

5.25 SWMU 36: BUILDING 3200 AND SURROUNDING AREA

5.25.1 Site Description and Waste Generation

SWMU 36 is located in the south central portion of TEAD-S, east of Storage Pad Road No. 6 (Figure 5.25-1) and adjacent to two trees that are visible for a considerable distance across the site. Based on a site inspection and an employee interview (Barnes 1989), Building 3200 may have been a laundry and/or showering facility (EA Engineering, Science, and Technology 1988). At one time, the building may have been used by employees in the demilitarization area for changing clothes before swimming in the pits to the east of the former building location (Figure 5.25-1). A 1966 photograph (EPIC 1982) shows that the ponds were still present, but did not appear to be in use. The pits are approximately 50 by 25 ft, and 7 ft deep (EA 1988).

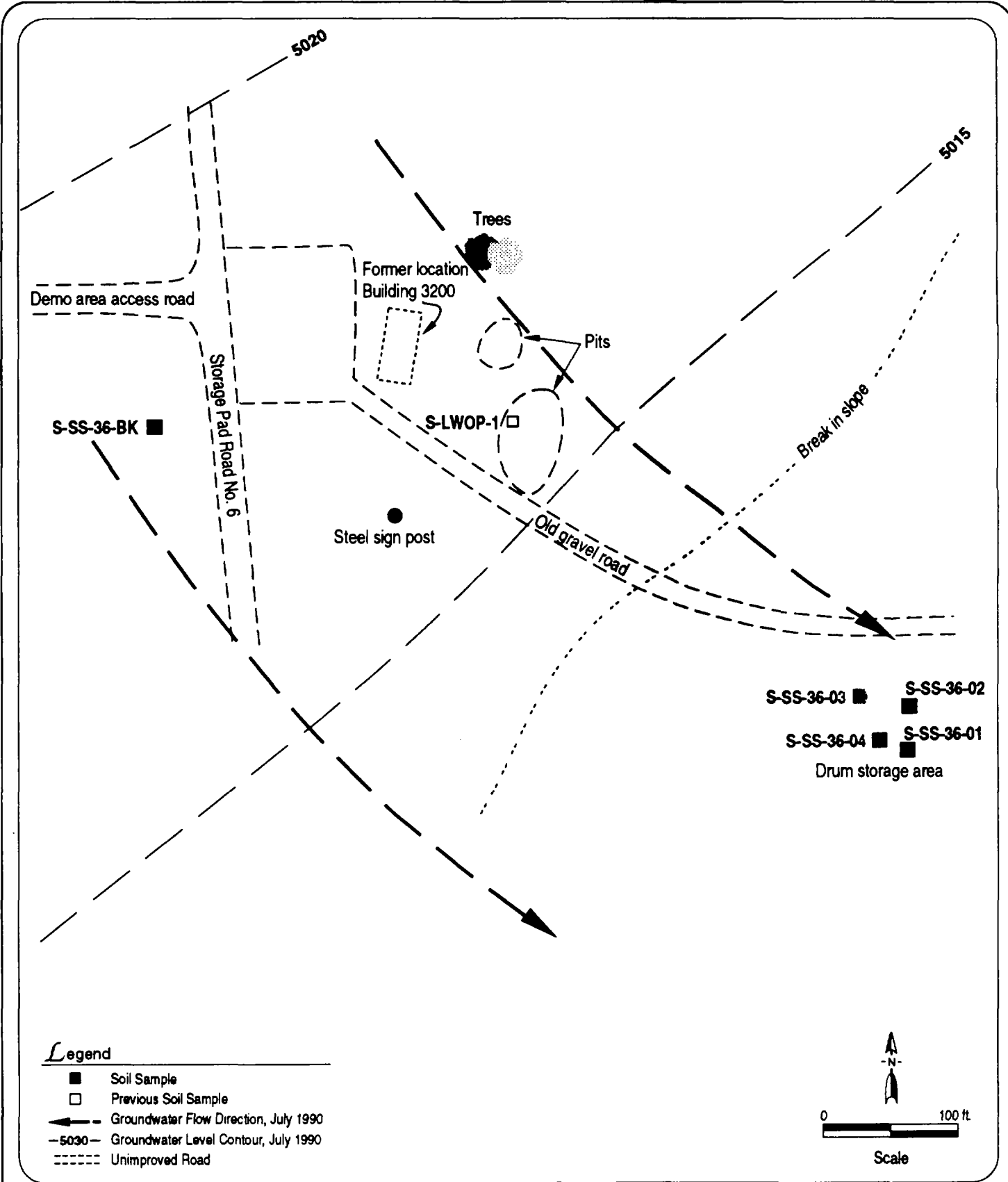
During a site inspection in 1986, drums were observed in two clusters near Building 3200 (NUS 1987). Stressed vegetation was also noted in this area. The drums in one cluster were at least partially full and were marked as hazardous, and the other cluster of drums were empty and rusted. A white crystalline solid was noted at each drum location. Analysis of some wastes at this location by TEAD-S personnel indicated that at least some of the wastes were FS smoke (NUS 1987). These wastes were removed by installation personnel until the remaining soil was not EP toxic (NUS 1987).

