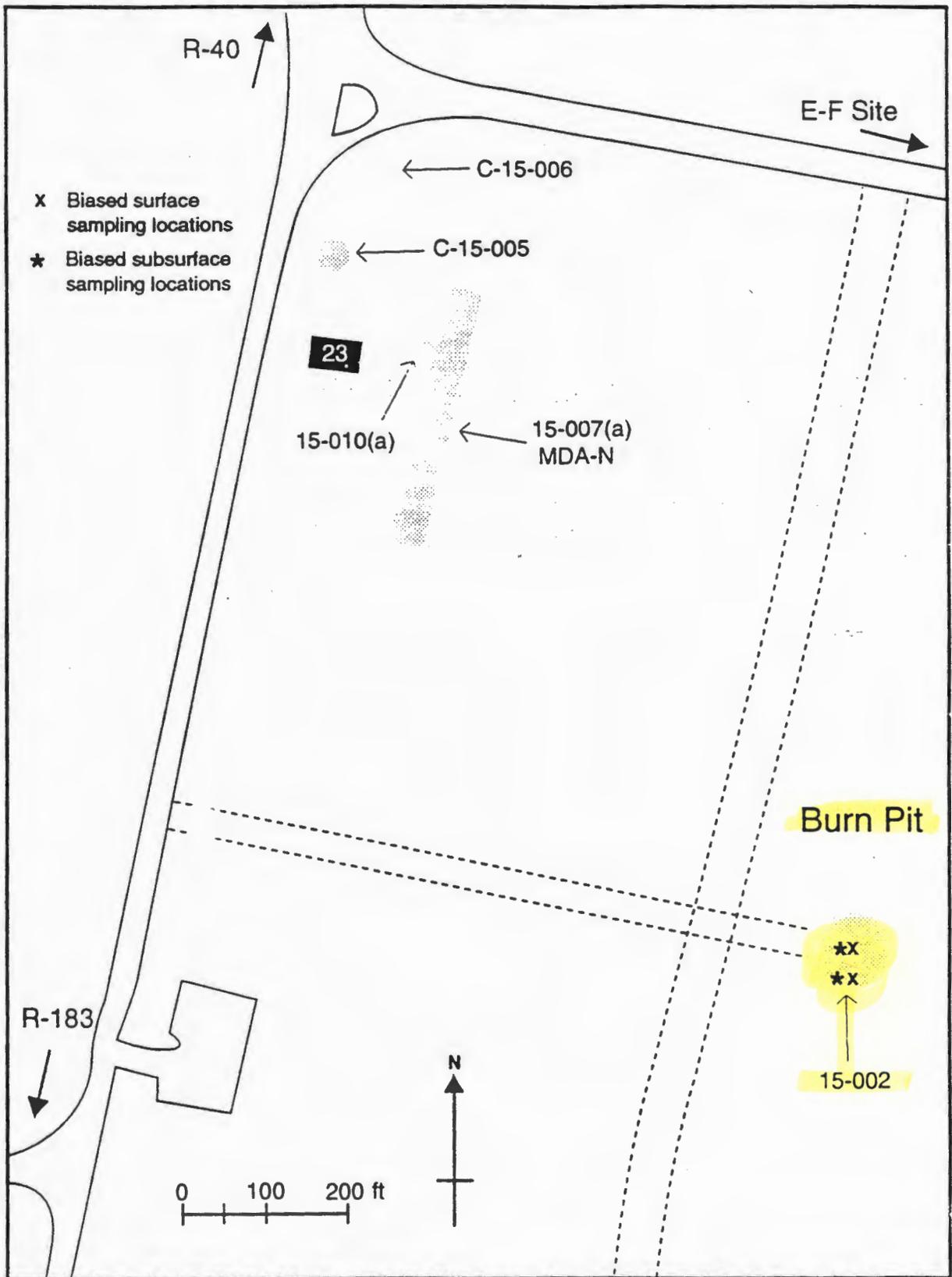
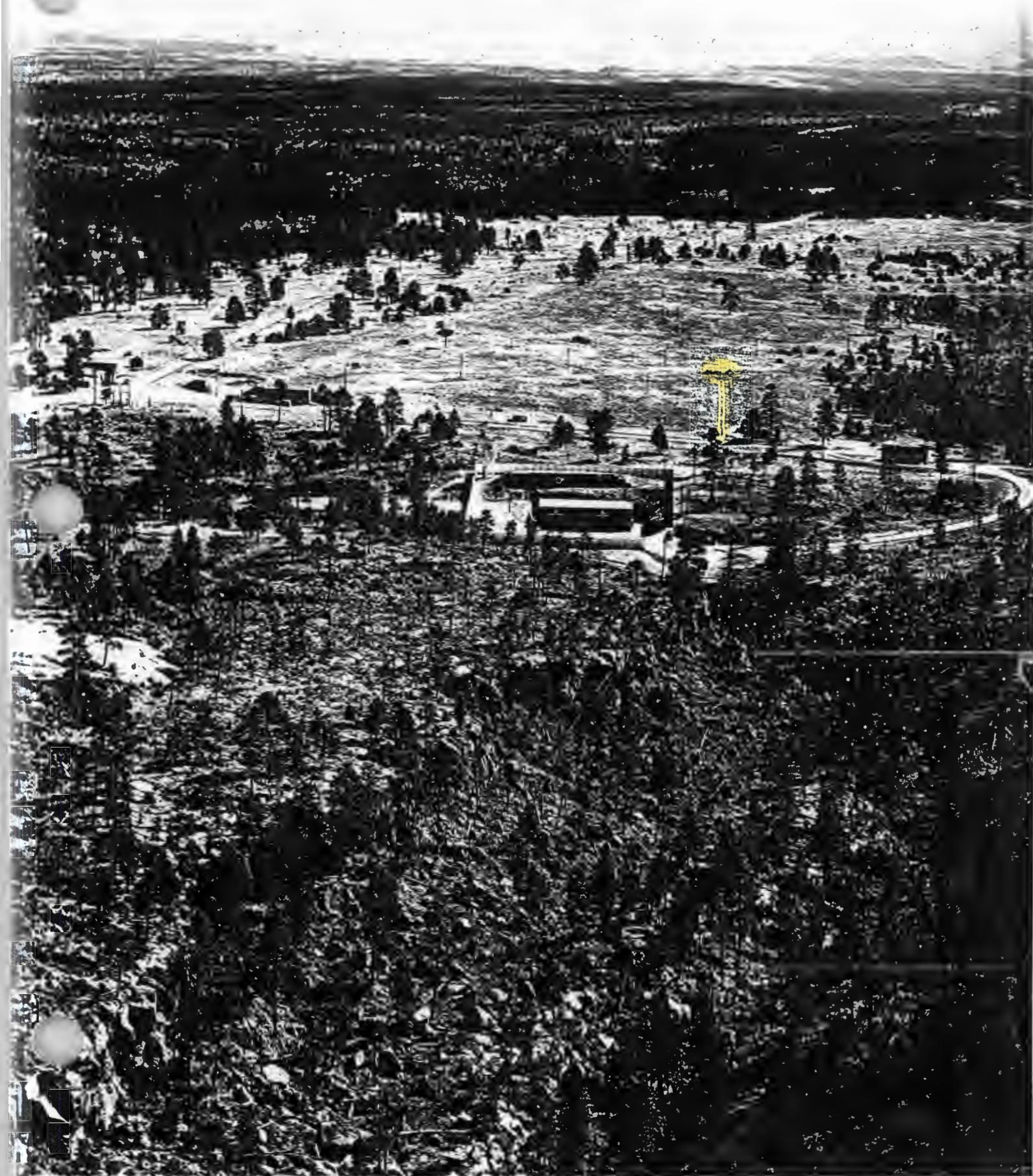


Figure 8.7-1 Site diagram including the burn pit, and MDA-N; also shown are the sampling points at the burn pit.

BURN PIT

15-002





LOS ALAMOS NATIONAL LABORATORY
MDA-N SUMMARY SHEET
PRS 15-007(a)

Description:

Material Disposal Area (MDA-N), PRS 15-007(a) is located south of Bldg. R-40 and at the intersection of the road to Firing Site E-F and the road leading to Bldg. R-183 (see attached map). It is a pit that contains remnants of several structures from R-Site, of which may have been exposed to chemical or explosive contamination. MDA-N was opened in 1962 and closed in 1965. MDA-N is approximately 100 feet wide by 300 feet long.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

A geophysical survey was conducted in 1995 which was inconclusive as to the location of the MDA. A second survey was conducted in 1996 using new geophysical methods. Results of the second survey indicate the presence of objects below the surface that may require further investigation. Twenty two samples were collected, of these thirteen were submitted to an offsite laboratory. They were analyzed for isotopic thorium, total uranium, TAL metals, VOCs and SVOCs. HE spot tests and radiological screening were conducted before each sample was collected. No positive HE results were obtained and no elevated readings were reported from the radiological surveys.

Cleanup:

Although Phase I samples did not indicate the presence of COPCs, we believe further characterization of the landfill is warranted. Phase II investigation is planned for FY97, to better characterize the MDA.

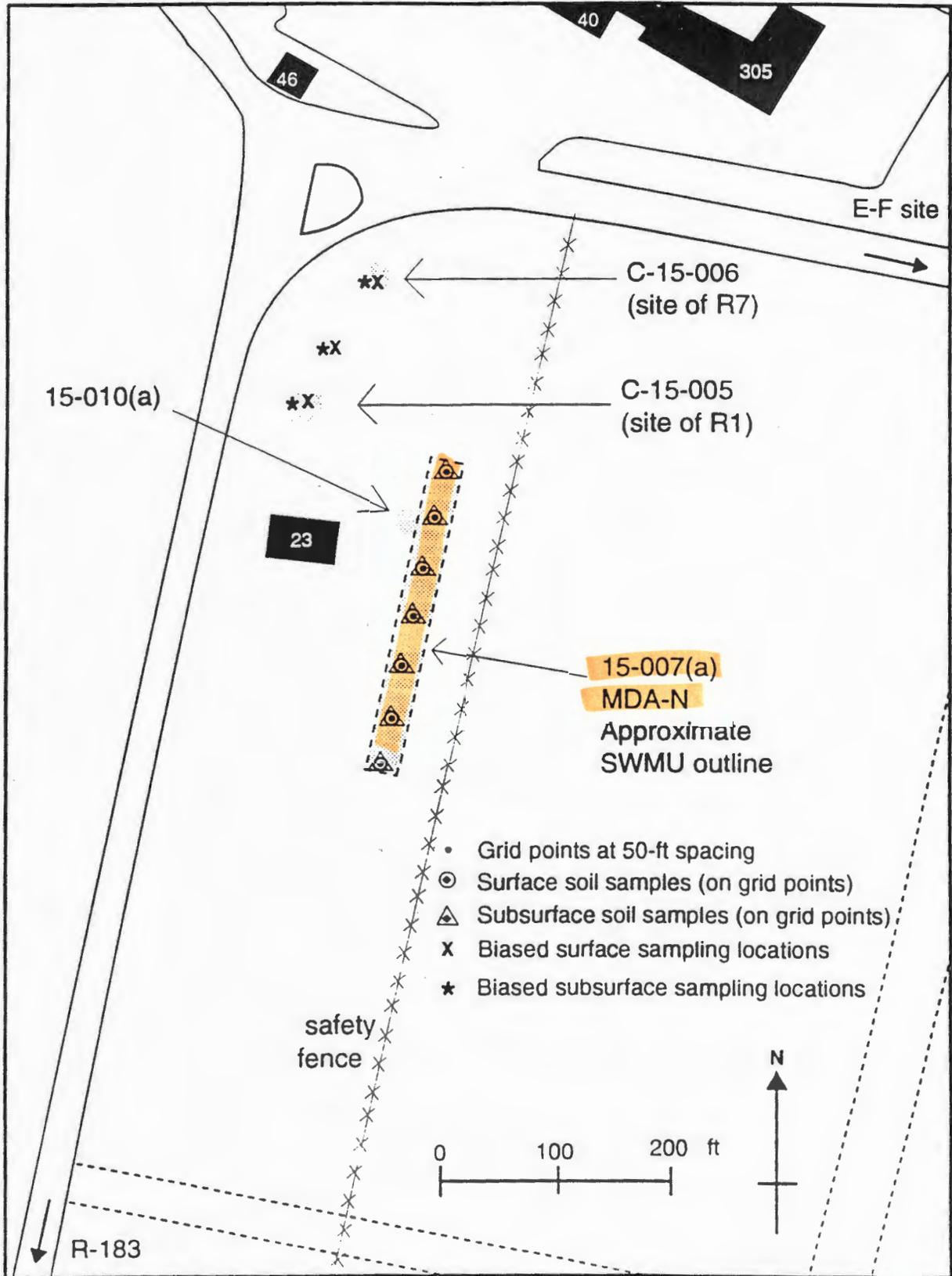


Figure 9.1-1 Sampling plan for MDA-N, C-15-005, and C-15-006.



MDA-N

**LOS ALAMOS NATIONAL LABORATORY
FORMER BUILDING SUMMARY SHEET
PRS C-15-005**

Description:

Former building R-1, PRS C-15-005 (see attached map) was removed around 1962. The building was used as a shop/laboratory with little knowledge of actual activities conducted in the building. Its location was approximately 50 feet north of Bldg. R-23 and adjacent to R-Site road. Small spills of mercury and thorium contamination occurred in this building, and were subsequently cleaned up. This location is within the MDA N PRS.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Four soil samples were collected from two locations where the building was sited. The samples were field screened for radiation contamination and lead, and HE spot tested. Three of the four samples were submitted to an offsite laboratory for analysis. Results of the analytical data from the fixed laboratory indicate we have nothing above the SAL and no concerns.

Cleanup:

A No Further Action (NFA) under criterion 5 is proposed for this PRS because the analytical results confirm the absence of COPCs.

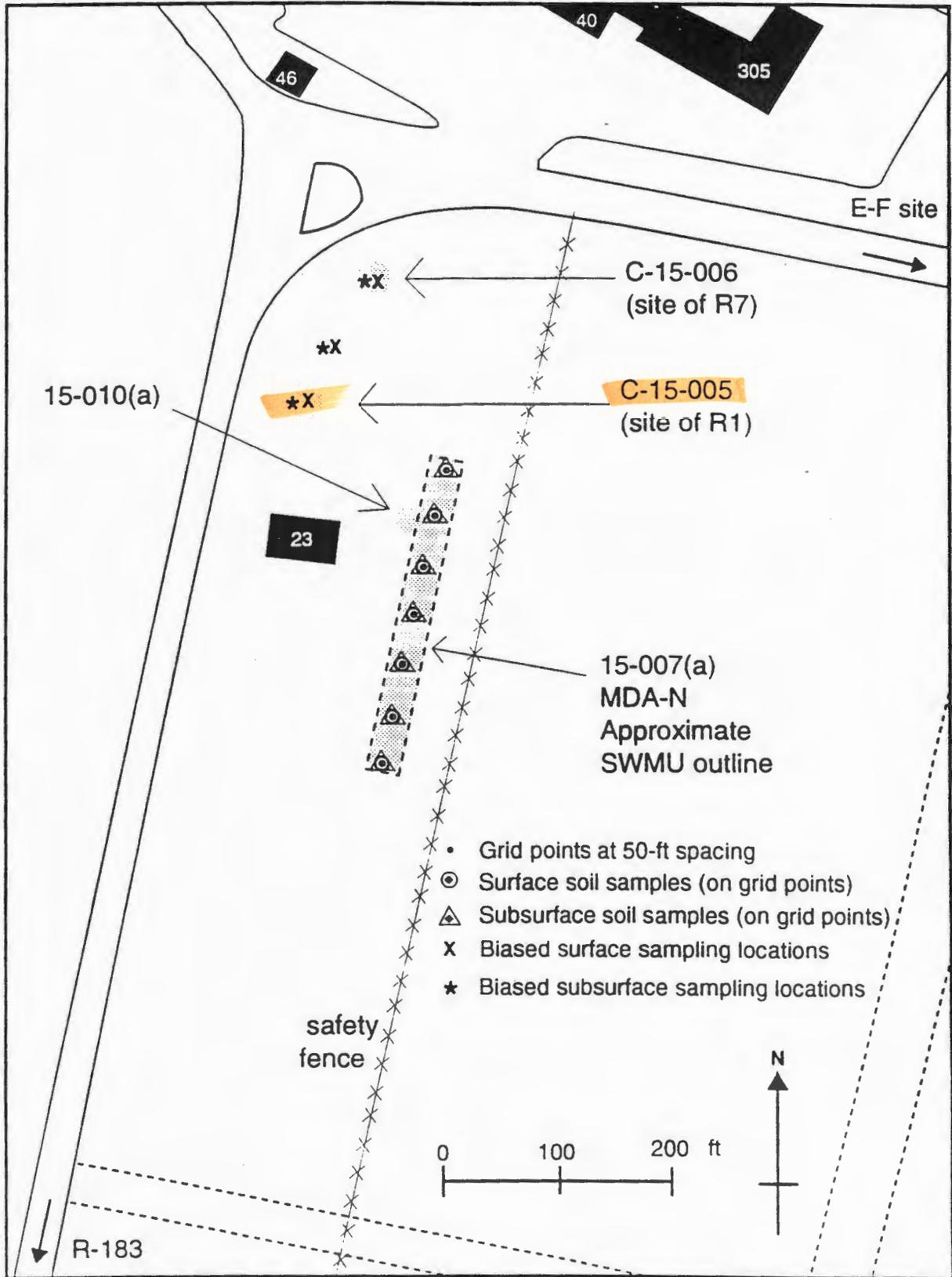


Figure 9.1-1 Sampling plan for MDA-N, C-15-005, and C-15-006.

**LOS ALAMOS NATIONAL LABORATORY
FORMER BUILDING R-7 SUMMARY SHEET
PRS C-15-006**

Description:

Former Building R-7, PRS C-15-006 was used during the last half of the 1940s as a Control Room and Dark Room in support of Firing Sites C and possibly D. The building was removed about 1962 time frame. It was located south of Bldg. R-40 at the intersection of the road to Firing Site E-F and the R-Site Road leading to Bldg. R-183 (see attached map). Mercury was used in the building and a small spill occurred in the building but was subsequently cleaned up. There is no reported use or handling of HE or uranium in the building.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Two soil samples were collected from the area where the building was located. They were sent to an offsite fixed laboratory for analysis.

Cleanup:

Based on sample results and screening assessment, we have proposed this PRS for NFA under criterion 5.

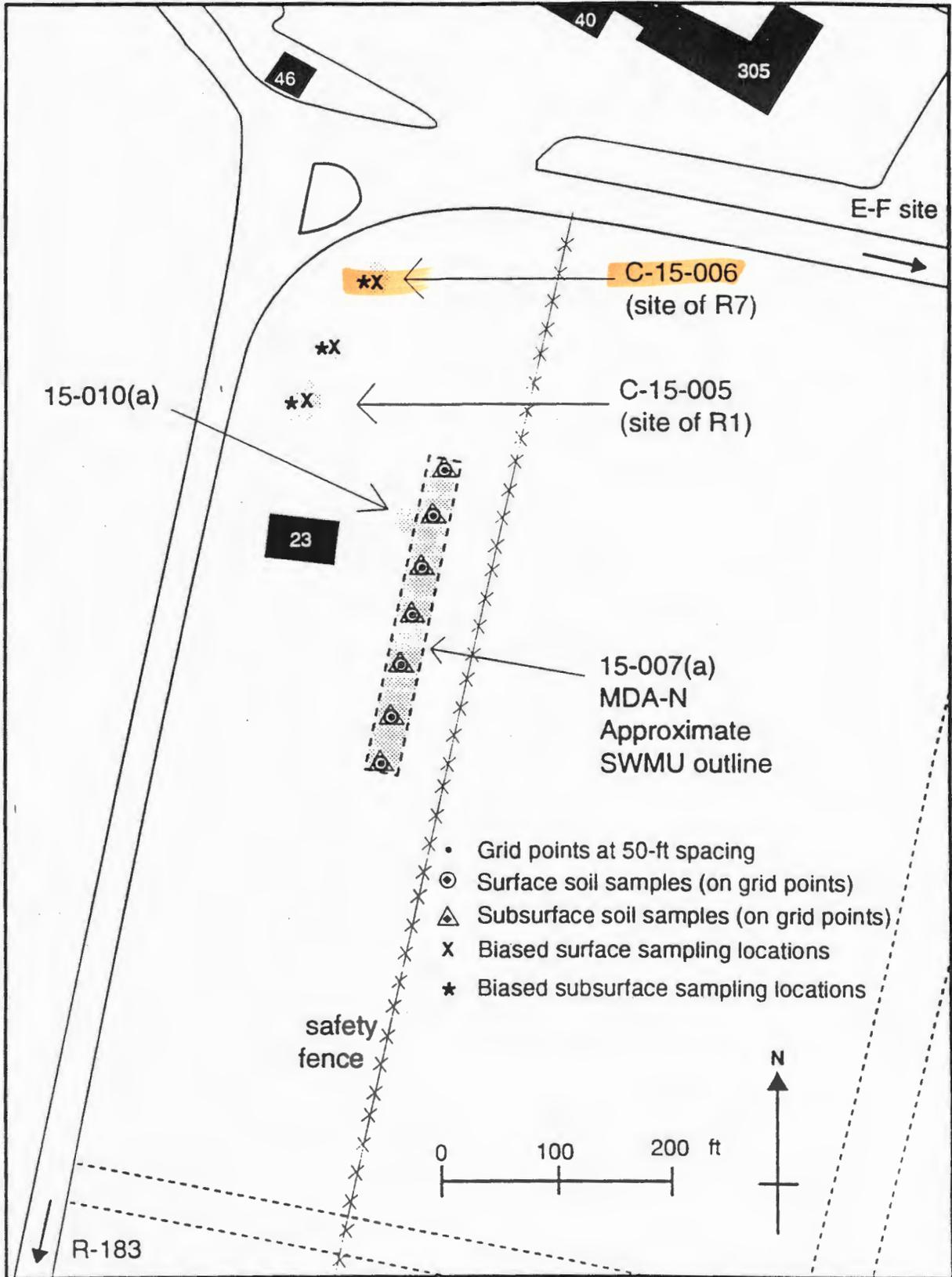


Figure 9.1-1 Sampling plan for MDA-N, C-15-005, and C-15-006.

