PRS 15-009(j)

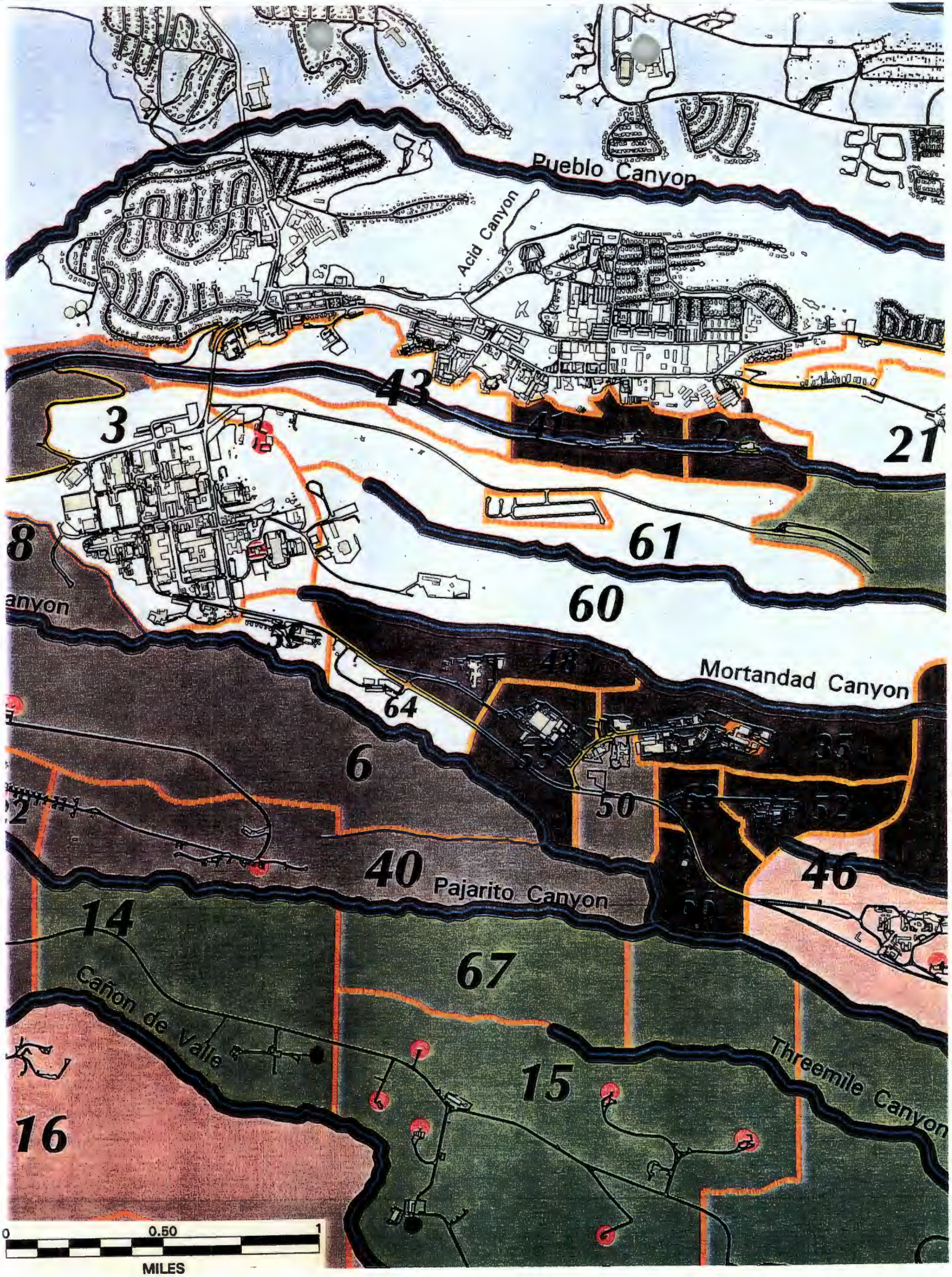
Septic Tank
TA-15
SRS Score = 47
HSWA Module