By the time of the RFI-Phase I site visit in August 1989, Building 3200 had been removed, but a rectangular, cleared, level area resembling a parking lot remained between the road and former building location. In 1991, some of the windrow material from SWMU 25 was moved to this cleared level area.

5.25.2 Site Hydrogeology

SWMU 36 is located in the southern part of TEAD-S at approximately 5,110 ft above msl. The former building at this SWMU is at the edge of a level area, and the pits are positioned on ground that slopes down to the area of a drainage, where the FS smoke drums were located. The site is underlain by a Quaternary pediment. Details on subsurface lithology are extrapolated from the closest monitoring well (S-69-90), and from soil samples S-SS-36-01, S-SS-36-02, S-SS-36-03, S-SS-36-04, and S-SS-36-BK. The near-surface soil is composed of very pale brown, clayey silt with a trace of gravel (ML). Below this silt layer, the unsaturated zone is composed of stiff, light gray to light olive-gray, silty clay (CL).

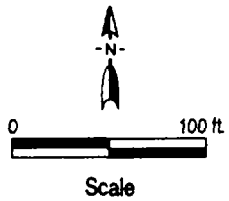
The saturated zone (95 to 125 ft) penetrated by nearby well S-69-90 is olive-gray to gray, silty clay and clayey silt (CL, ML). Groundwater is approximately 95 ft below the ground surface, at an elevation of approximately 5,015 ft msl (Plate 3). Groundwater probably flows south or southeast at SWMU 36.



Legend

- Soil Sample
- Previous Soil Sample
- ← Groundwater Flow Direction, July 1990
- 5030- Groundwater Level Contour, July 1990
- Unimproved Road

S-SS-36-03 ■ S-SS-36-02 ■
 S-SS-36-04 ■ S-SS-36-01 ■
 Drum storage area



Sources:
 EBASCO Field Measurement
 Basic Information Maps 1985
 EPIC 1986
 EA Engineering, Science, and Technology, Inc. 1988

Figure 5.25-1
Site Map
SWMU 36 - Building 3200 and Surrounding Area
 Toole Army Depot - South Area
 Prepared by: Ebasco Services Incorporated

5.25.3 Previous Sampling and RFI-Phase I Sampling Results

Previous sampling and analysis at SWMU 36 included one surface soil sample from the pit near the building and collection of six soil samples from the FS smoke storage area where stained soil was removed. During the cleanup of the FS smoke area, samples of FS smoke residues were analyzed for comparison to the soil sample results. Apparently samples from the FS smoke area were not surveyed or mapped. The sample from the pit was analyzed for explosives, nitrates, and nitrites while the other samples were analyzed for metals, endrin, lindane, methoxychlor, toxaphene, 2,4-D, silvex, and sulfite (Table 5.25-1).