**LOS ALAMOS NATIONAL LABORATORY
SEPTIC TANK @ MDA-N SUMMARY SHEET
PRS 15-010(a)**

Description:

Septic Tank, PRS 15-010(a) was built in 1944 of reinforced concrete, and served Bldg. R-1. It was later connected to relocated Bldg. R-23. It was reported to have been abandoned in 1961. Field investigations found the tank measuring approximately 5 feet by 8 feet long by 3 feet deep, had not been removed, but was left in place and backfilled with soil. The tank is approximately 4 feet below grade at MDA-N (see attached map).

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Two samples were collected during field investigation activities in 1995 and submitted to an offsite fixed laboratory for analysis. The samples were analyzed for TAL metals, VOCs, SVOCs, HE and by gamma scan. The samples were taken from near the bottom of the tank in material that was either fill or material left in the tank when it was abandoned. Although analytical results indicate elevated readings of mercury, it is not believed that the samples adequately characterized this PRS.

Cleanup:

Phase II sampling is planned around and in the tank to adequately characterize any potential contamination associated with the tank. Phase II activities are scheduled for FY97.

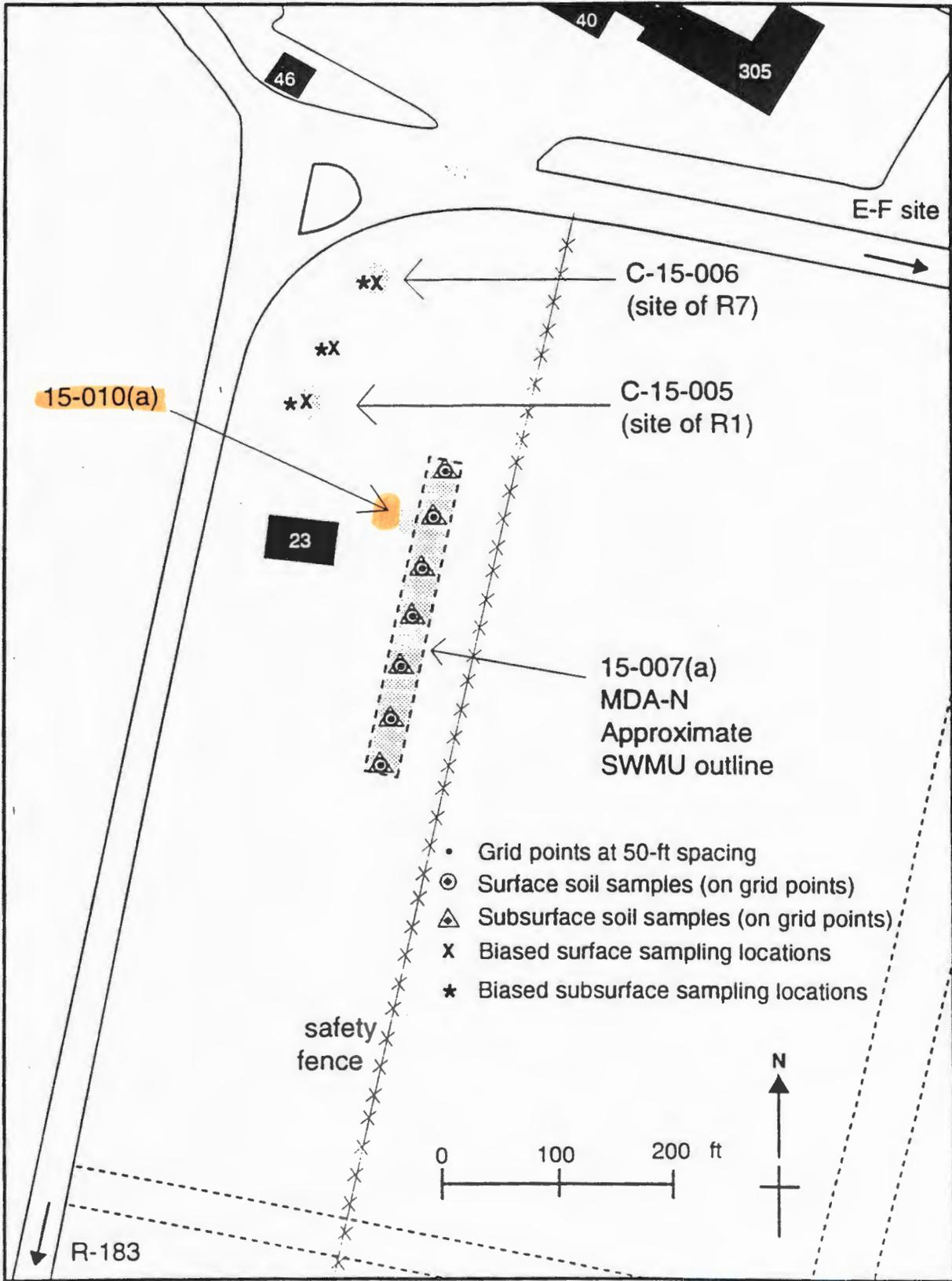


Figure 9.1-1 Sampling plan for MDA-N, C-15-005, and C-15-006.

**LOS ALAMOS NATIONAL LABORATORY
OUTFALLS AT R-40 SUMMARY SHEET
PRS 15-014(h)**

Description:

Outfalls (3) PRS 15-014(h) are located on the northeast side of Building R-40 (see map). Two of the three outfalls are permitted by the EPA. The first outfall, located on the northwest side of Building R-40, is permitted under EPA 04A 013. Before it was permitted, its effluent included wastes from a photographic laboratory. The second outfall is located more towards the east end of Building R-40 and is also permitted under EPA 04A 102. Its discharge water is from non-contact cooling water, roof drains, and floor drains. COPCs for these outfalls may contain silver, VOCs, and SVOCs. The third outfall is a storm drain that connects a yard drain located north and east of Building R-40. This drain was recommended for NFA in the RFI work plan and approved by EPA. Therefore, it was not sampled.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Nine samples were collected from the first two outfalls and associated drainage trenches. They were submitted to an offsite laboratory for analysis. The samples were analyzed for TAL metals, VOCs, and SVOCs.

Cleanup:

Based on results of analytical data and Criterion 5, NFA is recommended for this PRS.

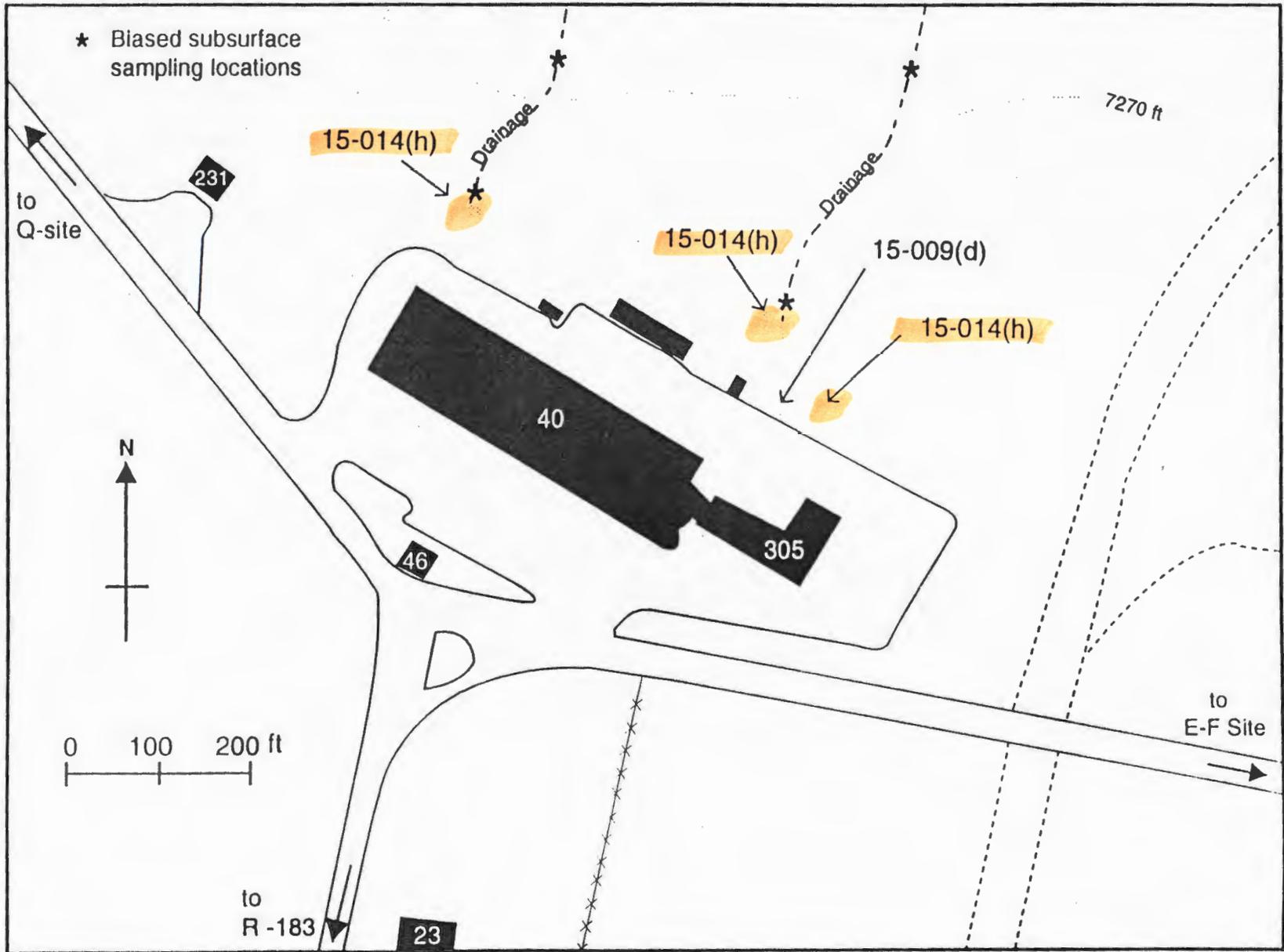


Figure 10.3-1 SWMUs at R-40.

**LOS ALAMOS NATIONAL LABORATORY
SEPTIC TANK @ R-40 SUMMARY SHEET
PRS 15-010(b)**

Description:

Septic Tank, PRS 15-010(b) is an inactive septic tank located approximately 200 feet northeast of Bldg. R-8 (see attached map). A concrete cube 5 feet by 5 feet by 5 feet was constructed in the 1950s and described as a septic tank, clean-out tank, or settling tank that serviced Bldg. R-8, along with an associated drainline to an outfall at the edge of Three Mile Canyon. Because HE was machined in Bldg. R-8, it was assumed that HEs would be found in the tank and at the point of discharge.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

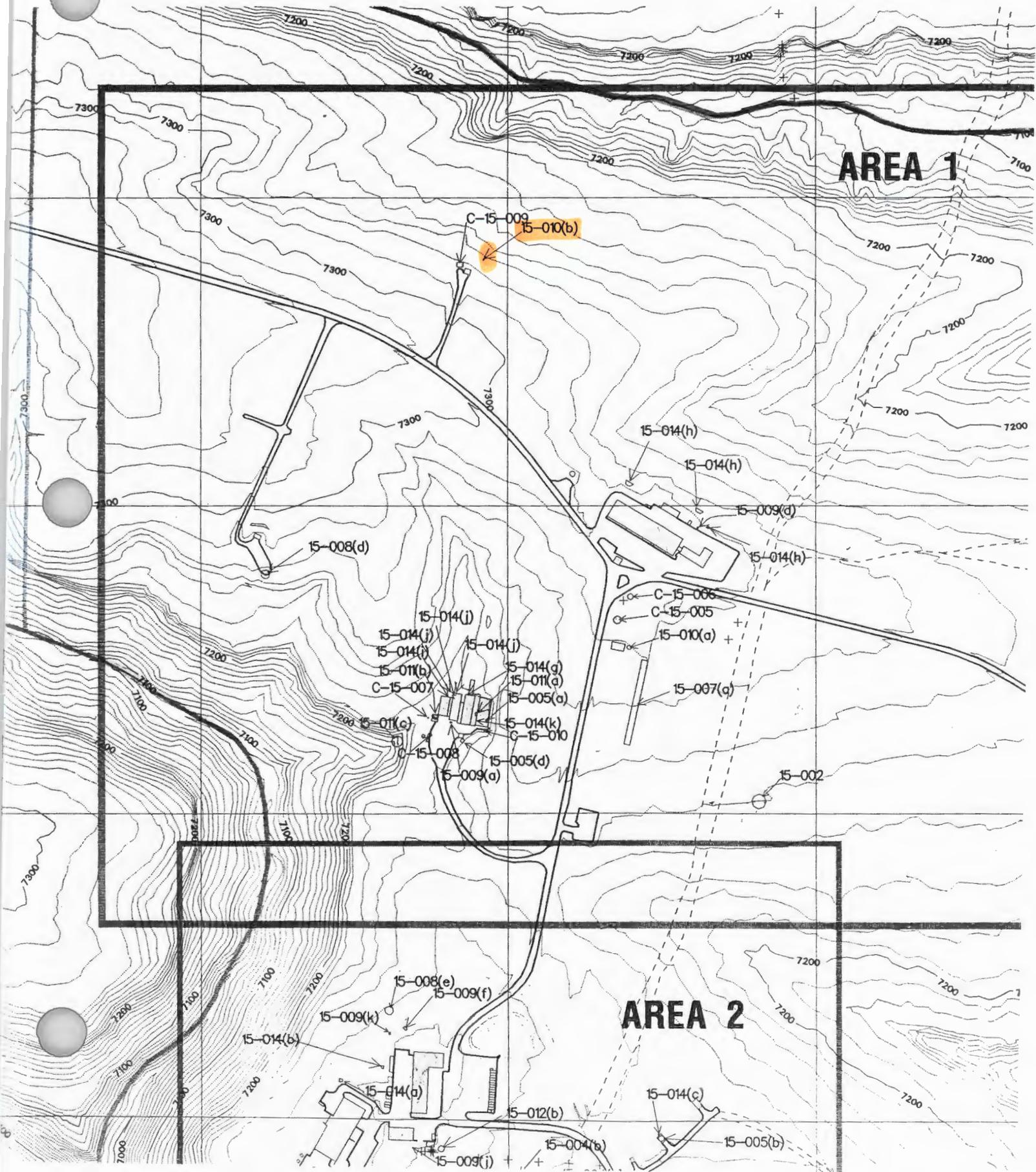
A total of four samples were collected from this PRS. One from within the tank and three from the drainage channel. HE spot tests were conducted with no positive results, also radiological screening was conducted at each sample location with no readings above background recorded. Samples were submitted to an offsite fixed laboratory for analysis.

Cleanup:

Based on the analytical data results, no COPCs were retained at this PRS, and NFA is proposed under criterion 5.

P 915

TA-15 - Potential



**LOS ALAMOS NATIONAL LABORATORY
FIRING SITE A-B SUMMARY SHEET
PRS 15-004(b)**

Description:

Initial construction at TA-15 (R-Site) was completed in 1944, and the site was ready for research equipment to be installed. Among the first sites to be used were Firing Sites A & B. They were located approximately 200 feet apart on a flat area southwest of the present day building TA-15-183. (See attached map and photo). The experimental work was done largely at Firing Site A, where the size of the explosions were relatively small. It is believed that any contamination by hazardous materials at Firing Sites A & B would be commingled in the area. Therefore, these two sites have been combined into one. Natural uranium was used to a large extent and only a few kilograms were employed at a time. Also other metals, presumably beryllium, lead and mercury were used in small amounts as well as small amounts of HEs. Both sites were used from approximately 1945 to 1952, at which time both sites were decommissioned and the land regraded in 1967. Before decommissioning, two structures associated with Firing Sites A & B were surveyed and found to have no detectable levels of either radioactive matter or HEs.

Since TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Surface and subsurface samples were collected and field screened for alpha, beta, and gamma contamination and for uranium, beryllium, lead and field spot tested for HEs. Samples were submitted to a fixed laboratory for analysis. Samples were analyzed for gamma spectroscopy, total uranium, and TAL metals. Results of the analytical data from the fixed laboratory indicate the presence of lead above the SAL.

Cleanup:

A Voluntary Corrective Action (VCA) Plan was prepared to describe the process to be followed in the removal of twelve 55 gallon drums of contaminated soil. Confirmatory sampling was conducted to verify total cleanup of the area of contaminants was achieved. Cleanup was accomplished in FY96.

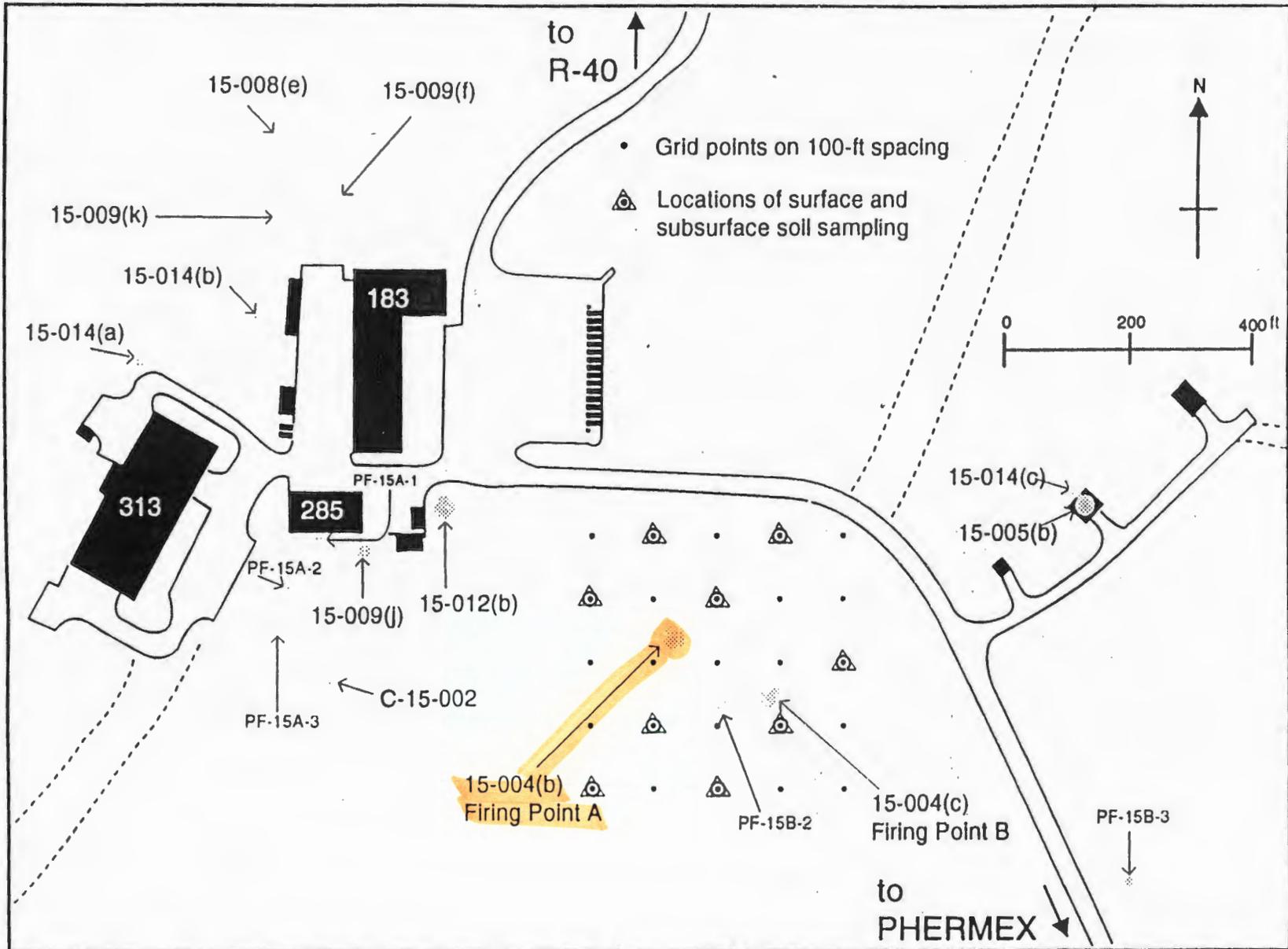


Figure 8.3-1 Site diagram and sampling grid for Firing Sites A and B at TA-15. (The PF designations refer to the site of samples taken prior to the installation of a new sewage line, June 1992. See Fresquez 1991,0003.)



FIRING SITE A-B



**LOS ALAMOS NATIONAL LABORATORY
SEPTIC SYSTEM SUMMARY SHEET
PRS 15-012(b)**

Description:

PRS 15-012(b) is a sunken, soil-bermed wash area approximately 63 feet by 20 feet located southeast of Building 15-285. This area is within the secured boundaries of TA-15. (See attached map and photo). The explosive groups at the Laboratory washed out heavy-walled steel spheres (6' diameter) used for explosive testing activities. After the explosive tests, the spheres were suspended over the Wash Area and washed out. Also personnel would enter each sphere to thoroughly clean them. The debris washed from the spheres would be similar to that found with noncontained explosions: uranium, beryllium, and lead. The Wash Area was surveyed with hand-held radiation meters and was found to be radioactively contaminated.

Since TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

A total of twelve surface and subsurface samples were collected and sent to a mobile radioanalysis van, then to a mobile chemistry van for x-ray fluorescence (XRF). Laser-Induced Breakdown Spectroscopy (LIBS) was used to determine beryllium content. All sample locations were screened for high explosives using a field spot test kit, with no indications of HE present. Also all samples were screened for alpha, beta, and gamma. Six surface and subsurface samples (three of each) were sent to a fixed laboratory for analysis. Results of the data from the analytical laboratory indicate the presence of uranium and beryllium above the SAL. It was also noted that the bermed areas and around an ant hill had higher levels of radioactivity.

Cleanup:

A Voluntary Corrective Action (VCA) plan will be prepared to describe the process to be followed in the removal of approximately 150-300 cubic yards of contaminated soil. Confirmatory sampling will be conducted to verify total cleanup of the contaminants was achieved. Cleanup is scheduled for FY97.