4187

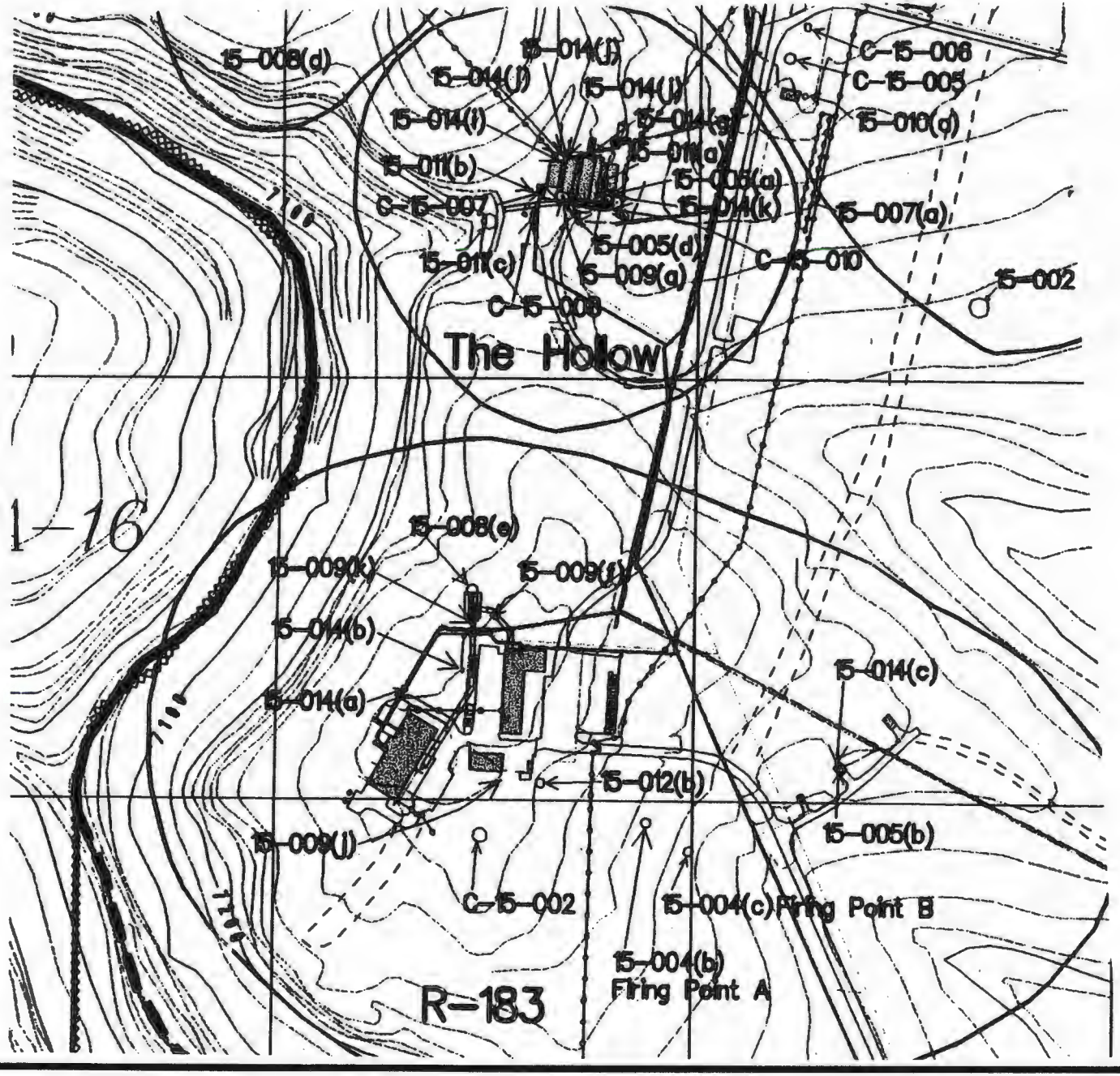
Los Alamos National Laboratory
Environmental Restoration Project