During the RFI-Phase I, four soil samples were collected from the area where installation employees indicated that previously stored drums of FS smoke were stored, and one background soil sample was collected west of Storage Pad Road No. 6. The four soil samples from the FS smoke drum storage area were analyzed for volatile organics, semivolatile organics, explosives, and metals. Detections are listed in Table 5.25-2 and sampling locations, detected compounds, and their concentrations are presented in Figure 5.25-2.

5.25.4 Contamination Assessment

Previous sampling in the FS drum storage area indicated that any contamination was effectively removed. RFI-Phase I sampling confirmed that no FS smoke related contaminants remain in that area. Acetone was detected in each soil sample from the FS smoke area, probably as a result of laboratory contamination of the samples. Poor trichloroethylene and Tetryl recoveries in MS/MSD samples indicated inaccuracy in the methods for volatile organics and explosives analysis of FS smoke storage area soil samples. However, the analytical inaccuracy is relatively unimportant since no volatile or organic contaminants were indicated by the SWMU history. Copper and sodium were slightly above background levels, but do not indicate significant contamination.

No explosives were detected in the soil sample previously collected from one of the pits near Building 3200.

5.25.5 Recommendations

The results of Phase II sampling at the SWMU 25 windrows should be used to evaluate whether soil sampling is needed beneath the windrow material in the parking area. Since all other potentially contaminated areas have now been sampled without detecting contamination, no further investigation of SWMU 36 is recommended. The dry ponds should be filled in and brought to natural grade.

TABLE 5.25-1

Summary of Previous Analytical Investigations for SWMU 36:
Building 3200 and Surrounding Area

Analytical groups and Analytes Detected	PRODUCT (mg/l)		SOIL (mg/l)					S-LWOP-1*
	F. Smoke	187	188	189	190	191	192	
<i>EP Toxic Metals:</i>								
Chromium (Cr)	11.7 (5.0)	LT 5.0	LT 5.0	LT 5.0	LT 5.0	LT 5.0	LT 5.0	NA
Mercury (Hg)	19.0 (0.2)	LT 0.2	LT 0.2	LT 0.2	LT 0.2	LT 0.2	LT 0.2	NA
<i>Anions:</i>								
Sulfite (SO ₃)	25.0 (10.0)	LT 10.0	LT 10.0	LT 10.0	LT 10.0	LT 10.0	LT 10.0	NA

5-249

NA Not analyzed

LT Less than

mg/l Milligrams per liter

() Detection limit

* Soil sample S-LWOP-1 was analyzed for explosives and nitrates and nitrites only, and these compounds were not present above the detection limit