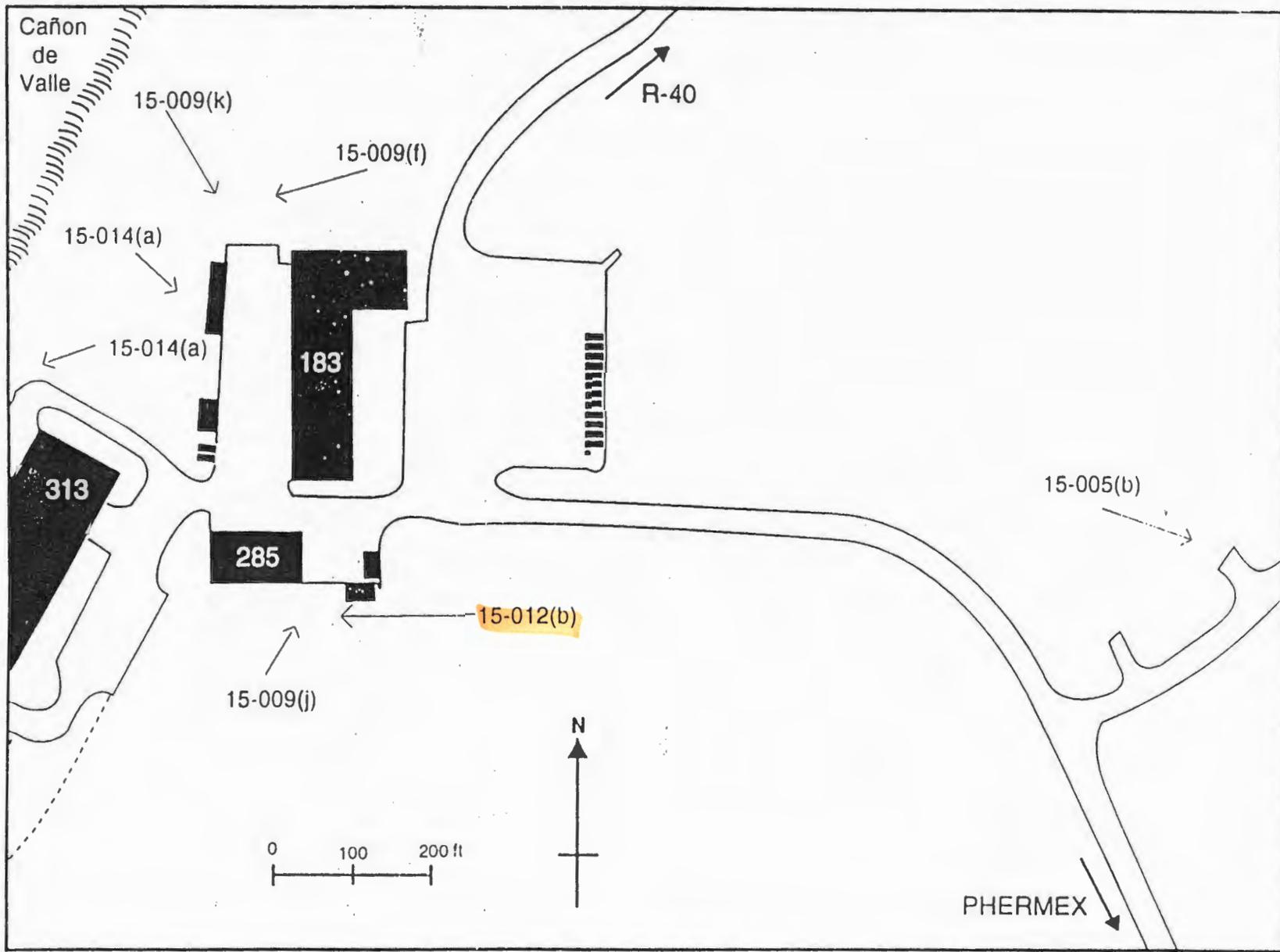


Figure 10.2-1 Diagram of R-183 showing location of PRSs with sampling plans in chapter 10.

RFI Work Plan for OU 1086

10-11

June 1993

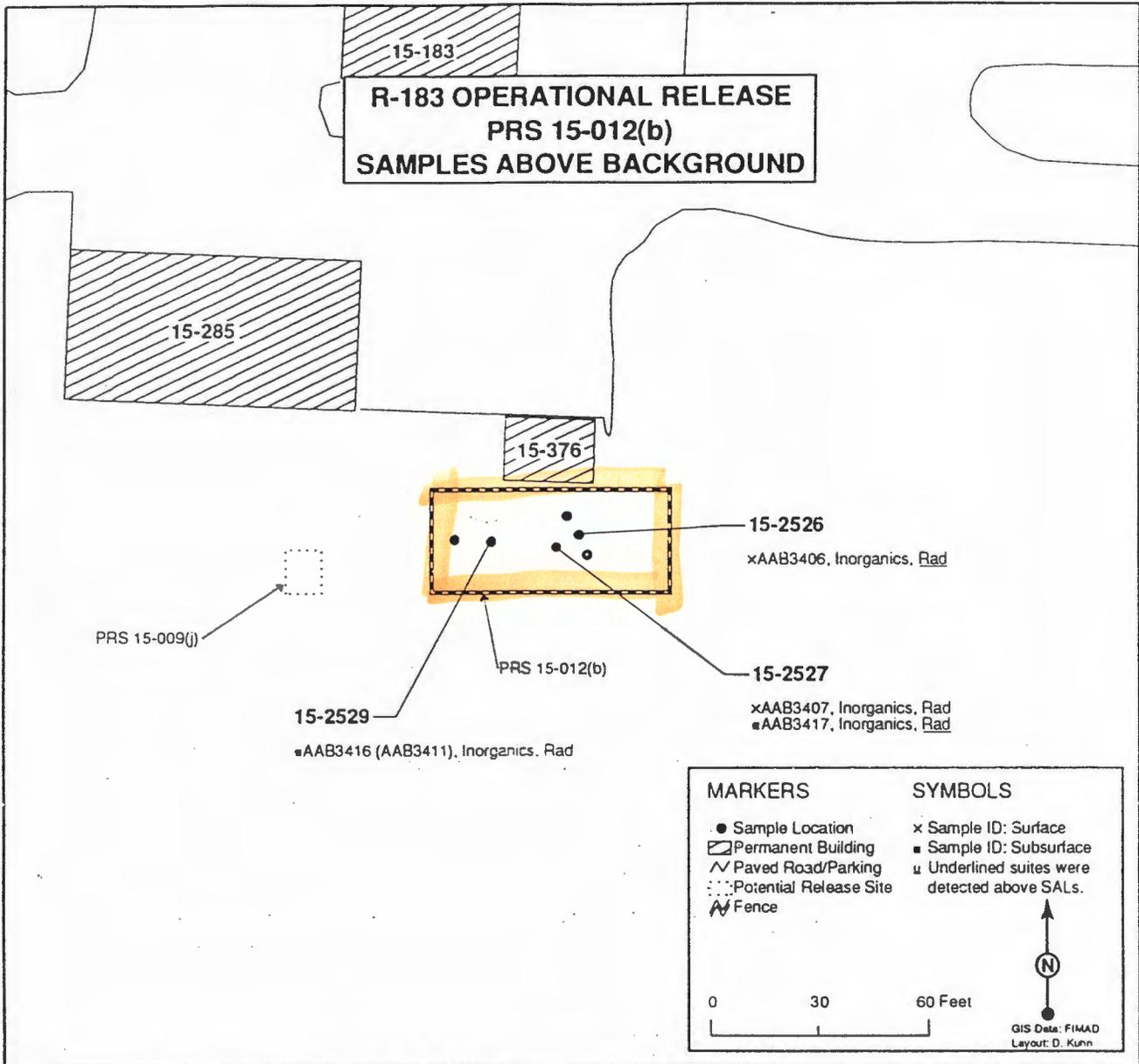


Figure 4-11. Locations of samples above background



WASH AREA



WASH AREA

**LOS ALAMOS NATIONAL LABORATORY
SEPTIC SYSTEM SUMMARY SHEET
PRS 15-009(j)**

Description:

PRS 15-009(j) is located within the secured boundaries of TA-15. The tank and drain field are positioned approximately 50 feet southeast of building TA-15-285. (See attached map and photo). The tank served Building TA-15-285 that has a bathroom, sink, shower, and janitor sink. The septic tank system was disconnected in the fall of 1992, and the Building TA-15-285 connected to the new Sanitary Waste Consolidation System (SWCS).

Conversations with personnel involved in past operations in the building indicated that silver soldering and use of a brightening tank occurred between 1979-1986. Cadmium is the main ingredient in brightening tanks. Also, it was indicated that personnel contaminated with beryllium, uranium, and lead from the vessel washing at PRS 15-012(b) showered in Building TA-15-285.

Since TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

The tank is essentially void of liquids, however, there was enough water in the bottom that allowed the collection of some samples. Samples were sent to a fixed laboratory for analysis. Samples were analyzed for total uranium, TAL metals and HE's. Results of the analytical data from the fixed laboratory indicate the presence of antimony, barium, cadmium, copper, lead, manganese, mercury, nickel, selenium, silver, vanadium, and zinc above the SAL and arsenic.

Phase II investigation is planned for the two seepage pits and underneath the tank.

Cleanup:

A Voluntary Corrective Action (VCA) plan will be prepared to describe the process to be followed in the removal of the named contaminants and the cleaning of the tank. Confirmatory sampling will be conducted to verify total cleanup of the contaminants was achieved. Cleanup will be accomplished during FY97.

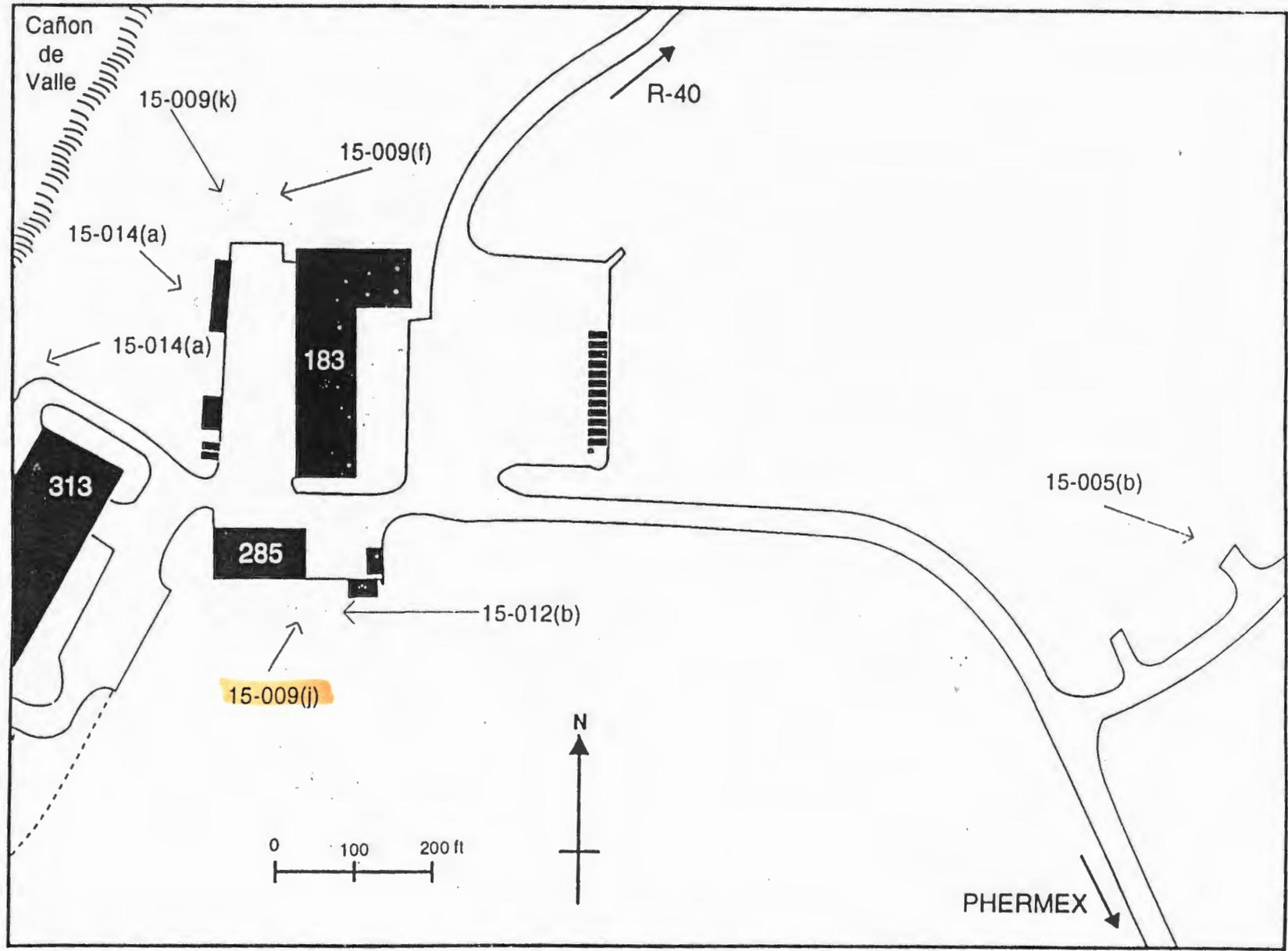


Figure 10.2-1 Diagram of R-183 showing location of PRSs with sampling plans in chapter 10.

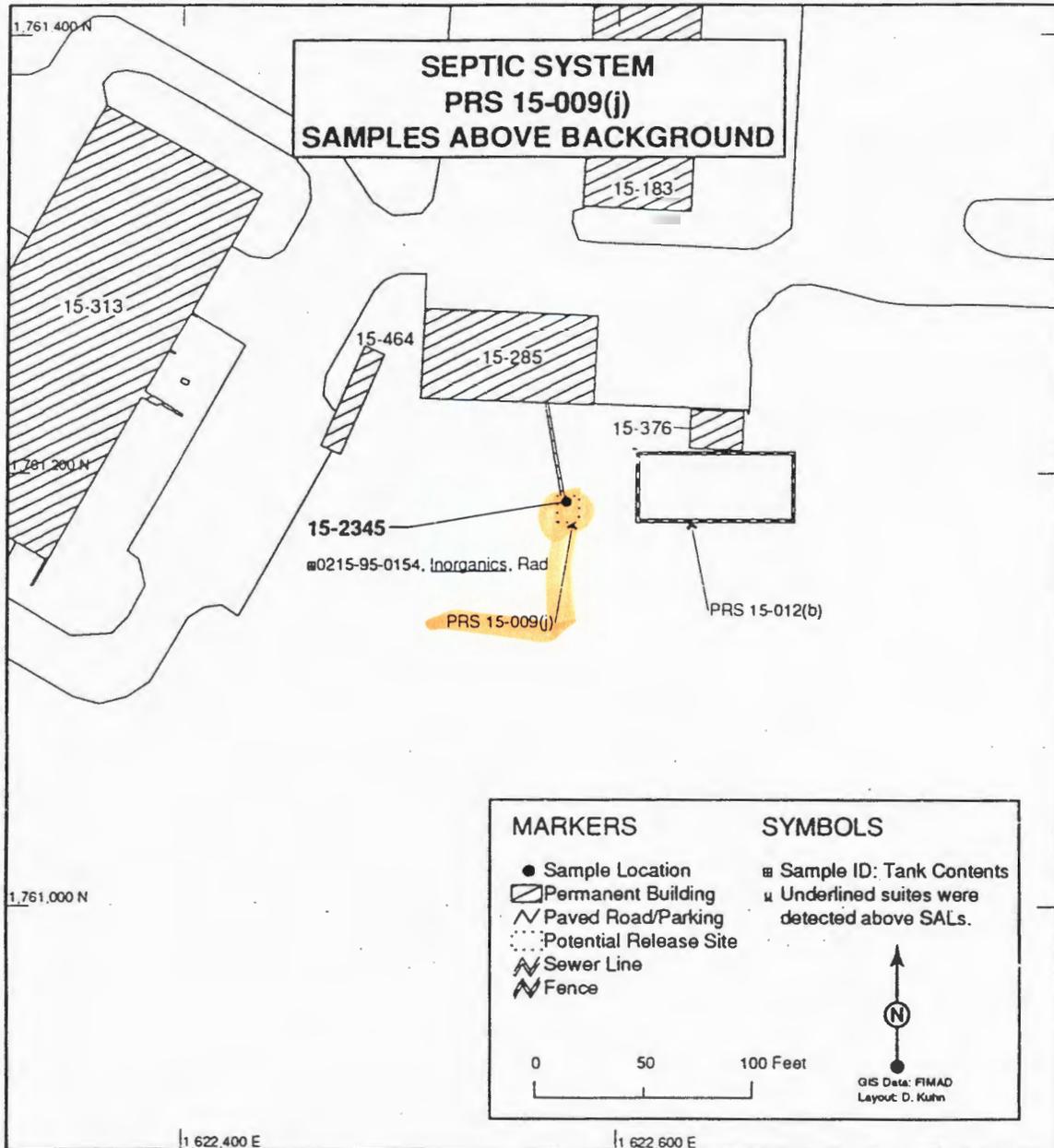


Figure 4-12. Locations of samples above background



SEPTIC TANK @ R-285



Septic $\frac{1}{2}$ Drain @ R-285

**LOS ALAMOS NATIONAL LABORATORY
OUTFALL @ R-183 SUMMARY SHEET
PRS 15-014(a)**

Description:

Outfall, PRS 15-014(a). This is an outfall from drains in Bldg. R-183 and is located on the southwest end of Bldg. R-183. This system has been in use since 1961 and is permitted under EPA permit number 06A 123 for its present use. Prior to this permit, its effluent included photographic wastes, making silver and organics the potential hazardous materials at this PRS. In 1987 a new drainline was installed in the same path as the original drainline. COPCs associated with this PRS include silver, VOCs and SVOCs. Since sampling was conducted, soil has been inadvertently removed during construction of a new building. Some of the soil was redistributed over the site and some may have been removed from the site.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Seven surface and subsurface samples were collected from the PRS and associated drainage area. They were submitted to a fixed offsite laboratory for analysis. The samples were analyzed for TAL metals, VOCs and SVOCs.

Cleanup:

We have proposed NFA under criterion 5 for this PRS.

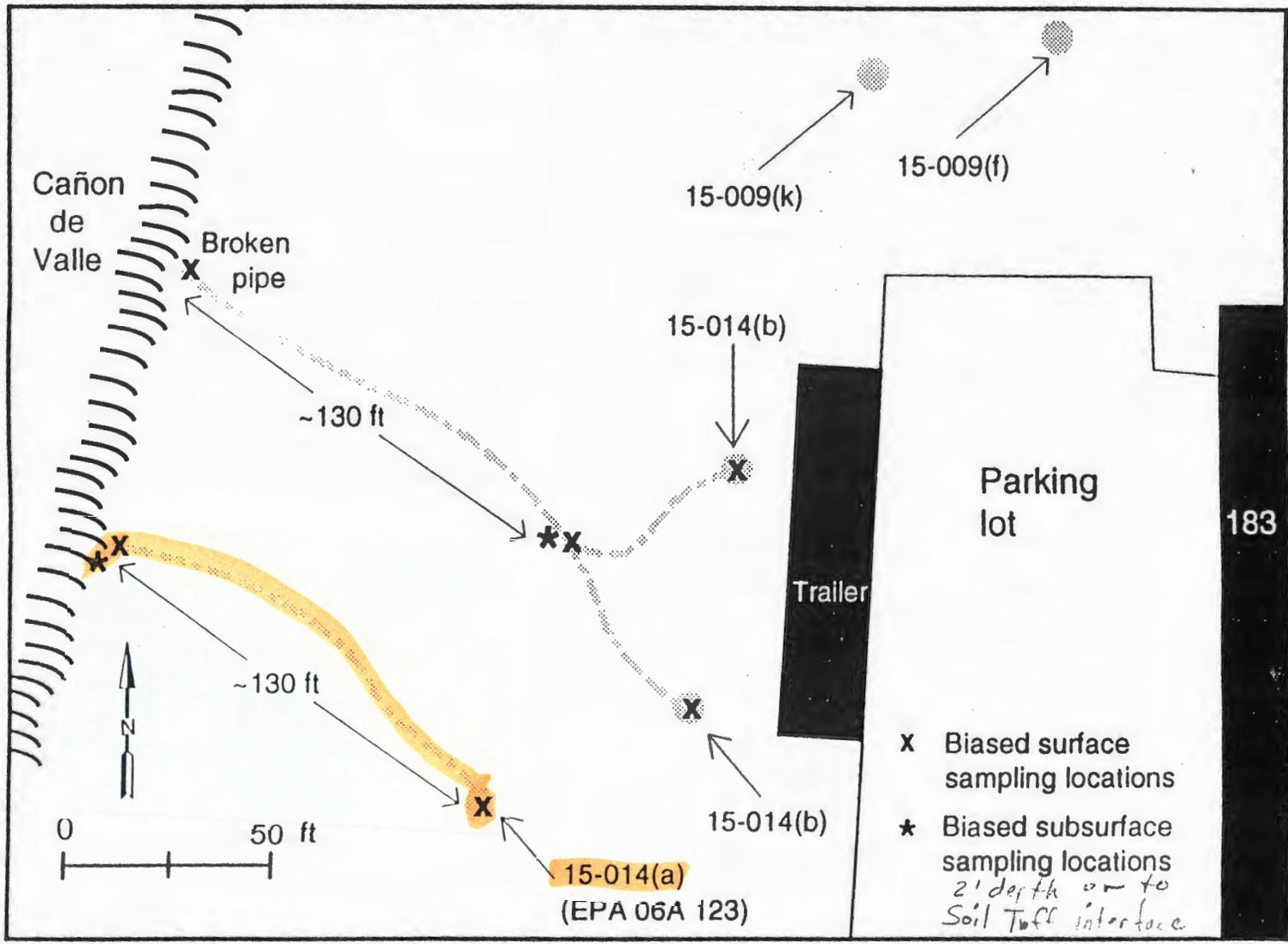


Figure 10.2-5 Diagram for location and sampling plan for SWMUs 15-014(a) and 15-014(b).