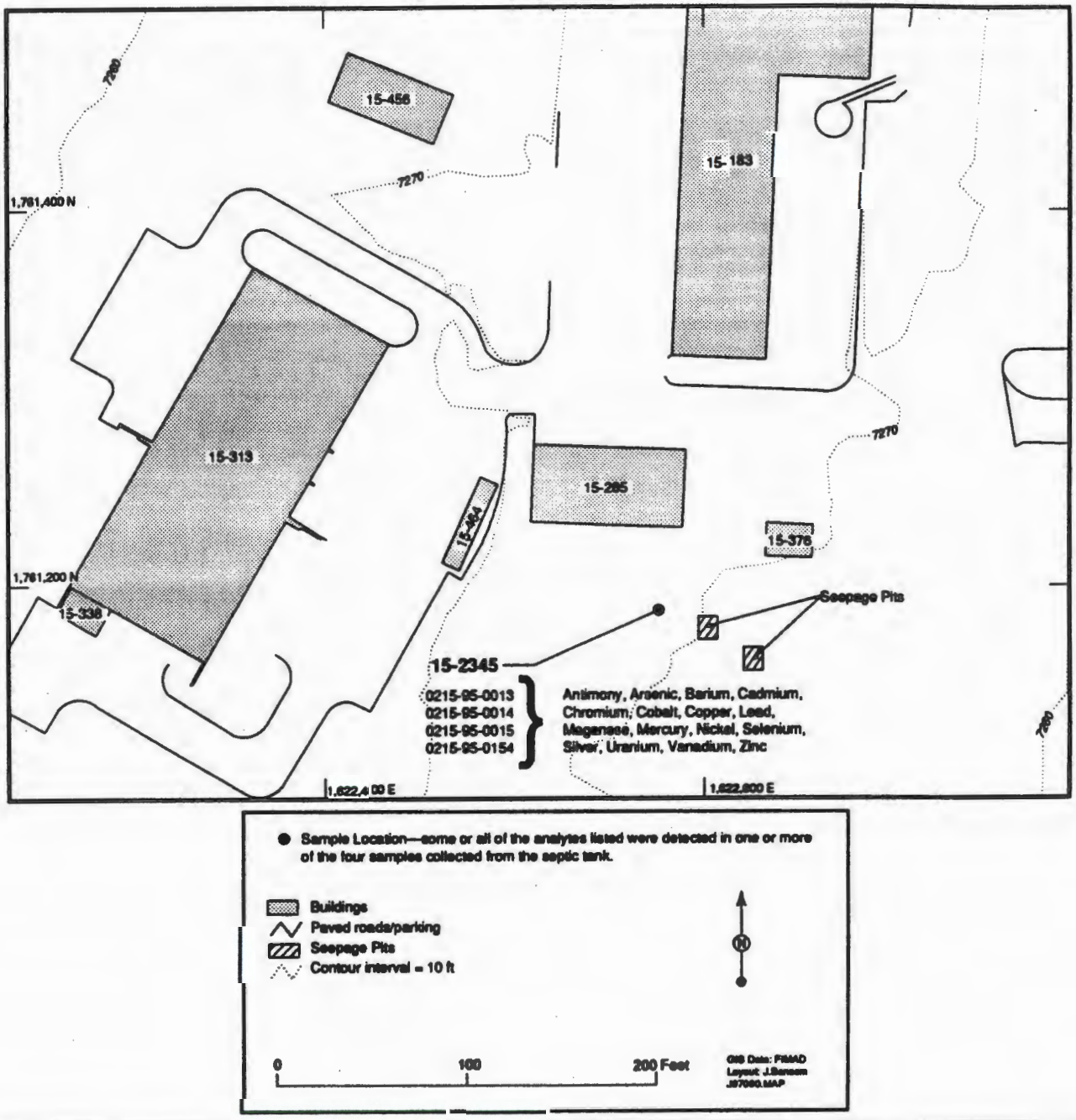
VG-97-043 (19)

6/10/97



Pueblo Canyon
Acid Canyon
43
3
21
8
61
60
anyon
Mortandad Canyon
64
6
50
40
Pajarito Canyon
46
14
67
Cañon de Valle
Threemile Canyon
15
16
0
0.50
1
MILES


15-008(d)
15-014(j)
15-014(j)
15-014(j)
15-014(i)
15-014(a)
15-011(a)
15-011(b)
15-005(a)
C-15-007
15-014(k)
15-007(a)
15-005(d)
15-011(c)
15-009(a)
C-15-010
15-002
C-15-008
C-15-006
C-15-005
15-010(a)
The Hollow
1-16
15-008(e)
15-009(k)
15-009(f)
15-014(b)
15-014(c)
15-014(a)
15-012(b)
15-009(j)
15-005(b)
C-15-002
15-004(c) Firing Point B
15-004(b)
Firing Point A
R-183



Los Alamos National Laboratory
Environmental Restoration Project

VG-97-043 (21)

SEPTIC TANK @ R-285

Septic & Drain @ R-285

PRS Description

- PRS 15-009(j) is an inactive septic tank
  - tank dimensions approximately 4 x 6 x 8 ft
- Location - within secured boundaries of TA-15
  - located approximately 50 - 75 ft SE of Building R-285
- Land slope @ 1% away from canyon
- Serviced Building R-285 only
  - one toilet, shower, sink, janitor's sink, and water fountain

PRS Description (continued)

- Not on list of 684 PRSs in or near water courses
- Constructed in 1981
  - in 1992 tank pumped out, inlet and outlets plugged, and tank disconnected
  - constructed of reinforced concrete
  - capacity ~ 1,500 gallons
  - connected in series to two 4 ft diameter by 50 ft deep seepage pits