**LOS ALAMOS NATIONAL LABORATORY
OUTFALL @ R-183 SUMMARY SHEET
PRS 15-014(b)**

Description:

Outfall, PRS 15-014(b). This PRS consists of two separate outfalls from drains from Bldg. R-183 located west of Bldg. R-183 (see attached map). The two outfalls join together and drain into Canon de Valle. Effluent from Bldg. R-183 included photographic wastes, making silver and organics the potential hazardous materials at this PRS. Since sampling, this PRS has been disturbed. Some soil has been redistributed over the site and some may have been removed from the site. This was the result of construction activities in the area. COPCs associated with the PRS are silver, VOCs and SVOCs.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Thirteen surface and subsurface samples were collected from the outfalls and associated drainages. They were submitted to an offsite fixed laboratory for analysis. Samples were analyzed for TAL metals, VOCs and SVOCs.

Cleanup:

Based on analytical data reports and criterion 5, we propose NFA.

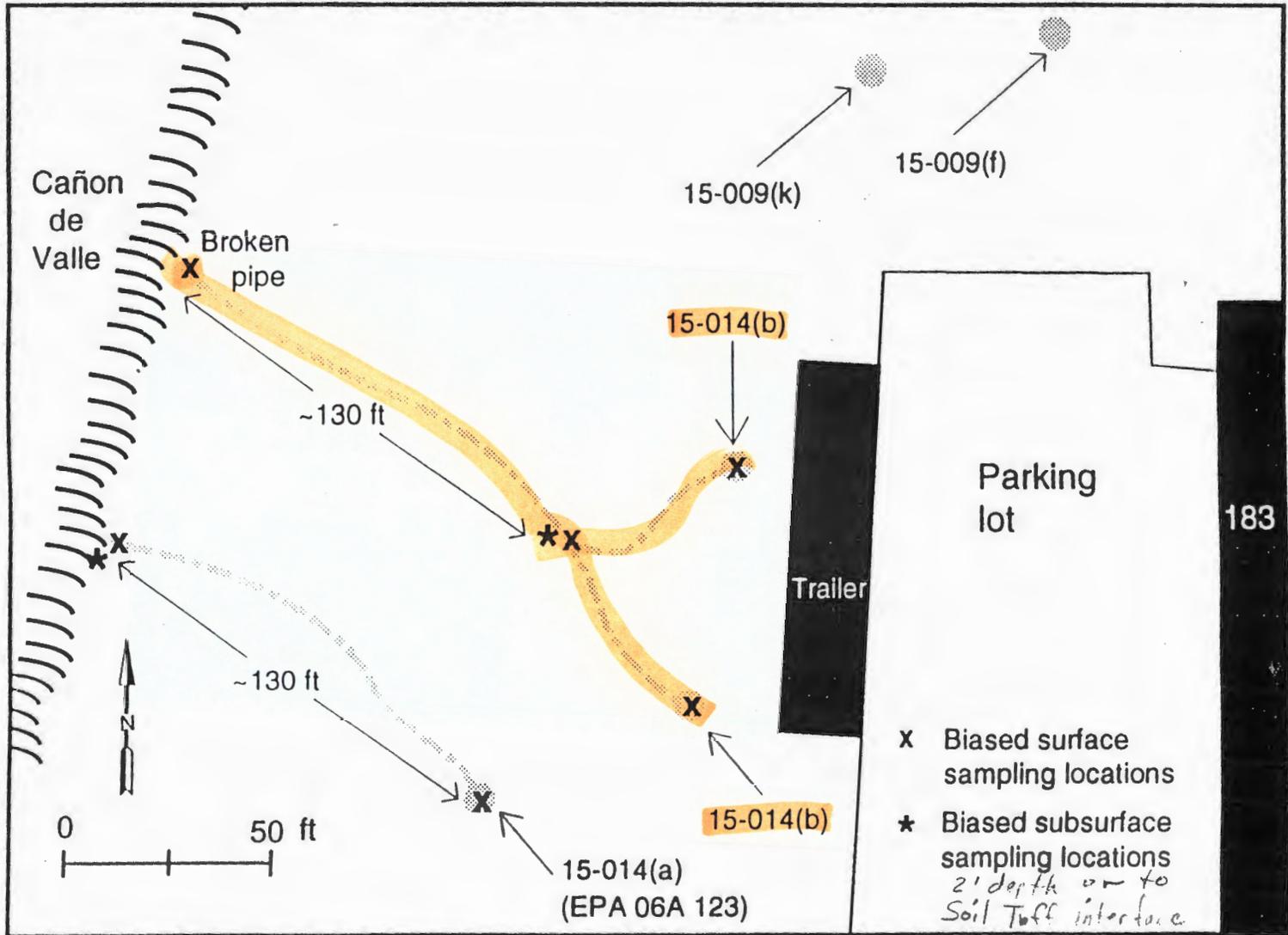


Figure 10.2-5 Diagram for location and sampling plan for SWMUs 15-014(a) and 15-014(b).

**LOS ALAMOS NATIONAL LABORATORY
SEPTIC TANKS SUMMARY SHEET
PRS 15-009(f)&(k)**

Description:

Septic Tank Systems, PRSs 15-009(f)&(k) are reinforced concrete septic tanks located approximately 75 feet and 150 feet respectively from Bldg. R-183 (see attached map). They were constructed to accept sanitary waste from laboratory buildings. These two septic systems are inactive and have been registered with NMED as unpermitted individual liquid waste systems. Bldg. R-183 was connected to the new sanitary waste consolidation system in 1992. COPCs of concern for these septic tanks were uranium, silver, beryllium, lead, VOCs, SVOCs, and HE.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

One sample per tank was collected and submitted to an offsite fixed laboratory for analysis. Results from the analytical data did not indicate elevated levels of COPCs.

Cleanup:

Based on the analytical results, these two septic tanks have been proposed for NFA under criterion 5.

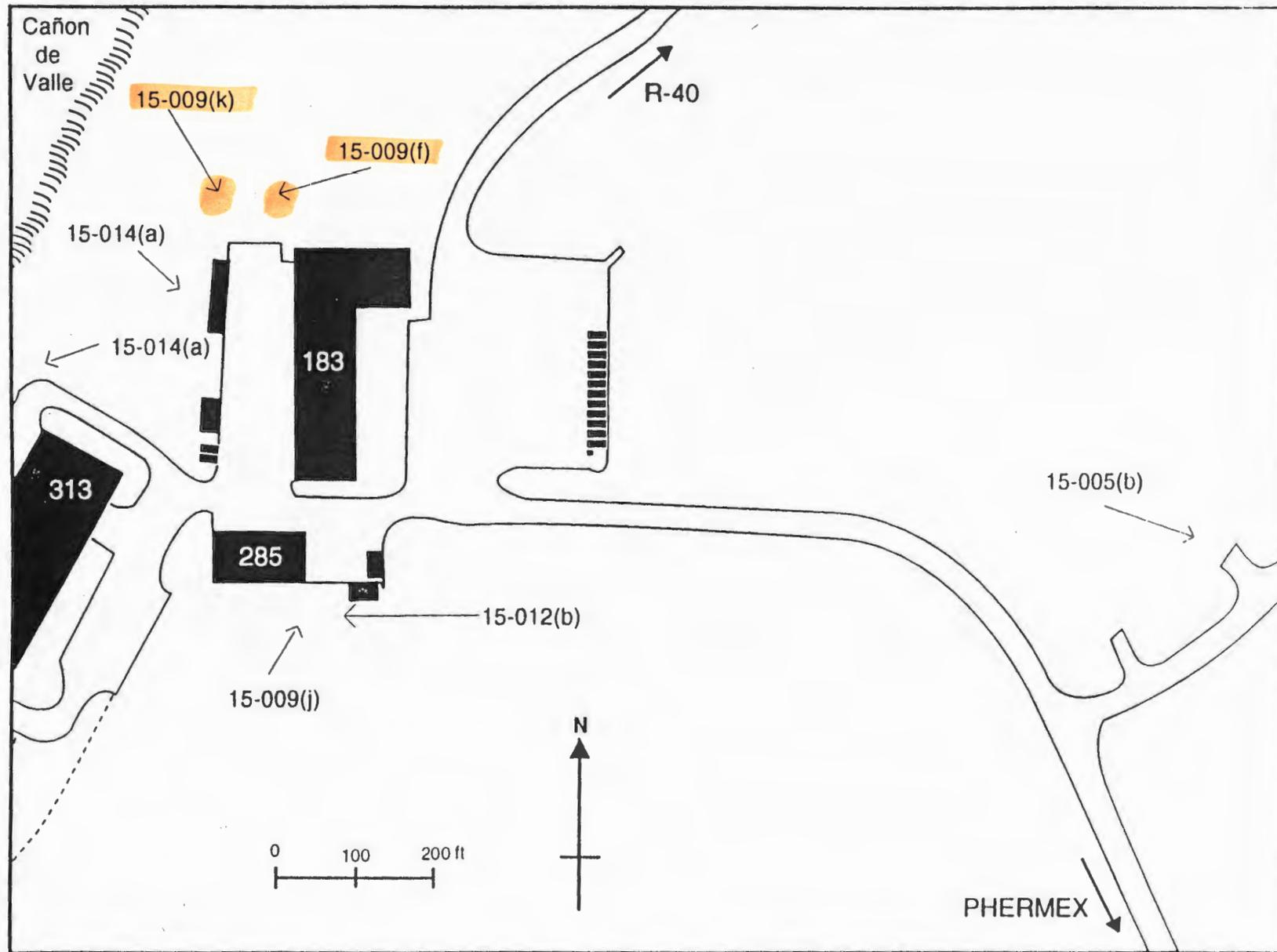


Figure 10.2-1 Diagram of R-183 showing location of PRSs with sampling plans in chapter 10.

**LOS ALAMOS NATIONAL LABORATORY
CONTAINER STORAGE AREA SUMMARY SHEET
PRS 15-005(b)**

Description:

Container Storage Area, PRS 15-005(b) is located approximately 750 feet east of Bldg. R-183 (see attached map). It stores HE and is regulated under 40 CFR Part 262. This is an active site, currently under use by DX Division.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Soil samples were collected outside the bunker. All samples were field screened for the presence of radiation contamination, metals and HE. All samples were sent to a fixed laboratory for analysis. Samples were analyzed for total uranium and TAL metals.

Cleanup:

Results of sample analysis did not indicate the presence of contamination above the SAL, thus request for NFA under criterion 5 has been requested.

15-005(b)

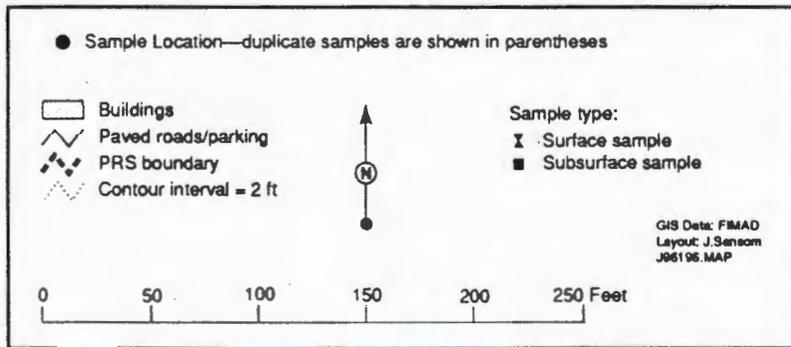
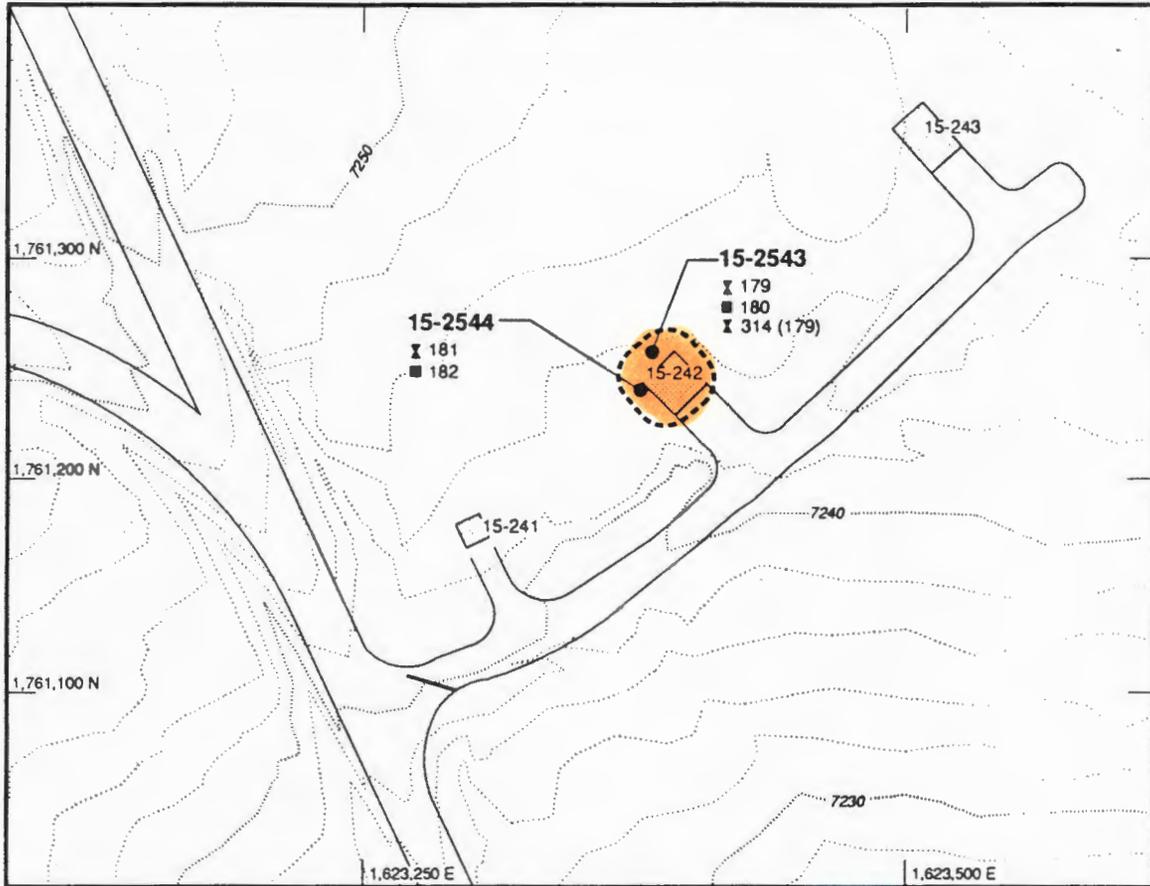


Figure 5.30.4.3-1 Location of PRS 15-005(b) samples



**LOS ALAMOS NATIONAL LABORATORY
MATERIAL DISPOSAL AREA (MDA-Z) SUMMARY SHEET
PRS 15-007(b)**

Description:

MDA-Z, PRS 15-007(b) is an inactive disposal area that occupies a volume of approximately 2,000 cubic yards, located south of a side road leading to building TA-15-233. (See attached map and photo). This disposal area was authorized for use between 1965 and 1981 for construction debris, used concrete sand bags, steel blast matting from tests at PHERMEX, and other debris. Concrete filled sand bags were placed as a retaining wall and other debris was then filled in behind. The debris is largely not covered with soil and is therefore exposed to rain and snowmelt. An aerial radiological survey of 1982 did not detect radioactive contamination.

Since TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Surface and subsurface samples were collected and submitted to a fixed laboratory for analysis. The samples were analyzed for uranium, TAL metals, VOCs and SVOCs. Analytical data from the fixed laboratory indicates the presence of uranium, Benzo(a)anthracene, Benzo(a)pyrene, and Benzo(b)fluoranthene above the SAL. There is a concern of a debris pile at MDA-Z that contains mercury that exceeds screening criteria for reproductive and survival effects on vertebrates.

Cleanup:

An VCA Plan will be prepared to describe the processes to be used for cleaning up this site. The VCA to cleanup the MDA is proposed for FY98. The obvious remedy is to excavate, screen, sort and dispose of the material. This process is a bit complex in the fact that many unknowns exist (size of buried structures, extent of mixed waste contamination, etc.).

Confirmatory sampling will be conducted to verify total cleanup of contamination was achieved.

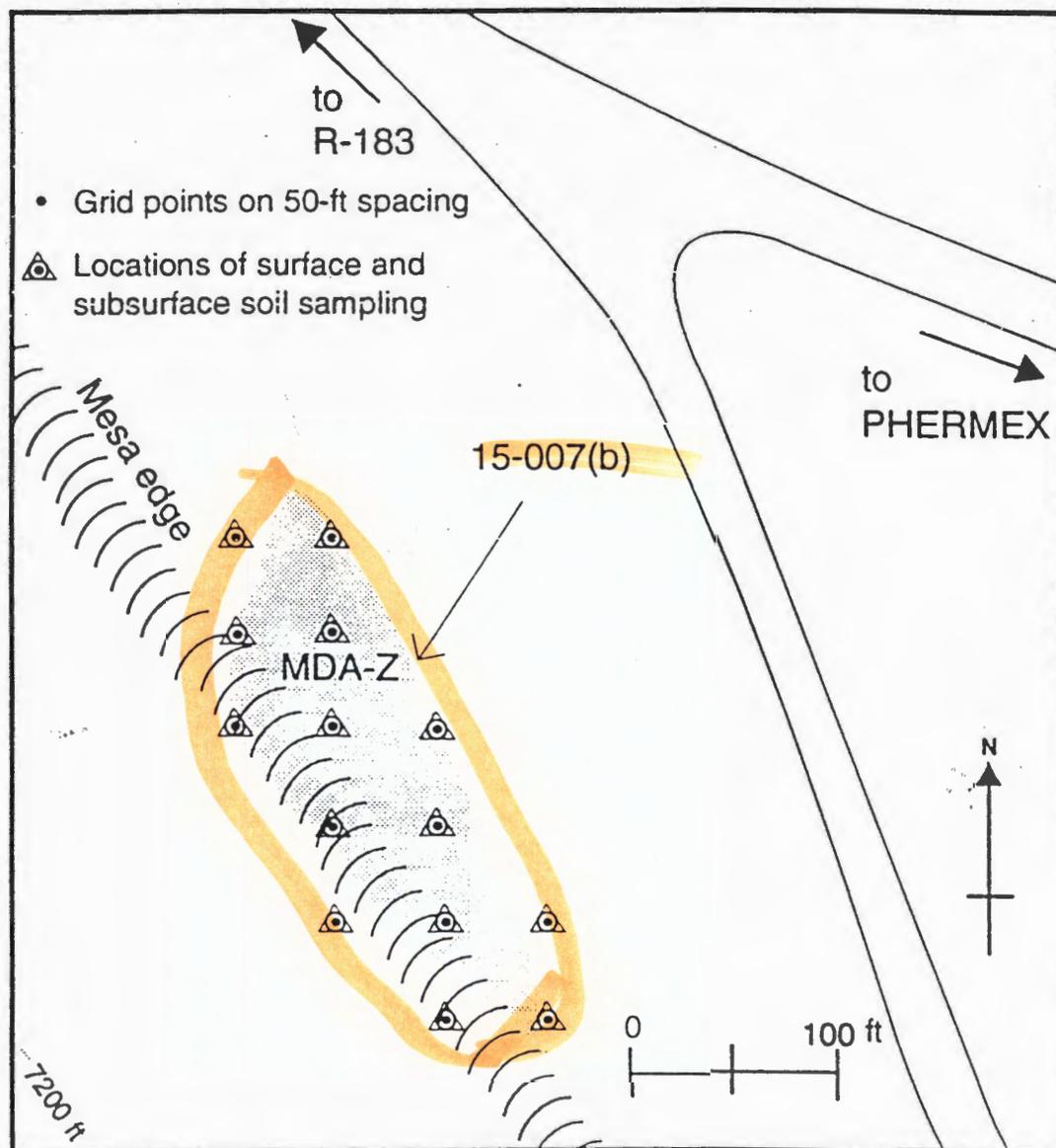


Figure 9.2-2 Sampling plan for MDA-Z [15-007(b)].



MDA-Z



MDA-Z

**LOS ALAMOS NATIONAL LABORATORY
FIRING SITE G SUMMARY SHEET
PRS 15-004(g)**

Description:

Firing Site G, PRS 15-004(g), is located in the southern half of TA-15 (see attached map and photo) and northwest of building TA-15-233 across a paved single lane road. The explosions carried out at Firing Site G were somewhat larger than those at A & B. Uranium (either natural or depleted), other metals, and HEs were used at the site. Chunks of uranium may be responsible for the high radiological readings at the site.

Since TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

More than twenty surface and subsurface samples were collected from Firing Site G, based on a 100 foot grid that extended 200 feet in all directions from Firing Site G. All samples were field screened for radiation contamination and metals, and any that showed such contamination were submitted to a fixed laboratory for analysis. Samples were analyzed for total uranium and TAL metals. Results of the analytical data from the fixed laboratory indicate the presence of depleted uranium and lead above the SAL.

Cleanup:

Because this area is located within the blast radius of other active sites, we are proposing to defer any remediation activities until the sites are officially decommissioned. At that time a plan will be developed to describe the methods to be used to remove approximately 1,000 cubic yards of contaminated soil.

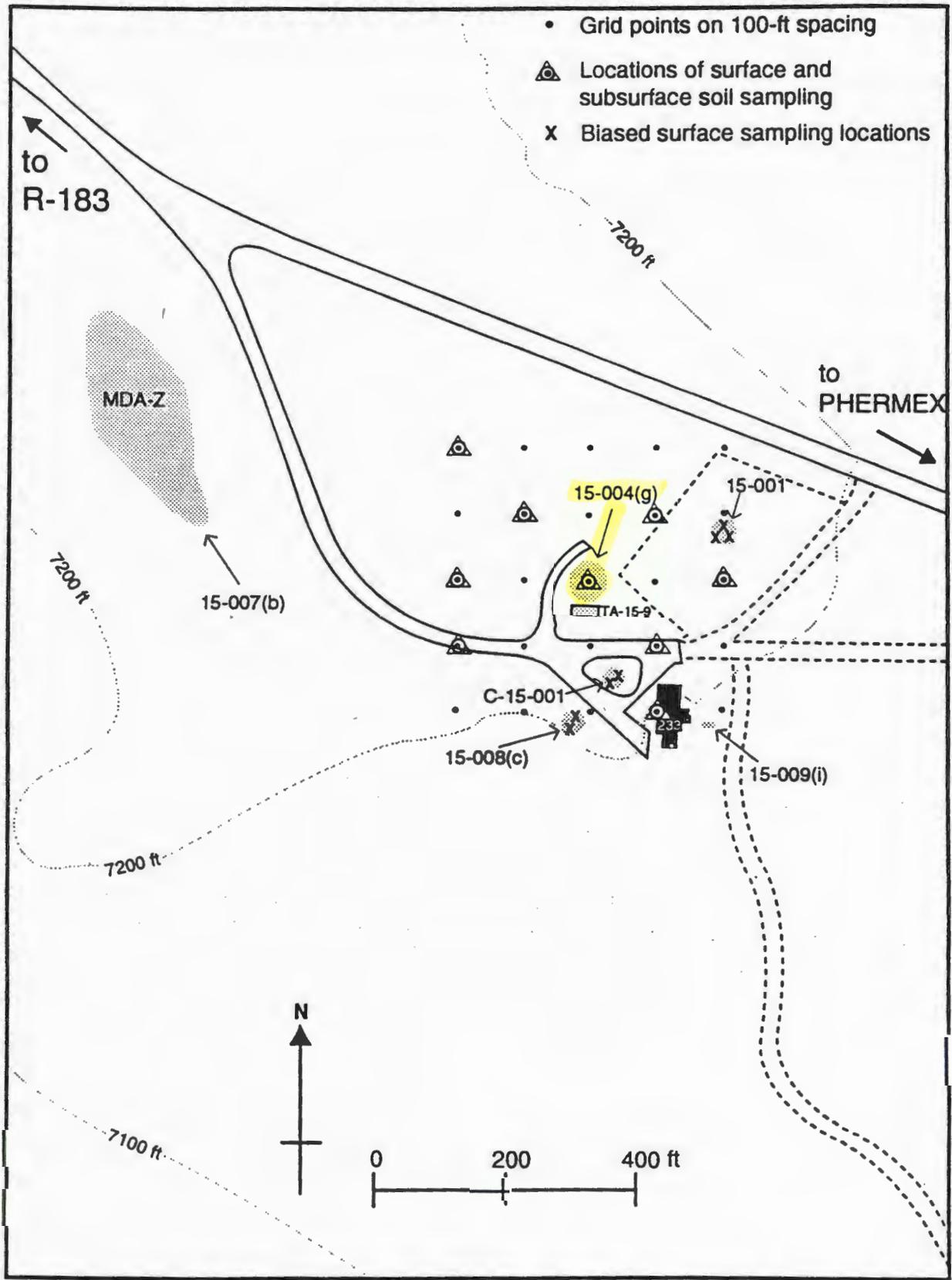


Figure 8.5-1 Site diagram and sampling grid for Firing Site G at TA-15.



Firing Site G



FIRING Site G

**LOS ALAMOS NATIONAL LABORATORY
BONEYARD (STORAGE AREA) SUMMARY SHEET
PRS 15-001**

Description:

The Boneyard (Storage Area), PRS 15-001 is located north and east of Bldg. R-233 and is used to store equipment, steel and experimental vessels of the using group. Equipment is cleaned at R-183 prior to being brought here.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Two surface soil samples were collected and analyzed for total uranium and TAL metals.

Cleanup:

Because this area is an active storage area, we have requested to defer remediation activities.

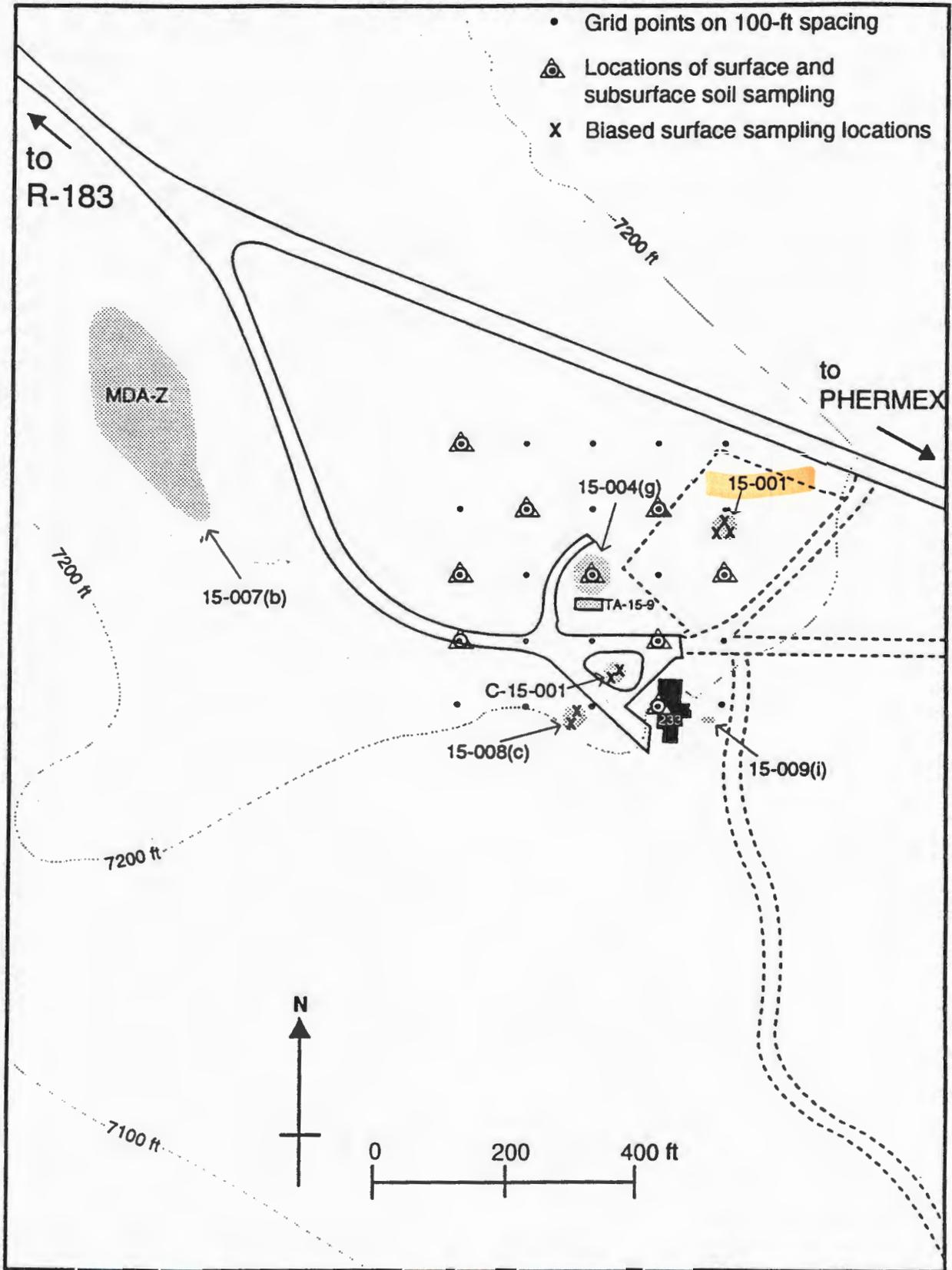


Figure 8.5-1 Site diagram and sampling grid for Firing Site G at TA-15.



**LOS ALAMOS NATIONAL LABORATORY
SURFACE DISPOSAL AREA SUMMARY SHEET
PRS 15-008(c)**

Description:

The Surface Disposal Area, PRS 15-008(c), is within the security boundaries of TA-15 and is located west of building TA-15-233, and south of Firing Site G, across a single lane asphalt road. (See attached map and photo). A radiological survey and soil sampling of the area was conducted in 1987. Exposure rates and uranium concentrations in soil samples were measured, however no HEs were found. The disposal area measures approximately 10 feet by 30 feet and is suspected of being radioactively contaminated.

Since TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Surface samples were collected from the disposal area. They were field screened for radiation contamination and the presence of HEs prior to collecting the samples. The samples were sent to a fixed laboratory and analyzed for total uranium and TAL metals. Results of the analytical data from the fixed laboratory indicate the presence of depleted uranium above the SAL and beryllium.

Cleanup:

An Interim Action Plan will be written to describe the methods to be used for picking up DU lying on the surface and deferring further action at the site until it is decommissioned. This action is proposed because the area is within the blast radius of other active sites.

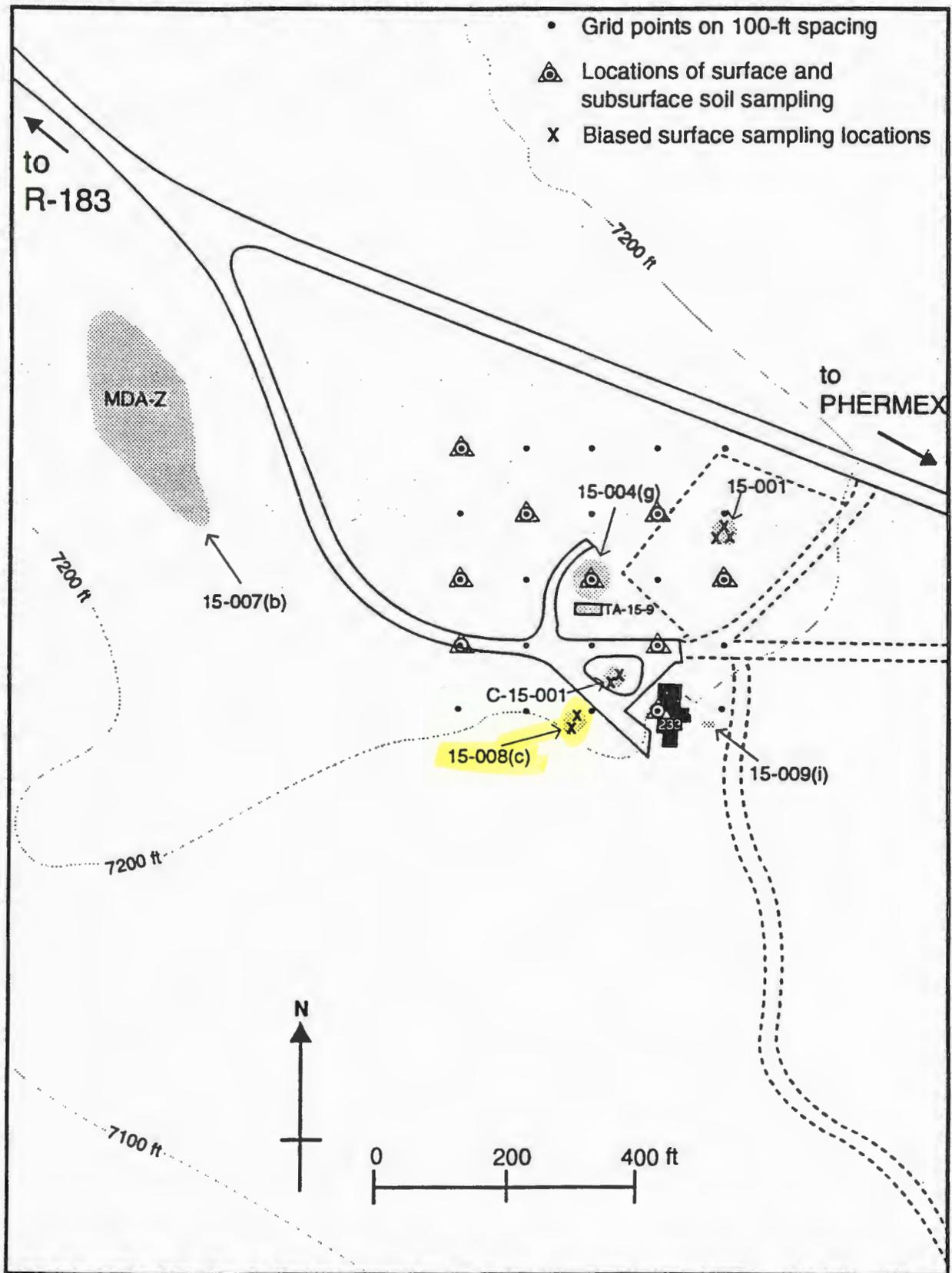


Figure 8.5-1 Site diagram and sampling grid for Firing Site G at TA-15.



**LOS ALAMOS NATIONAL LABORATORY
SEPTIC TANK SUMMARY SHEET
PRS 15-009(i)**

Description:

PRS 15-009(i) is an active septic tank system with an associated drain line leading to a drain pit. This system is permitted by the State of New Mexico, registered under number LA-23. The building connected to the septic tank is located west of the tank. (See attached map). The building is currently being used as the x-ray film handling site and is posted as a Radiological Controlled Area. Film cassettes that are used at all the firing sites at TA-15 and TA-36 are loaded and unloaded at TA-15-233. In some cases the film cassettes are contaminated with depleted uranium (DU) and require proper handling. The technicians that perform film handling activities use the restroom and sink to wash up. It is anticipated that building TA-15-233 will continue to be used for handling film.

Since TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Liquid samples were collected from the septic tank and submitted to a fixed laboratory for analysis. The samples were analyzed for total uranium, TAL metals, HEs, VOCs and SVOCs. Results of the analytical data from the fixed laboratory indicated total uranium undetected and no other metals above the SAL.

Cleanup:

Any remediation of this site will be deferred until the site is decommissioned.

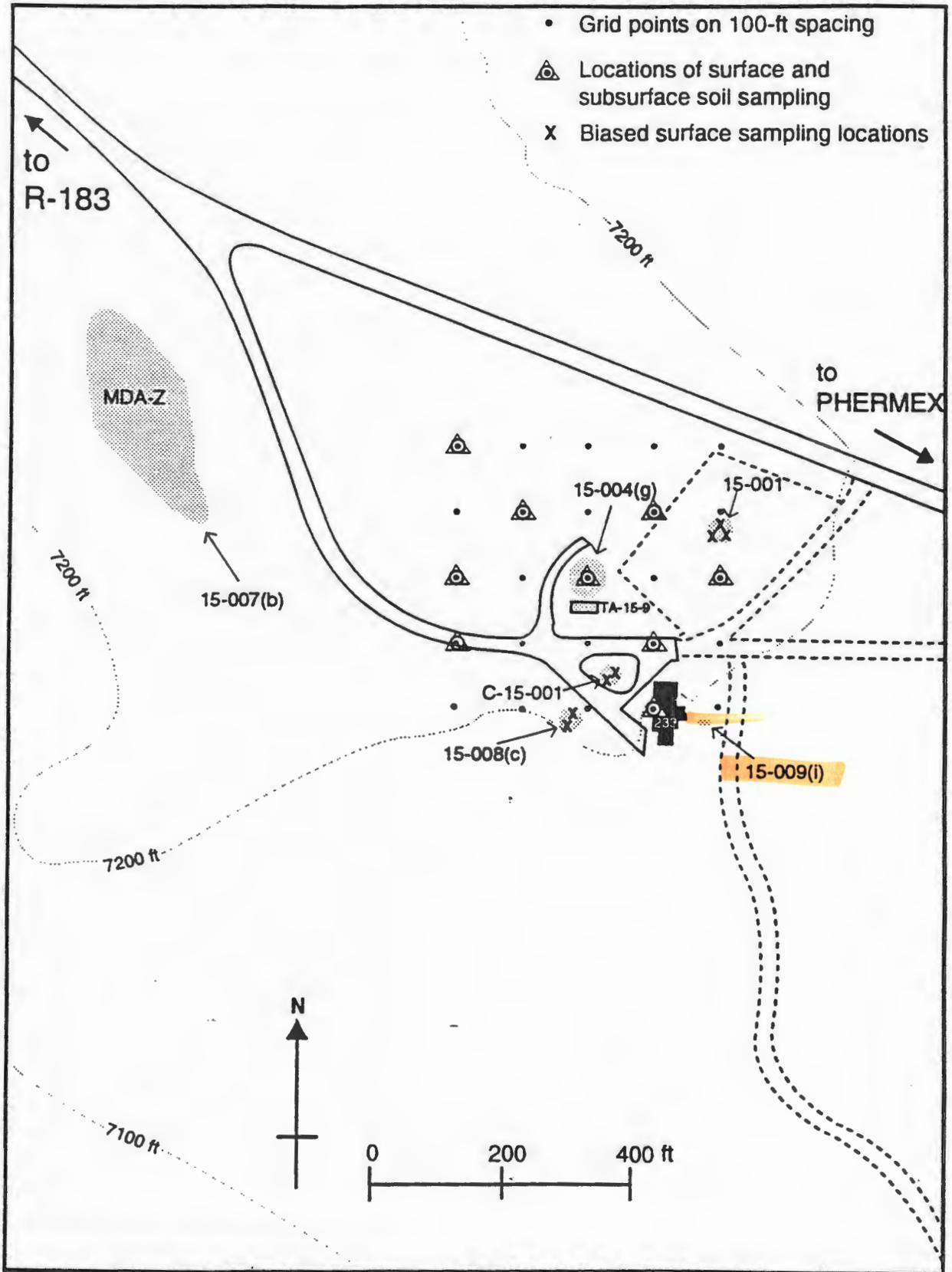


Figure 8.5-1 Site diagram and sampling grid for Firing Site G at TA-15.

**LOS ALAMOS NATIONAL LABORATORY
SOIL PILE @ FIRING SITE G SUMMARY SHEET
PRS C-15-001**

Description:

Soil Pile, PRS C-15-001 is a radioactively contaminated soil pile located within the area of Firing Site G. It was noted during a 1988 ER reconnaissance visit.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Two soil samples were collected from the PRS and submitted to an offsite laboratory for analysis. The samples were analyzed for TAL metals and total uranium. Two more samples will be collected in FY97 and submitted to an offsite laboratory for isotopic uranium analysis.

Cleanup:

Cleanup will not be determined until results of samples are analyzed.

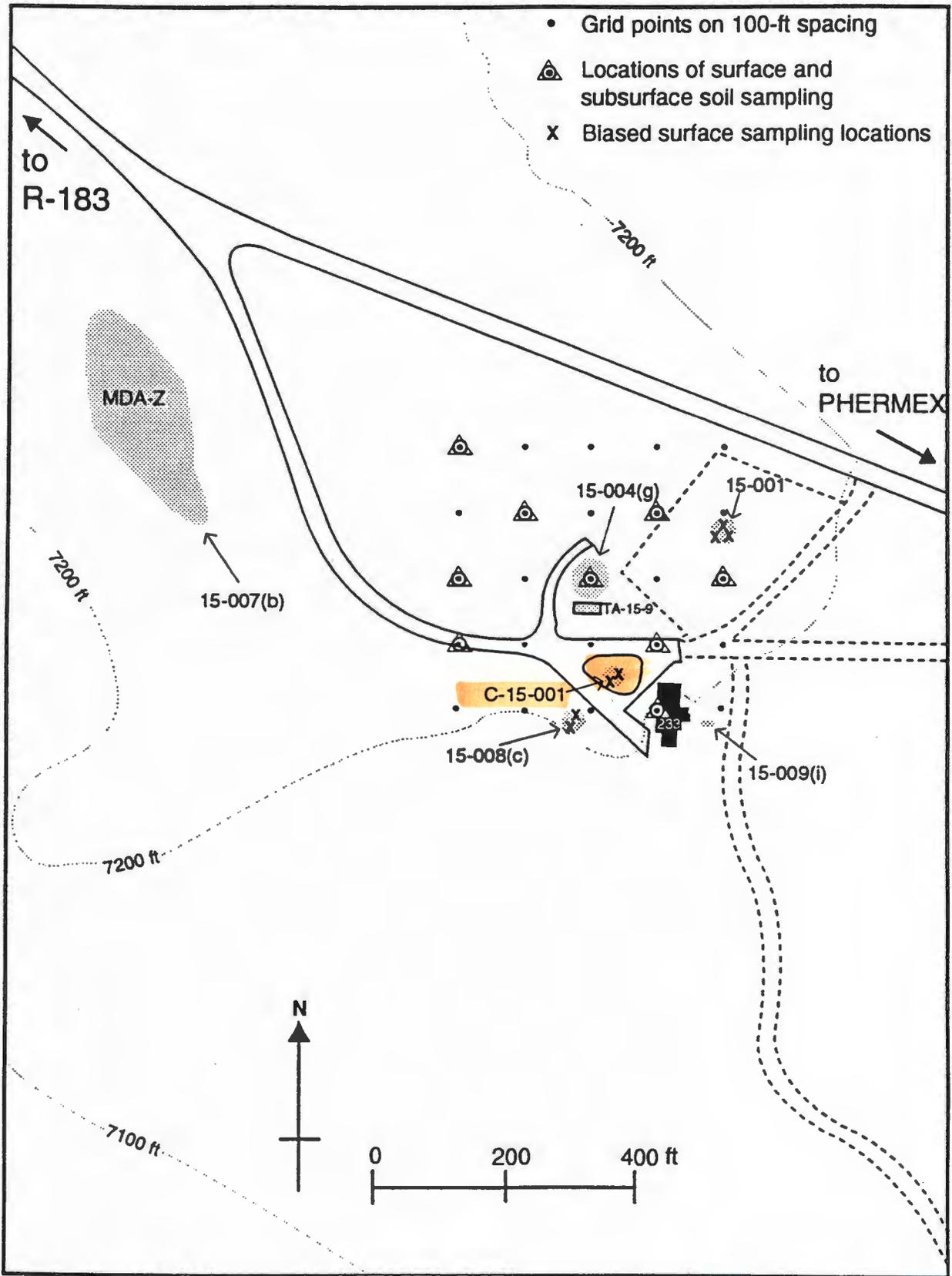


Figure 8.5-1 Site diagram and sampling grid for Firing Site G at TA-15.

**LOS ALAMOS NATIONAL LABORATORY
FIRING SITE H, SUMMARY SHEET
PRS 15-004(h)**

Description:

Firing Site H, PRS 15-004(h) is an inactive firing site located within the boundaries of the PHERMEX facility, approximately 300 feet NW of Bldg. 185 (see attached map). The site was built in 1948 and used until 1953. This PRS has the potential for uranium-238, beryllium, lead and residual HE contamination. The aerial radiological survey of 1982 show that the PHERMEX site contained the second largest concentration of radionuclides in the soil surfaces.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Twenty nine surface and subsurface samples were collected and twelve were sent to a fixed laboratory for analysis. Results of the laboratory analysis indicate uranium and lead contamination in the surface sample at the firing point only.