PRS Description (concluded)

- Nearest water course approximately 1/4 mile (Canyon de Valle)
- RFI report dated November 1995 contains results
- Land use scenario - continued Laboratory (LANL) usage

PRS Characterization

- Tank at any given time contains < 1 gallon of liquid and < 5 gallons of dried materials
- Screened for radioactivity (alpha, beta, and gamma)
- Four water samples collected and submitted to fixed laboratory in 1995 in accordance with approved work plan
- One sample analyzed for HE, radionuclides, total uranium, and TAL metals
- Three samples analyzed for radionuclides, total uranium, and TAL metals

PRS Characterization (concluded)

- Tank inspected in May 1997 and verified to be empty of liquids
- Analytical results indicate that antimony, arsenic, barium, cadmium, chromium, cobalt, copper, lead, manganese, mercury, nickel, selenium, silver, uranium, vanadium, and zinc are present
- No HE detected

Analytical Results

Sample ID	Depth (in.)	Antimony (µg/L)	Arsenic (µg/L)	Barium (µg/L)	Cadmium (µg/L)	Chromium (µg/L)	Cobalt (µg/L)	Copper (µg/L)	Lead (µg/L)
RCRA Waste Toxicity Characteristics	N/A	Not Available	5000	100000	1000	5000	Not Available	Not Available	5000
0215-95-0013	N/A	<4	42	930	51	380	62	2100	1100
0215-95-0014	N/A	55	120	2300	120	880	150	6300	2800
0215-95-0015	N/A	65	110	2100	110	910	140	6000	2600
0215-95-0154	N/A	16.7	54.5	817	44.3	351	58.4	2110	850

Sample ID	Depth (in.)	Manganese (µg/L)	Mercury (µg/L)	Nickel (µg/L)	Selenium (µg/L)	Silver (µg/L)	Uranium (µg/L)	Vanadium (µg/L)	Zinc (µg/L)
RCRA Waste Toxicity Characteristics	N/A	Not Available	200	Not Available	1000	5000	Not Available	Not Available	Not Available
0215-95-0013	N/A	1300	5.6	260	28	46	2.5	180	16900
0215-95-0014	N/A	3600	61	650	67	100	ND	470	42000
0215-95-0015	N/A	3300	34	610	63	110	ND	430	38900
0215-95-0154	N/A	1560	8.42	258	28.2	35.7	2.62	190	18000

NOTE: Not RCRA Waste

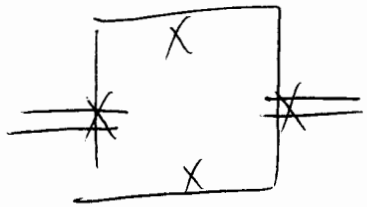
Removal Rationale

- Using group potential development plans
- "Dry" tank
  - integrity uncertain
  - removal/sampling more cost effective than drilling/sampling

WANT TANK "OUT OF WAY"

Proposed Cleanup

- Pressure wash interior of tank
- Analyze rinsate water for TAL metals and radionuclides for waste characterization
- Install runon/runoff controls
- Remove tank
- Sample exterior of tank location below inlet and outlet pipes and sample from each side of tank at tank's bottom