Cleanup:

Because this PRS is located within the hazard radius of an active site (PHERMEX) and the possibility of hazardous and contaminated debris being deposited on the surface, we have requested deferred action on this PRS until PHERMEX is decommissioned.

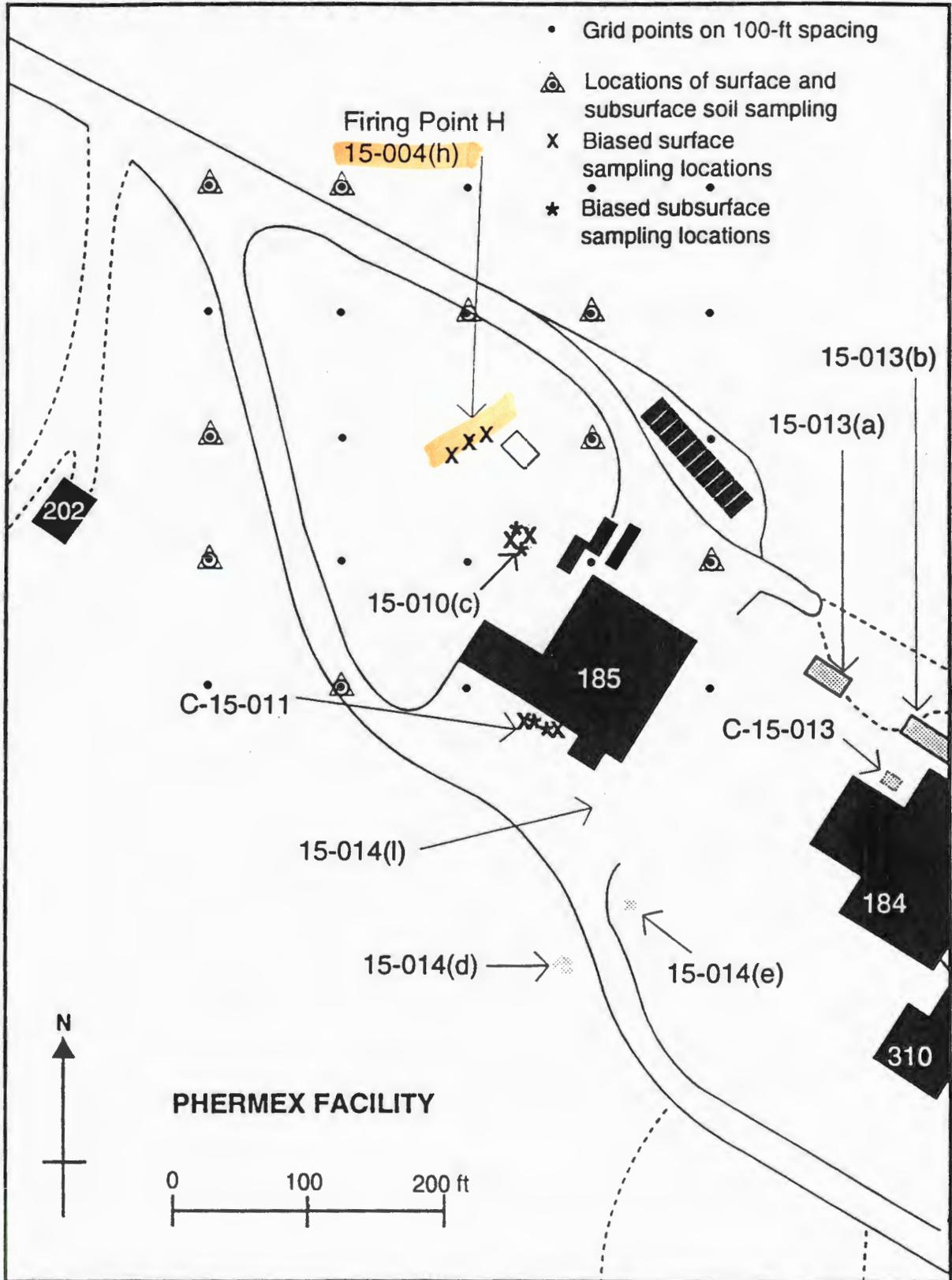


Figure 8.6-2 Site diagram and sampling plan for inactive Firing Site H, SWMU 15-004(h).

**LOS ALAMOS NATIONAL LABORATORY
UNDERGROUND FUEL STORAGE
TANK @ PHERMEX SUMMARY SHEET
PRS C-15-011**

Description:

Underground Storage Tank, PRS C-15-011 was located immediately south of Bldg. R-185 (see attached map). The tank capacity was approximately 218 gallons. It was installed in 1973 and removed in 1987. The COPCs of this PRS were VOCs and SVOCs. The location of the removed fuel tank is now under an asphalt parking lot.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

One six inch diameter hole was drilled to approximately 10 feet deep. Two samples were collected at two depths: the bottom of the previously removed tank (six feet) and three feet below that. Personnel who removed the tank reported the depth of the bottom of the tank to be six feet deep. The two samples were submitted to an offsite fixed laboratory for analysis.

Cleanup:

Based on results from the sampling data, this PRS is proposed for NFA under criterion 5.

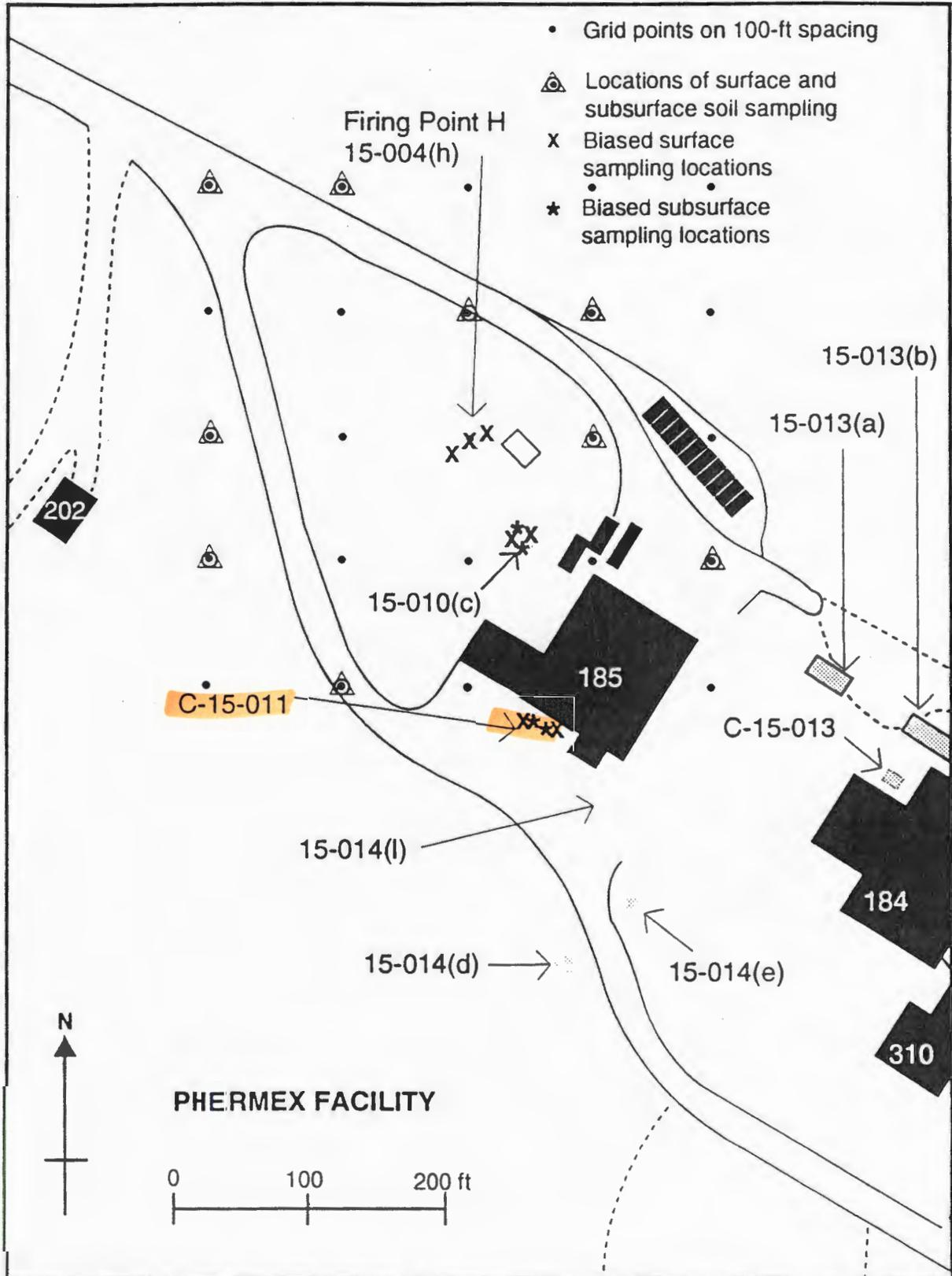


Figure 8.6-2 Site diagram and sampling plan for inactive Firing Site H, SWMU 15-004(h).

**LOS ALAMOS NATIONAL LABORATORY
DRAINLINE @ PHERMEX SUMMARY SHEET
PRS 15-010(c)**

Description:

Drainline, PRS 15-010(c) is located approximately 60 feet northwest of Bldg. R-185 at PHERMEX (see attached map). It drains off rain water through a five inches round by 105 feet long steel drain pipe south to the edge of Water Canyon. In response to the EPA NOD dated August 12, 1994, it was recommended for NFA. Because there was no response from the EPA, this PRS is recommended for NFA under criterion 2.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

No samples were collected from this PRS.

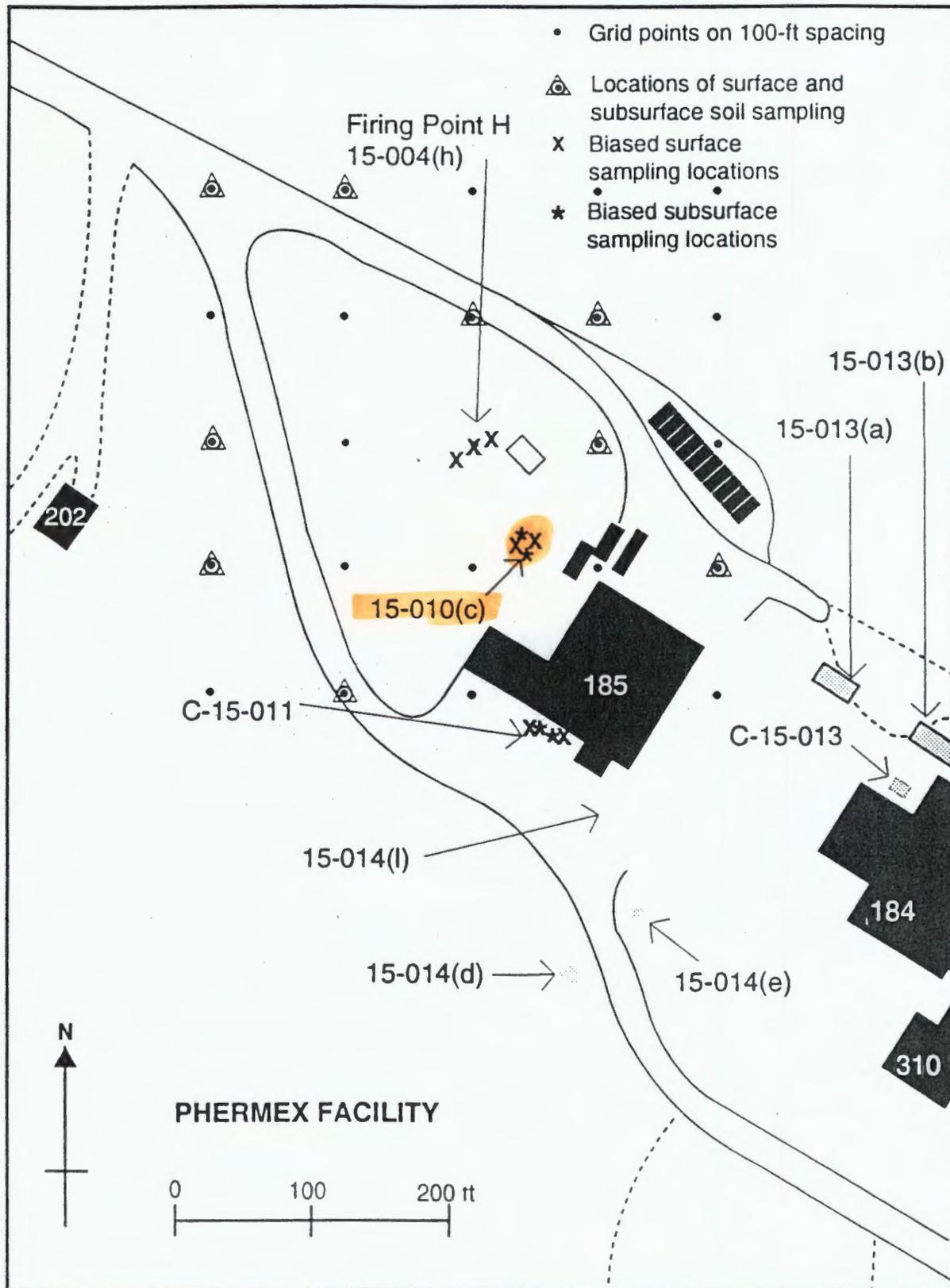


Figure 8.6-2 Site diagram and sampling plan for inactive Firing Site H, SWMU 15-004(h).

**LOS ALAMOS NATIONAL LABORATORY
OUTFALL/DRAINAGE @ PHERMEX SUMMARY SHEET
PRS 15-014(d)**

Description:

Outfall/drainage, PRS 15-014(d) is located approximately 275 feet south of the southeast corner of Bldg. R-185 (see attached map). The drain has been in service since 1961 when Bldg. R-185 was constructed. It drains surface water into Water Canyon.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

This PRS was not sampled. The drain is for surface runoff and also, the RFI Work Plan had requested NFA.

Cleanup:

No cleanup is planned for this PRS. NFA is recommended under criterion 5.

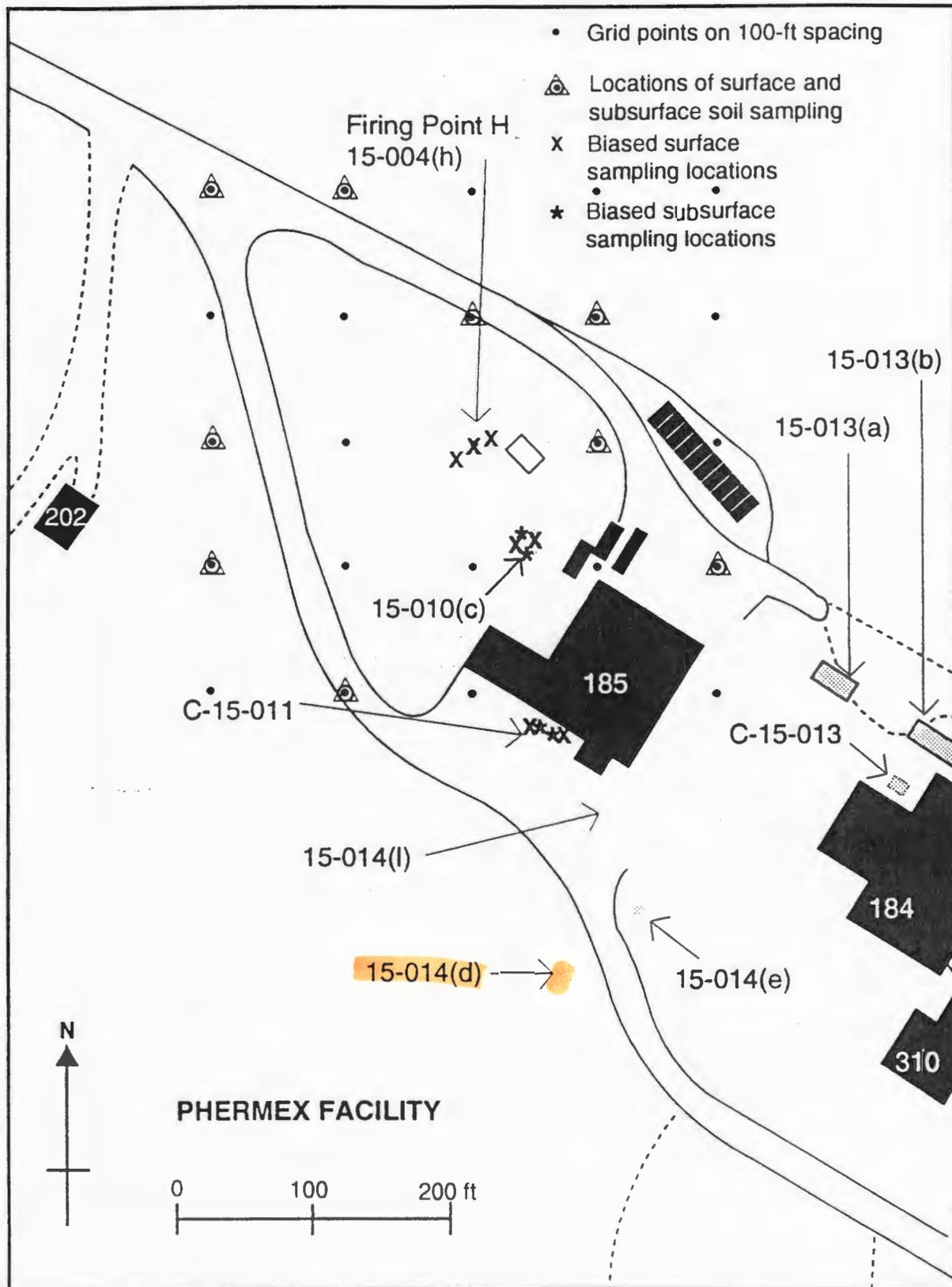


Figure 8.6-2 Site diagram and sampling plan for inactive Firing Site H, SWMU 15-004(h).

**LOS ALAMOS NATIONAL LABORATORY
OUTFALL @ PHERMEX SUMMARY SHEET
PRS 15-014(e)**

Description:

Outfall/drainline, PRS 15-014(e) is a yard drain located approximately 20 feet south and six feet east of the southeast corner of Bldg. R-184 (see attached map). The effluent is once-through cooling water and washdrains into floor drains. The yard drain (permitted outfall EPA 04-A139) is connected by a 12 inch CMP to a ditch that drains generally into Water Canyon. EPA inquired about possible use of additives in the cooling water. LANL responded that no additives had been added to the cooling water.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

This PRS was not sampled based on historical data of the building effluent into the drains. Also no response was received from the EPA on the recommendation for NFA in the Work Plan.

Cleanup:

No cleanup is planned for this PRS. NFA is recommended under criterion 5.

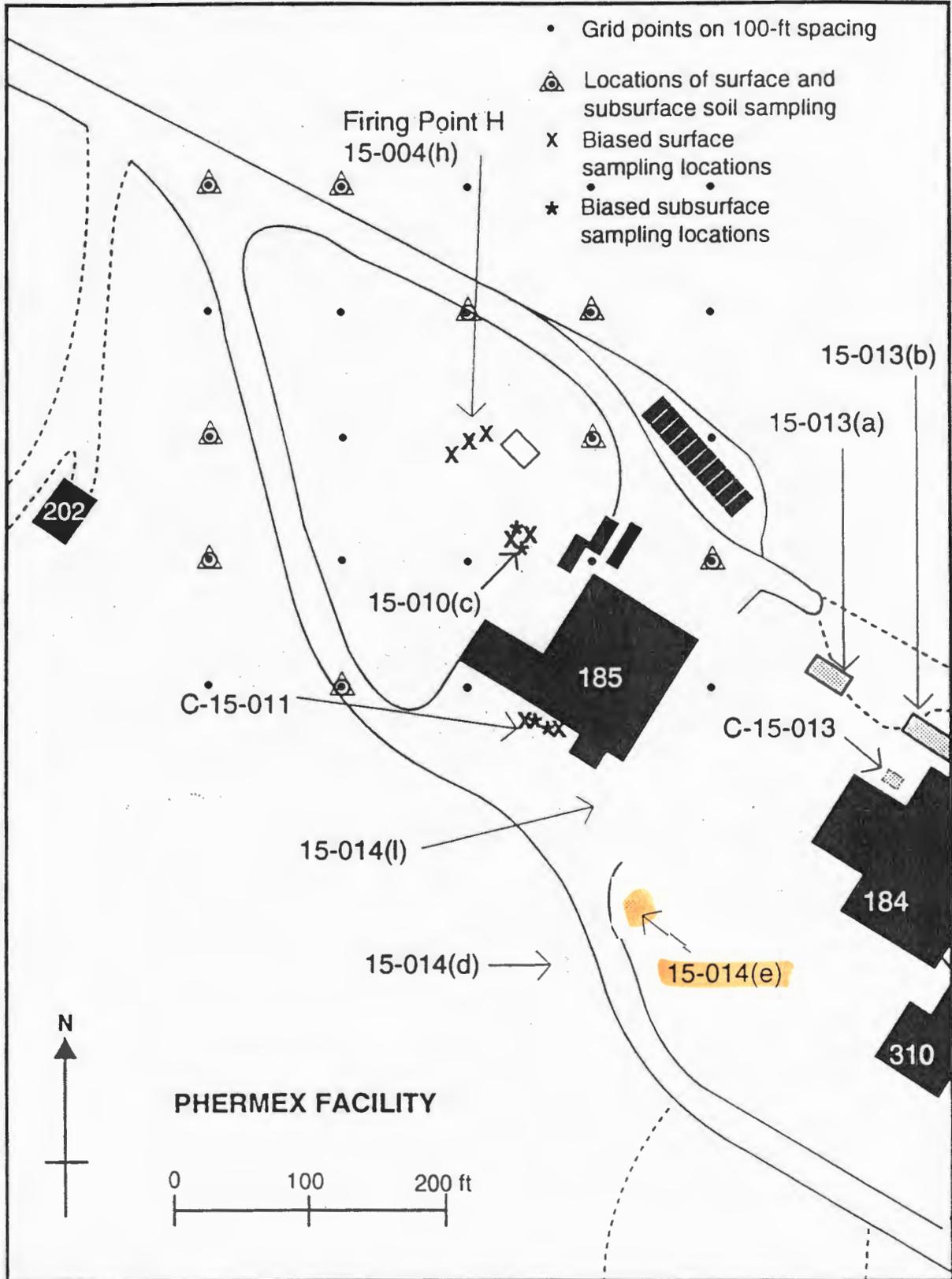


Figure 8.6-2 Site diagram and sampling plan for inactive Firing Site H, SWMU 15-004(h).

**LOS ALAMOS NATIONAL LABORATORY
OUTFALL AT PHERMEX SUMMARY SHEET
PRS 15-014(l)**

Description:

Outfall PRS 15-014(l) is located at the base of the cooling tower (see map). Water was taken into the cooling tower basin from the main water supply. The only additive added to the cooling tower water was sodium molybdate, for anti-corrosion, at a concentration of less than 200 ppm.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

This PRS was not sampled, based on historical data of the cooling tower water, which offers no contaminants into the outfall or drain lines. Also, no response was received from EPA on the recommendation for NFA in the work plan.

Cleanup:

No cleanup of this PRS is planned. NFA is recommended under Criterion 5.

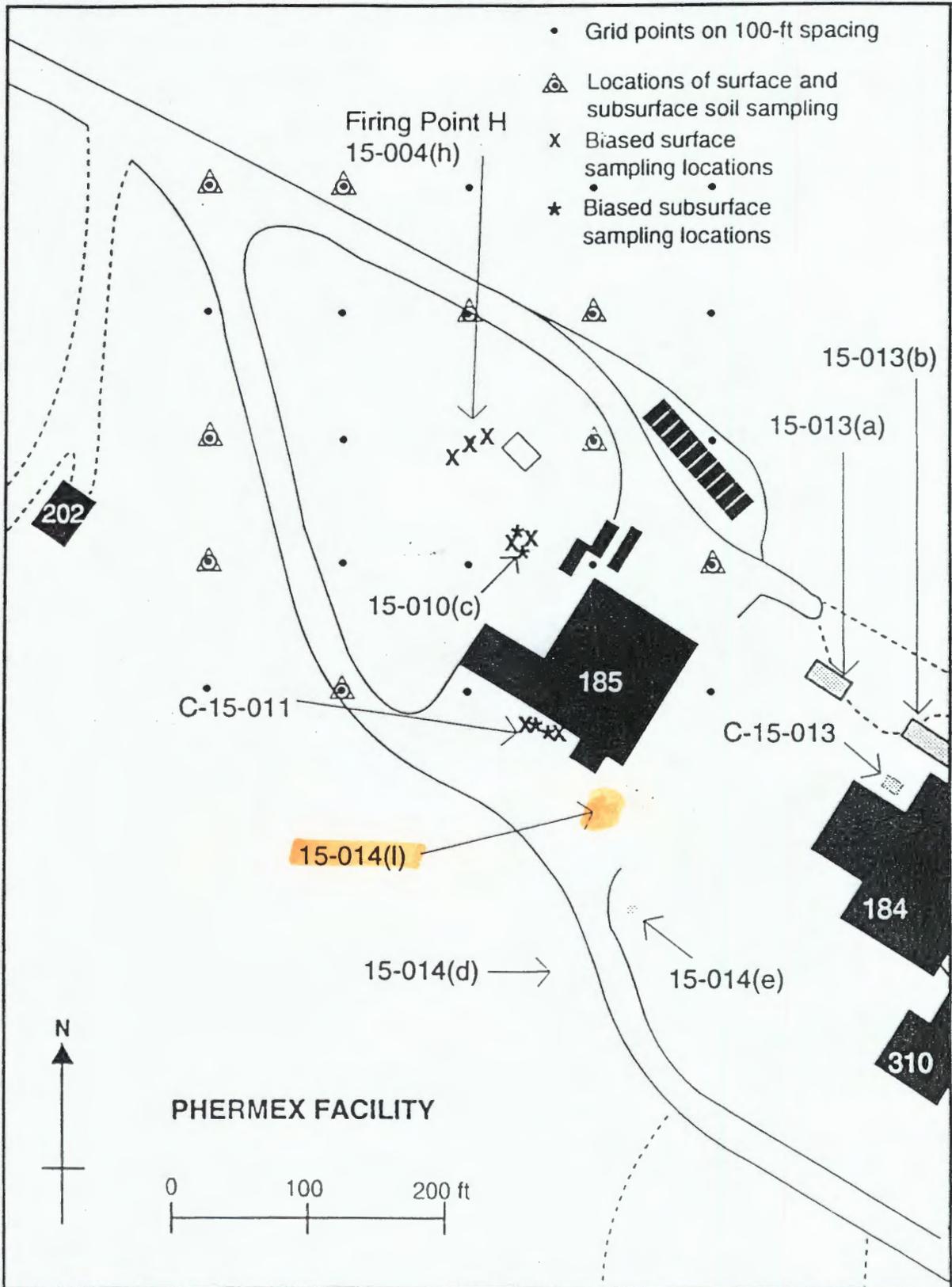


Figure 8.6-2 Site diagram and sampling plan for inactive Firing Site H, SWMU 15-004(h).

**LOS ALAMOS NATIONAL LABORATORY
SEPTIC TANK @ THE HOLLOW SUMMARY SHEET
PRS 15-009(a)**

Description:

Septic Tank, PRS 15-009(a) is an active system located approximately 8 1/2 feet southwest of Bldg. R-50 at the Hollow (see attached map). It is constructed of reinforced concrete that accepts influent of sanitary waste from Bldg. R-20, and a sink and water fountain from Bldg. R-50. There is no evidence that hazardous materials are being disposed of here. There is a seepage pit associated with the septic tank. It is located approximately 85 feet west. The seepage pit is a four foot diameter by 50 foot deep pit that was constructed in the mid 1970s. The septic tank was sampled in 1981 for HE. None were detected.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

One sample was collected from the septic tank and submitted to an offsite fixed laboratory. Analytical results did not indicate any COPCs.

Cleanup:

Because this is an active system, we have requested it be deferred from further action until decommissioning.

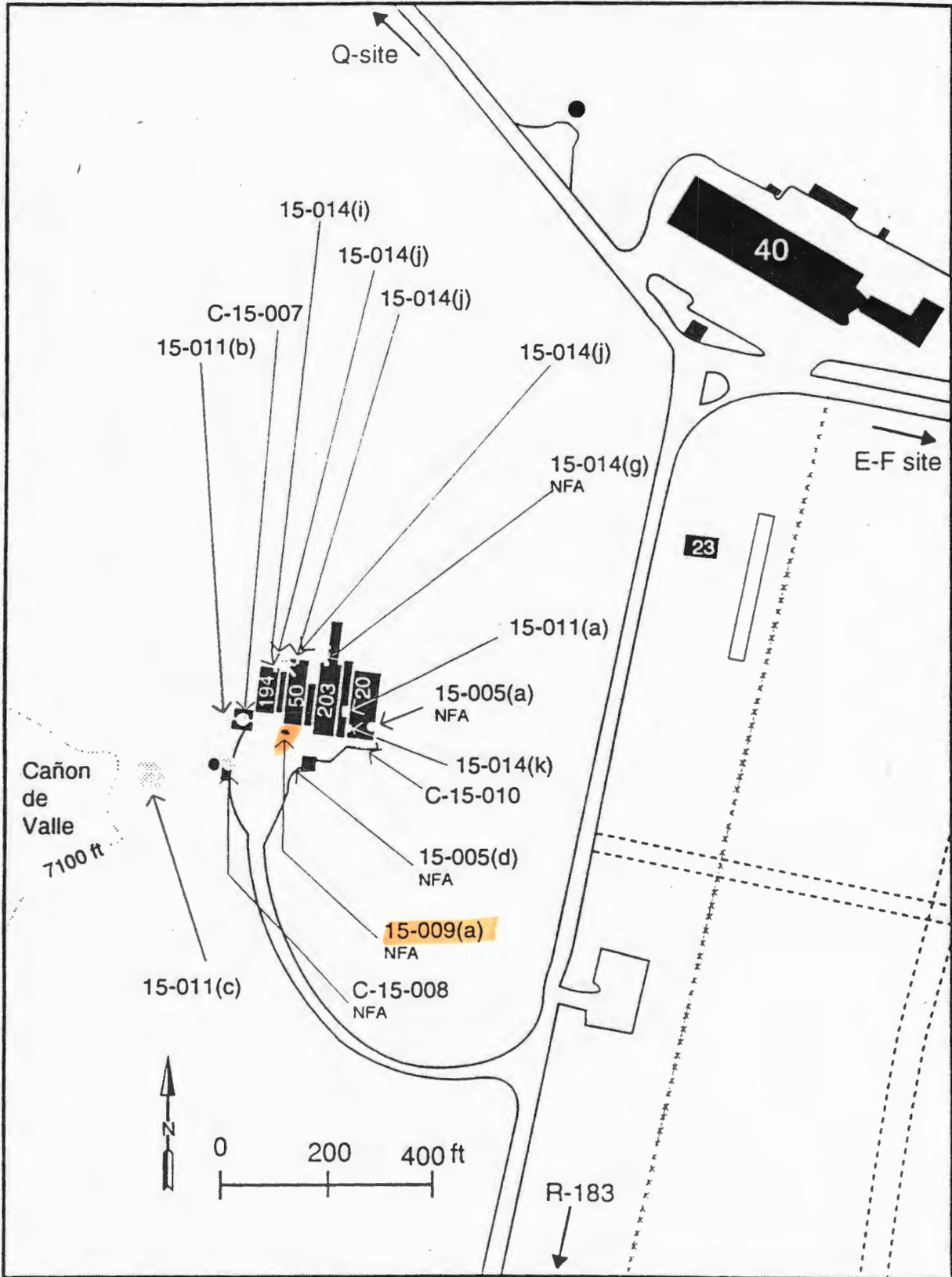


Figure 10.1-1 Buildings and PRSs in The Hollow.

**LOS ALAMOS NATIONAL LABORATORY
REMOVED SUMP @ THE HOLLOW SUMMARY SHEET
PRS 15-011(a)**

Description:

Removed Sump, PRS 15-011(a). This PRS is not a sump as described in the RFI Work Plan. It is however, a group of concrete trench drains which eventually drains to outfall 15-011(c). The concrete drains are in good repair with no evidence of cracks.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

There is no sample media available for sampling. The outfall of PRS 15-011(c) was sampled with no elevated COPCs.

Cleanup:

Based on the fact that no COPCs were detected at the outfall and no sampling media exists at the concrete drain, NFA is recommended under criterion 1.

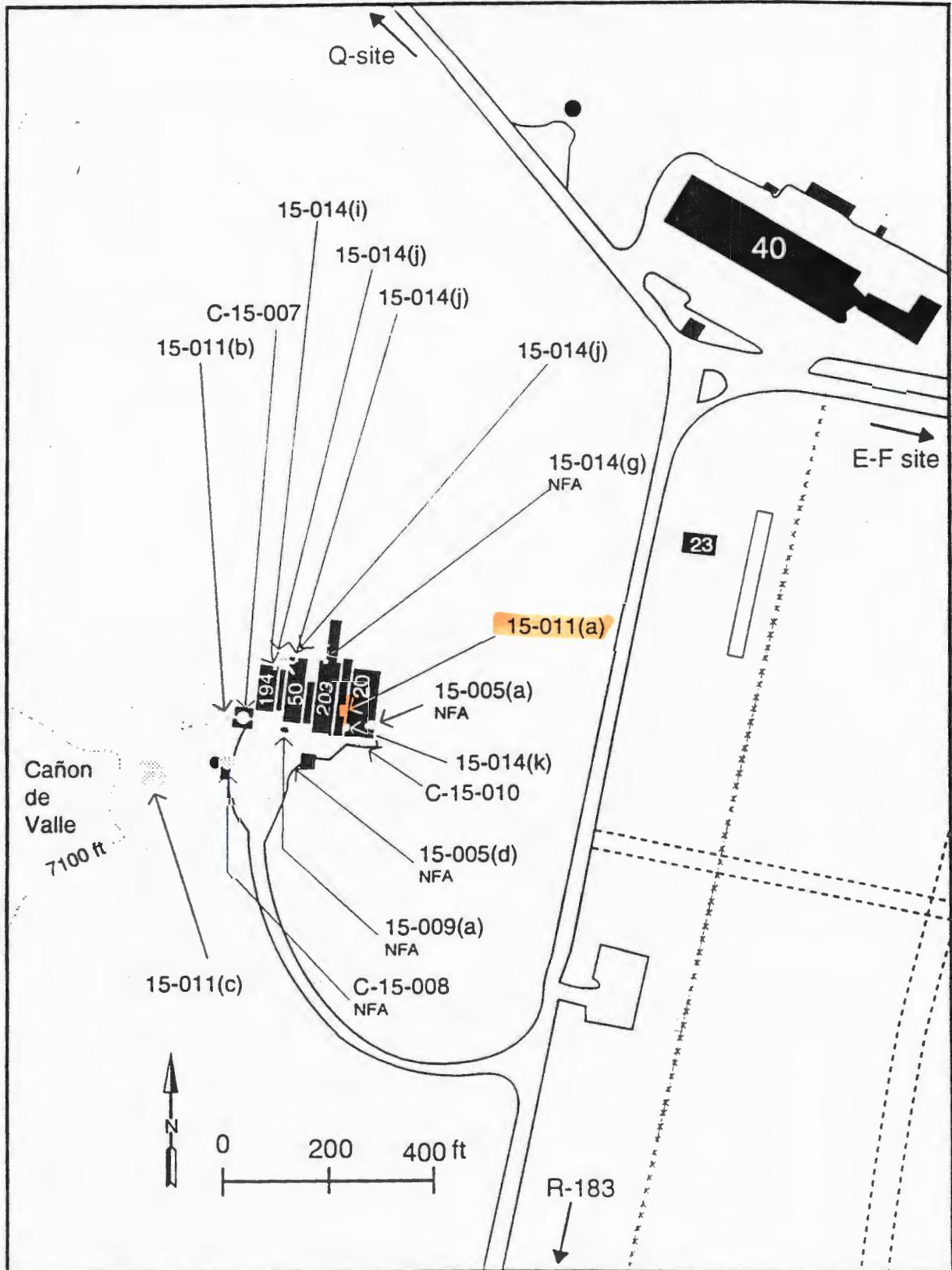


Figure 10.1-1 Buildings and PRSs in The Hollow.

**LOS ALAMOS NATIONAL LABORATORY
DRAINLINE @ THE HOLLOW SUMMARY SHEET
PRS 15-011(b)**

Description:

Drainline, PRS 15-011(b), is a dirt drainage ditch located southwest of Bldg. R-194 (see attached map). This drainage ditch may have received degreasers, solvents containing sulfuric acid, and/or hydrochloric acid or radioactivity. This drainage ditch leads to PRS 15-011(c).

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Two samples were collected from this drainage ditch and submitted to an offsite fixed laboratory for analysis. Samples were analyzed for HE, total uranium, TAL metals and SVOCs. The subsurface sample was also analyzed for VOCs.

Cleanup:

Based on analytical results and criterion 5, this PRS is proposed for NFA.

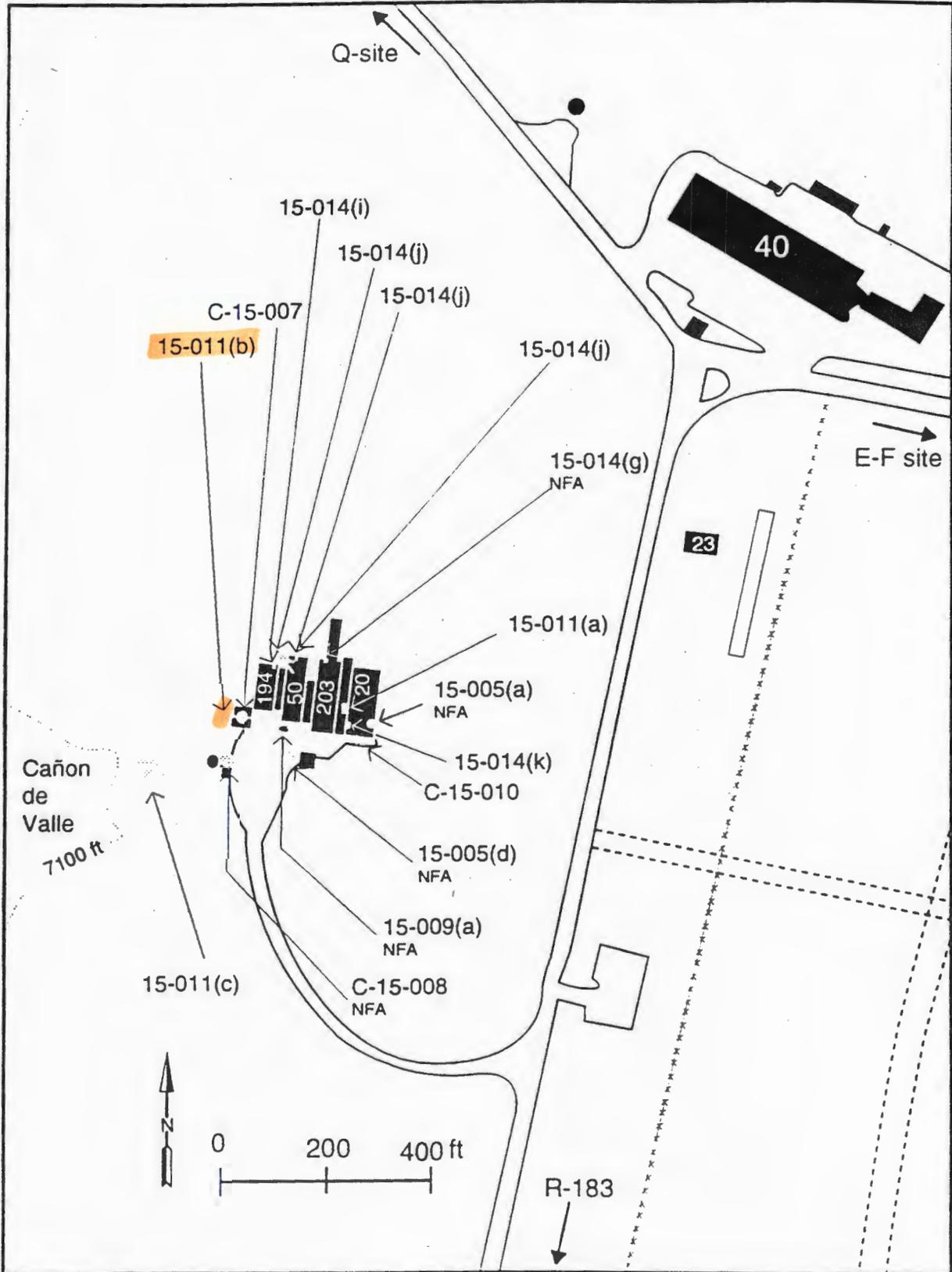


Figure 10.1-1 Buildings and PRSs in The Hollow.

**LOS ALAMOS NATIONAL LABORATORY
OUTFALL @ THE HOLLOW SUMMARY SHEET
PRS 15-011(c)**

Description:

Outfall, PRS 15-011(c) is located at the edge of the mesa top where all the outfalls from operations within the buildings in "The Hollow" combine to flow into Canon de Valle. The intersection of the drainages is approximately 100 feet below the elevation of the buildings (see attached map). COPCs of this PRS included uranium, beryllium, lead, chromium, VOCs and SVOCs.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Four soil samples were collected along the drainage. The samples were submitted to an offsite fixed laboratory for analysis. They were analyzed for TAL metals, uranium, VOCs and SVOCs.

Cleanup:

Based on analytical data results, NFA is proposed for the PRS under criterion 5.

**LOS ALAMOS NATIONAL LABORATORY
OUTFALL @ THE HOLLOW SUMMARY SHEET
PRS 15-014(g)**

Description:

Outfall, PRS 15-014(g) is located 11 feet east of the northwest corner of Bldg. R-203 (see attached map). It is a drain that was used for a once-through cooling water for a water cooled air compressor. The water eventually drained into a ditch which emptied into Canyon de Valle. The air compressor was removed from service. This outfall was permitted by the EPA under permit number 04A093. The COPCs associated with this PRS are uranium, beryllium, lead, chromium, VOCs and SVOCs.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

A soil sample was collected from this PRS and submitted to an offsite laboratory for analysis, and to DX-2 at LANL for HE. The sample was analyzed for TAL metals, VOCs, HE and total uranium. Laboratory analysis did not indicate elevated levels of COPCs.

Cleanup:

Based on the analytical data results and criterion 5, NFA is recommended for this PRS.

**LOS ALAMOS NATIONAL LABORATORY
OUTFALL AT THE HOLLOW SUMMARY SHEET
PRS 15-014(i)**

Description:

Outfall PRS 15-014(i) is a drainage from the top of Building R-194 and the roof of a shelter between Buildings R-194 and R-50 (see map). The buildings have had various uses as assembly building, laboratory, and shops. They are currently still active sites. The COPCs for this PRS include uranium, beryllium, lead, chromium, VOCs, and SVOCs.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Two samples were collected from this PRS and submitted to an offsite laboratory for analysis. The samples were analyzed for TAL metals, total uranium, HE, SVOCs, and VOCs.

Cleanup:

Based on analytical data results and Criterion 5, this PRS is recommended for NFA.