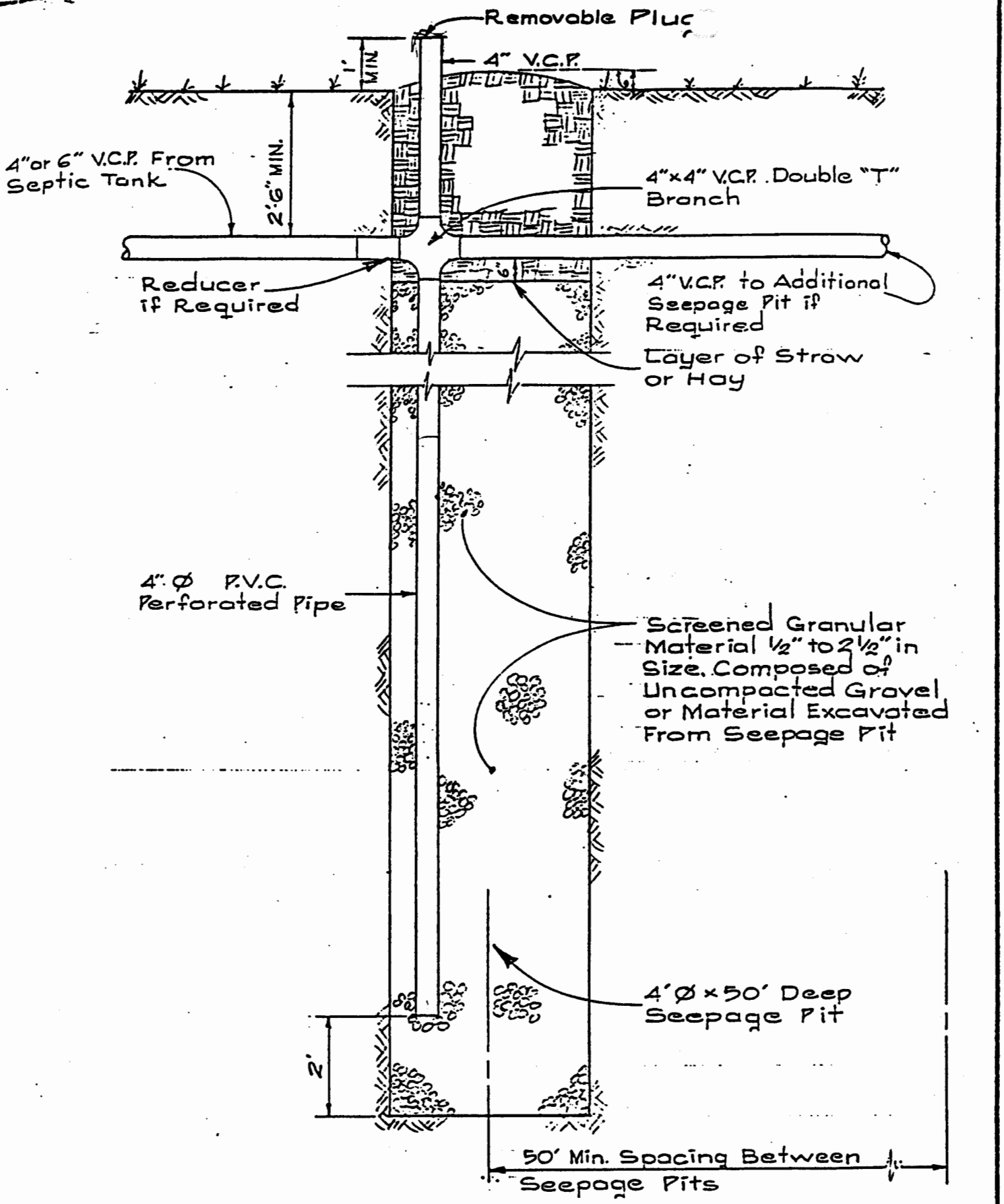
X = XPLS

Proposed Cleanup (continued)

- **Sample seepage pits**
  - one 60 ft hole bored next to perimeter of each pit TO AVOID COBBLES IN PIT
  - samples will be collected at 3 ft [below inlet to seepage pit(s)], 20 ft, and 60 ft depths, and at any obvious discoloration of core material

Proposed Cleanup (concluded)

- Soil samples sent to fixed lab for total metals, rad, SVOC's, VOC's, and HE
  - if soil samples collected around tank indicate contamination above Region 9 PRGs, soil removal will occur
  - if samples from seepage pit(s) indicate contamination, an assessment will be conducted



U.S. ATOMIC ENERGY COMMISSION LOS ALAMOS, NEW MEXICO

SECTION - SEEPAGE PIT

DATE | THE ZIA COMPANY | SHEET 1 | OF

Waste Volume Generated - tank removal

- Sampling waste/PPE: < one 55-gallon drum
- Contaminated liquids: ~ two 55-gallon drums
- Decontamination wastes: < one-30 gallon drum
- Concrete rubble: ~ 4 cu. yds.
- Contaminated soil (if any): estimated at 10 cu. yds. of RCRA metals WORST CASE SCENARIO

Schedule/Cost Estimate

- Timeframe - summer 1997
- Duration - two weeks - exclusive of Laboratory analysis turnaround
  - mobilization
  - removal of tank
  - field characterization
  - drilling
  - soil excavation, if necessary
  - demobilization
- Cost estimate - $56,000

Implementation

- Pressure wash interior of tank
- Remove wash water using vacuum tank system
  - based on visual inspection of first rinse, second rinse will be conducted
- Sample rinsate water to determine cleanliness of tank
- Drill at seepage pit(s) and sample core
- Remove tank
- Sample soil outside of tank

Implementation (continued)

- Backfill hole
- Regrade and reseed, and monitor until 75% regrowth is achieved
- Dispose of waste
- Write completion report
- Submit NFA permit modification request