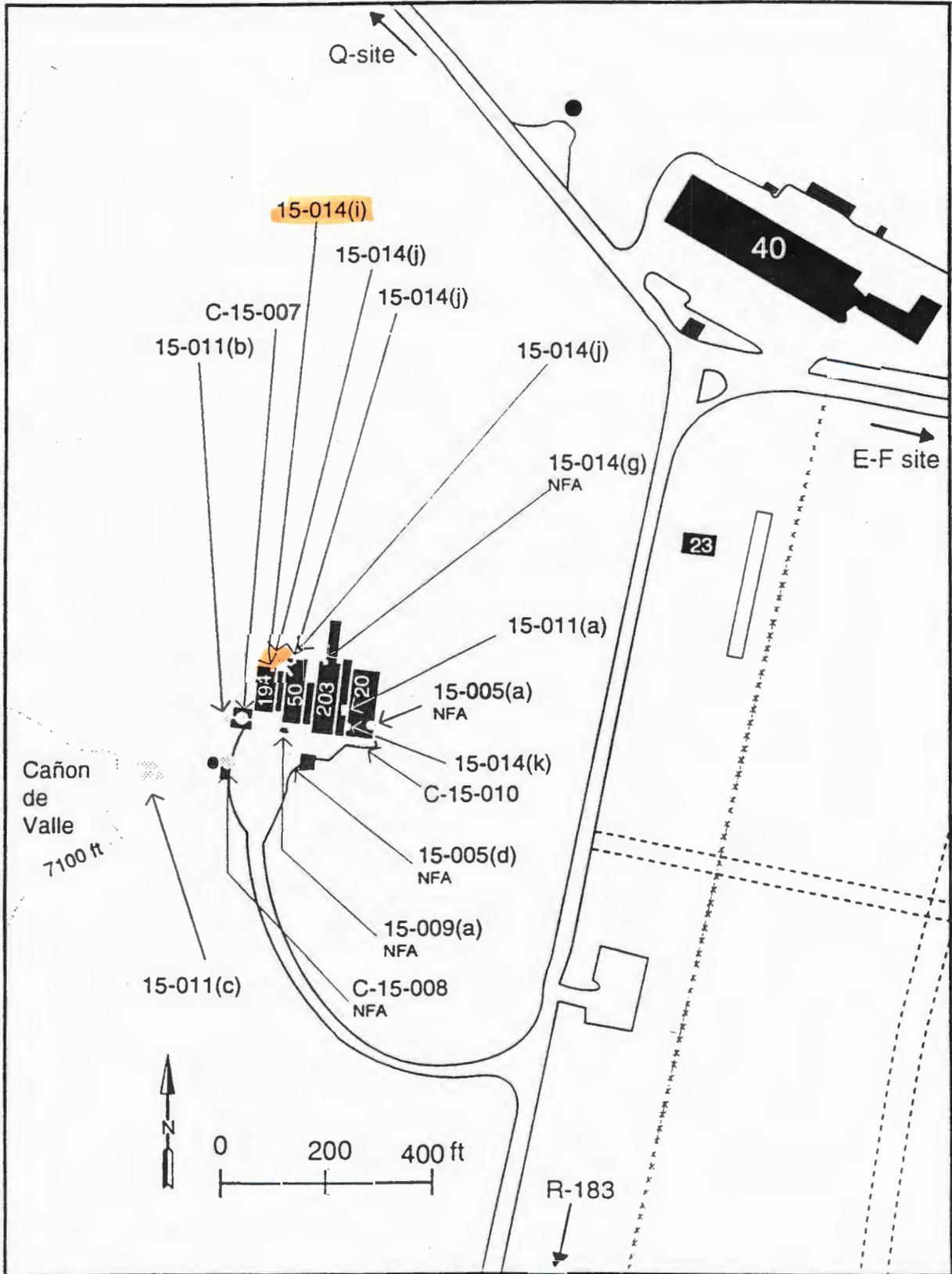


Figure 10.1-1 Buildings and PRSs in The Hollow.

**LOS ALAMOS NATIONAL LABORATORY
OUTFALL AT THE HOLLOW SUMMARY SHEET
PRS 15-014(j)**

Description:

Outfall PRS 15-014(j) consisted of three outfalls from Building R-50 (see map). This consists of a drainage channel that was partially asphalt, just below the outfall, leading towards the canyon. The building at the site associated with the PRS is still in use at LANL. COPCs for this PRS include uranium, beryllium, lead, chromium, VOCs, and SVOCs.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Five samples were collected at this PRS and associated drainages. They were submitted to an offsite laboratory for analysis. The samples were analyzed for TAL metals, uranium, VOCs, and SVOCs.

Cleanup:

Based on the analytical data results and Criterion 5, this PRS is recommended for NFA.

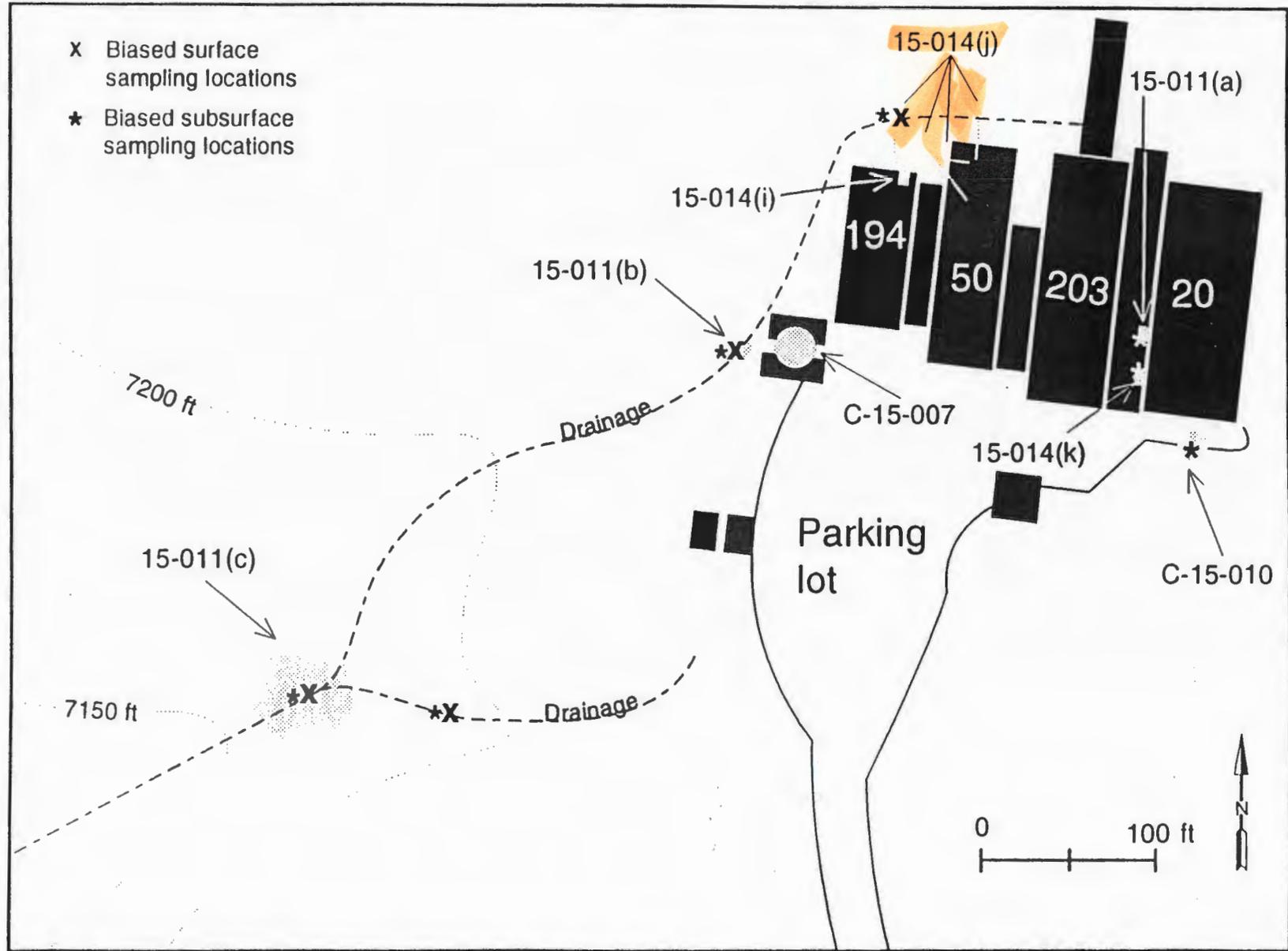


Figure 10.1-3 Site diagram and sampling plan for PRSs in The Hollow.

**LOS ALAMOS NATIONAL LABORATORY
DRAIN AT THE HOLLOW SUMMARY SHEET
PRS 15-014(k)**

Description:

Drain PRS 15-014(k) consists of open concrete trench drains located west of Building R-20 (see map), which drained Building R-20 to a sump, which in turn drained to an outfall at the edge of Water Canyon. The drain lines did not contain any visible evidence of cracks. This outfall eventually drains into PRS 15-011(c), which was sampled. Any contaminants transported from this PRS would have been detected in PRS 15-011(c), but none were found.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Because this PRS consists of concrete drain trenches, there was no sample media available for sampling. Thus, no samples were collected.

Cleanup:

Based on the fact that there was no contamination detected at PRS 15-011(c), and no sample media available at this PRS, and on Criterion 5, NFA is recommended for this PRS.

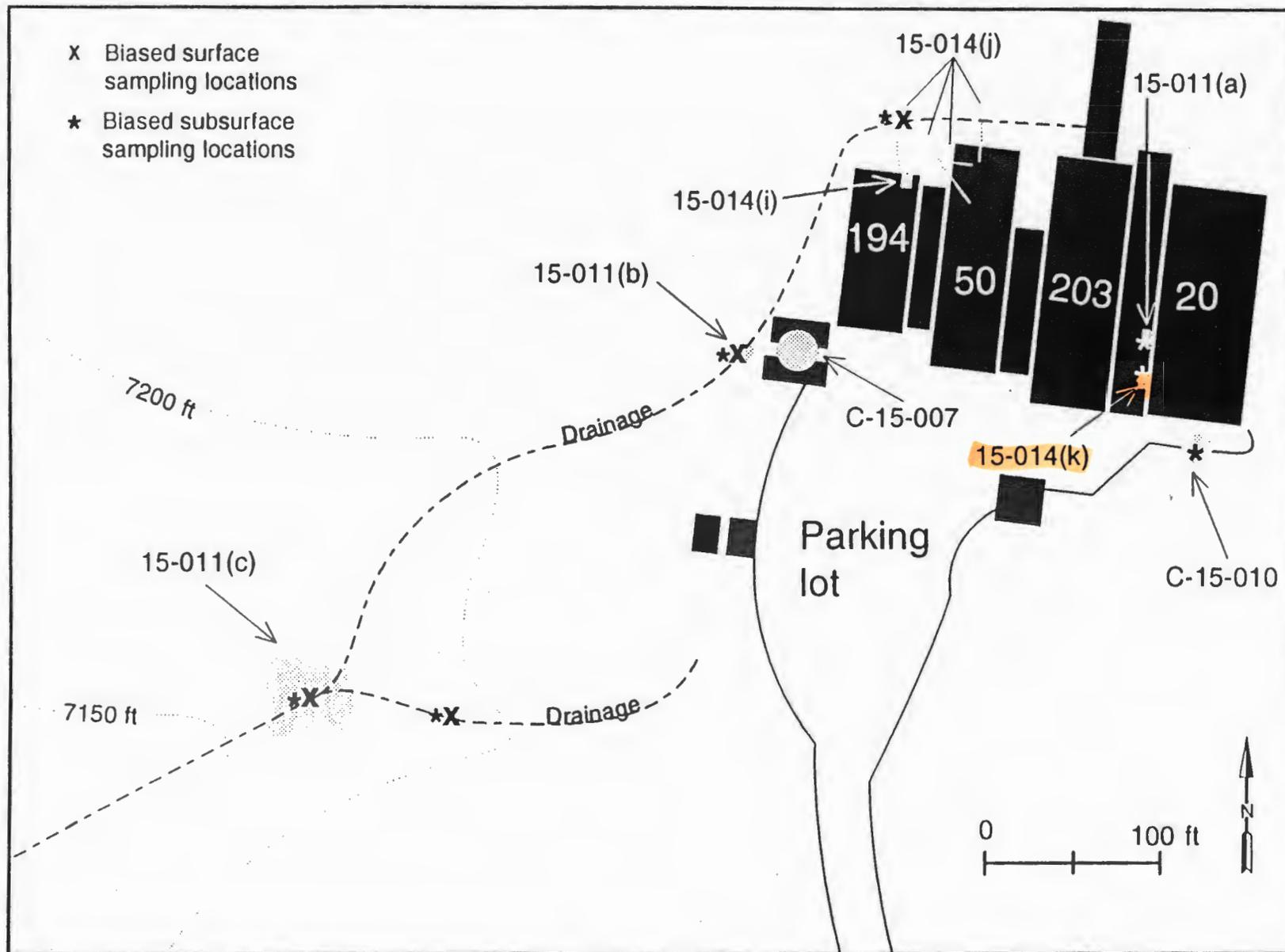


Figure 10.1-3 Site diagram and sampling plan for PRSs in The Hollow.

**LOS ALAMOS NATIONAL LABORATORY
STAINED SOIL SUMMARY SHEET
PRS C-15-007**

Description:

The stained soil area, PRS C-15-007 is located SW of Bldg. R-194 in "The Hollow" (see attached map). It was noted the soil is stained, but is covered by a metal building (transportainer) and not visible until the temporary building is removed.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

No sampling has occurred as the spot is not accessible until the metal building is removed. This is an active site.

Cleanup:

Depending what is found, appropriate cleanup activities and confirmatory sampling will occur. Phase I activities are planned for FY97.

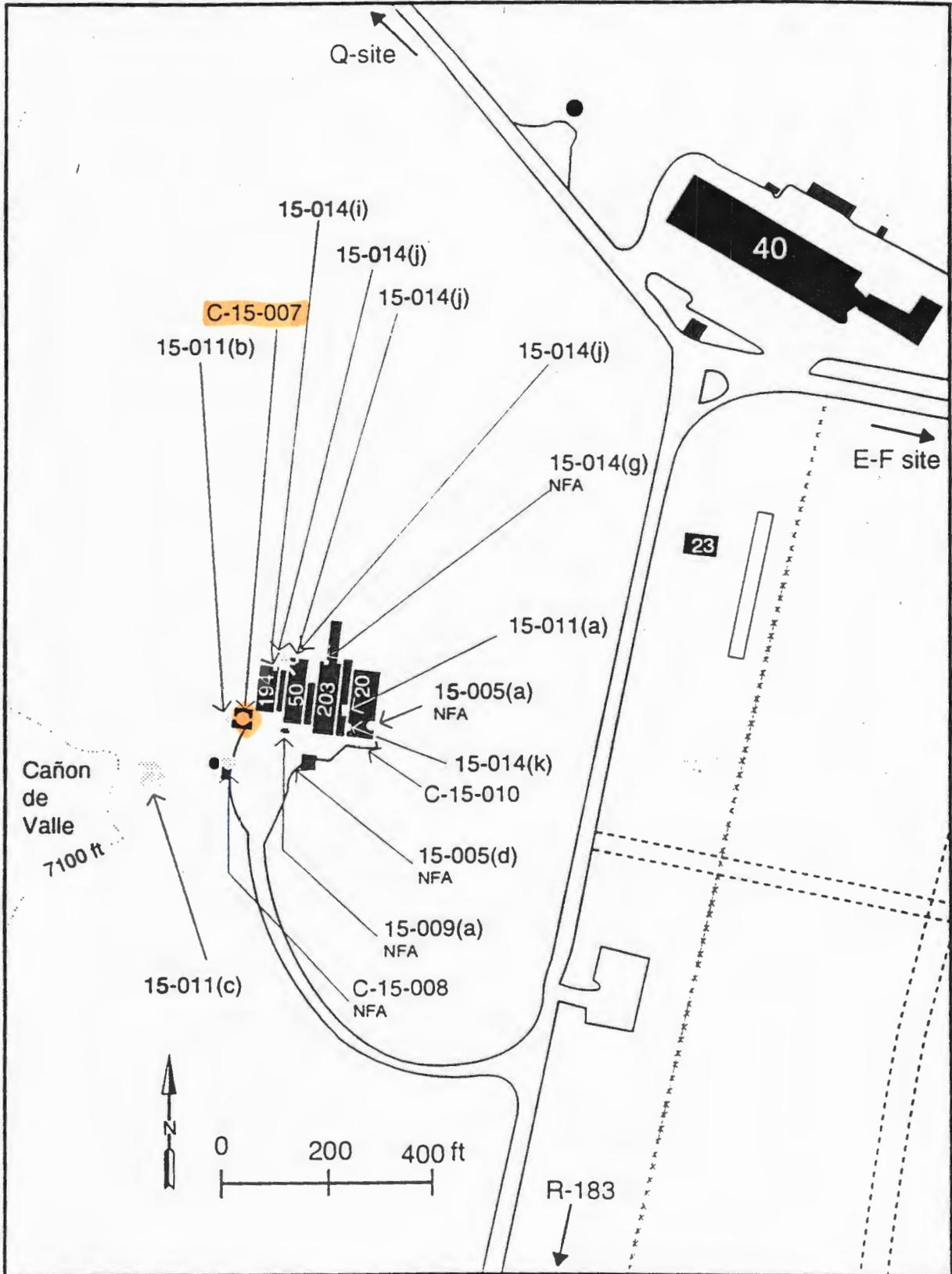


Figure 10.1-1 Buildings and PRSs in The Hollow.

**LOS ALAMOS NATIONAL LABORATORY
REMOVE FUEL TANK @ THE HOLLOW SUMMARY SHEET
PRS C-15-010**

Description:

Removed Fuel Storage Tank, PRS C-15-010 was a buried fuel storage tank measuring approximately 15 to 20 feet long by 7 feet wide. It was located 15 feet south of Bldg. R-20 (see attached map). The underground storage tank contained diesel fuel. The tank was removed in 1989. The COPCs associated with the tank include uranium, beryllium, lead, chromium, VOCs and SVOCs. Two soil samples were collected at depths of 18 to 24 inches from the area associated with the tank and submitted to an offsite fixed laboratory for analysis. Samples were analyzed for TAL metals, VOCs, SVOCs and uranium. All samples were field screened for radiological contamination and the HE spot test.

Because TA-15 is an active explosives testing area, access into different areas is closely controlled and requires the following:

- Log in at Access Control at TA-15-183
- Exchange badge and secure barrier key
- Verify site specific training conducted
- Verify "off road" training is conducted if activities will take you off paved area
- Assignment of two-way radio
- Brief of days activities
- Monitoring of feet before leaving area visited

Characterization:

Phase I sampling indicated that there may be some contamination from the fuel tank. However, the sampling was not sufficient to determine the nature and extent of any contamination. Therefore Phase II sampling is recommended for this PRS. Phase I sampling detected several PAHs: TPH, BTEX and other organic constituents associated with diesel fuel, and are also considered COPCs for the PRS.

Cleanup:

A Phase II is planned for FY97 to determine the extent of cleanup required.

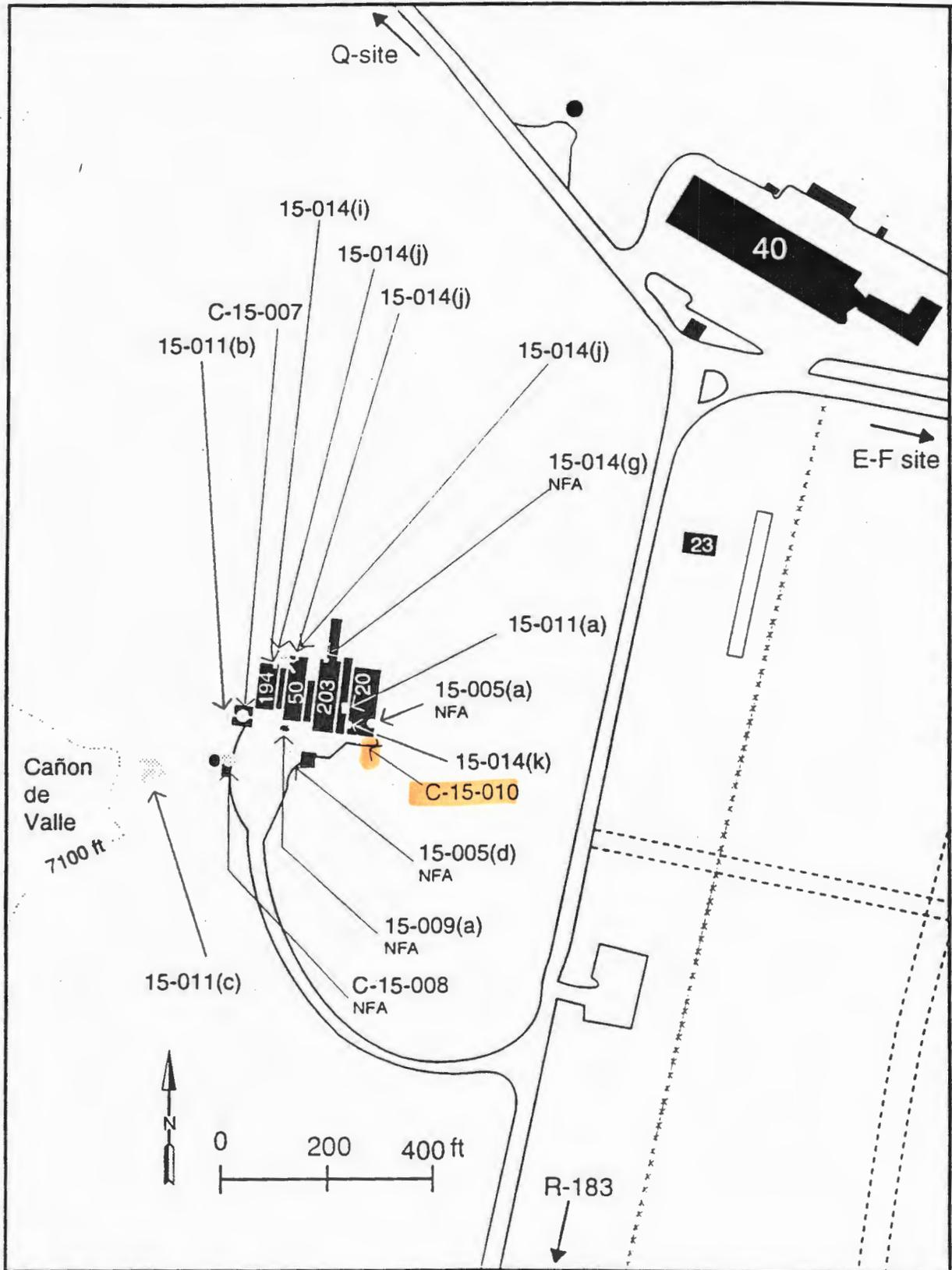


Figure 10.1-1 Buildings and PRSs in The Hollow.

**LOS ALAMOS NATIONAL LABORATORY
OIL STAIN SUMMARY SHEET
PRS 15-012(a)**

Description:

Discarded vacuum pump oil, PRS 15-012(a). This PRS has never been located or determined. Because the amount of pump oil must have been small in order for it not to be detected, we recommend NFA under criterion 1.