References: Nachtmann Analytical Laboratories, Inc. 1986
EA 1988

TABLE 5.25-2

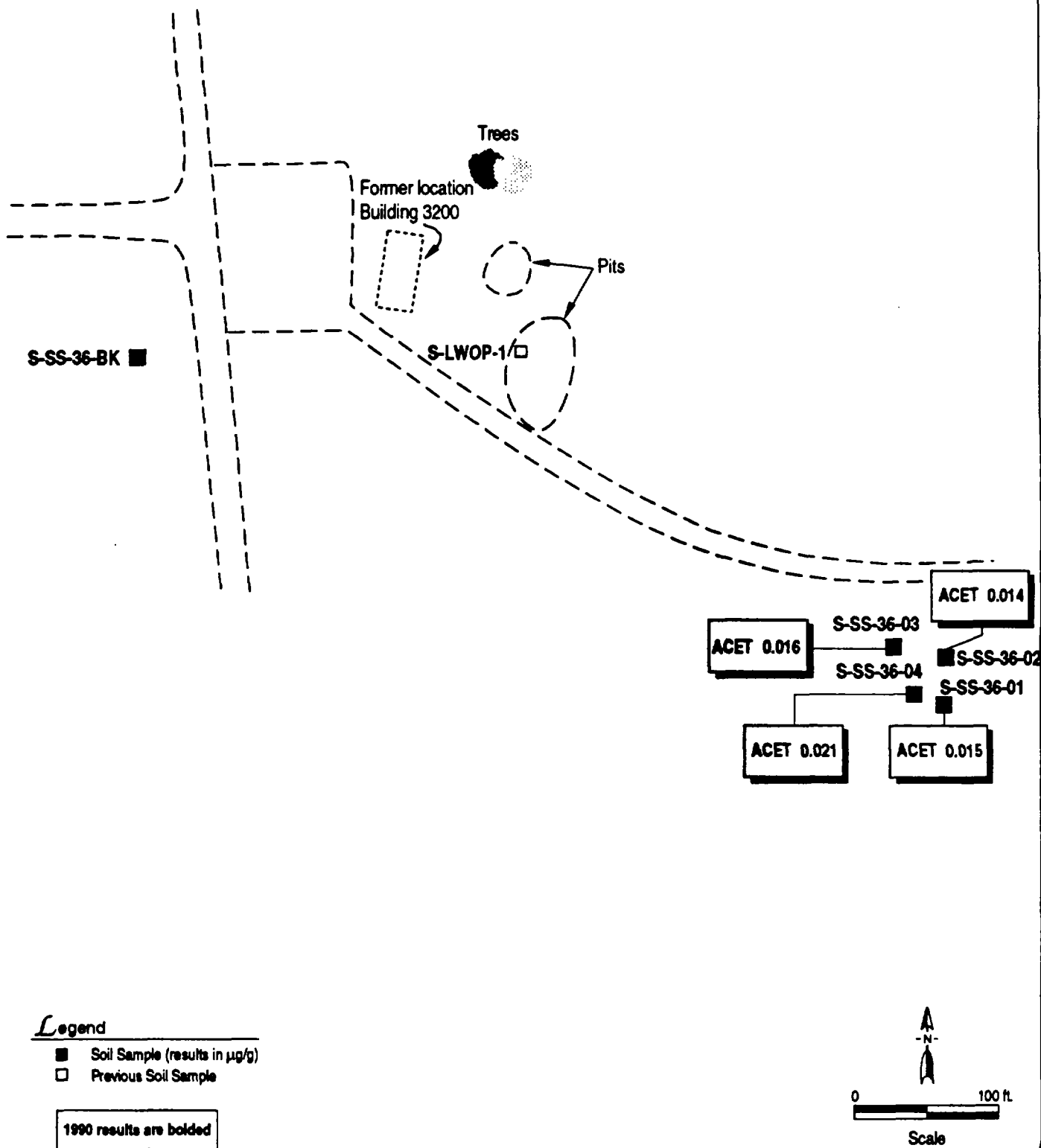
Summary of RFI-Phase I Investigations for SWMU 36:
Building 3200 and Surrounding Area

SOIL (µg/g)

Analytical Groups and Analytes Detected	S-SS-36-01	S-SS-36-02	S-SS-36-03	S-SS-36-04	S-SS-36-BK ¹
<i>Volatile Organics:</i>					
Acetone (ACET)	0.015	0.014	0.016	0.021	
Unknowns	.0032	0.044	0.022*		
<i>Semivolatile Organics:</i>					
Unknowns	10*	13*	8.7*	8.2*	
<i>Explosives: None Detected</i>					
<i>Metals:</i>					
Arsenic (As)	12	11	15	18	10
Beryllium (Be)	0.30	0.26	0.28	0.30	0.28
Chromium (Cr)	21	20	19	19	56
Copper (Cu)	24*	16*	28*	37*	22*
Lead (Pb)	12	17	18	16	180
Silver (Ag)	0.64	0.11	0.15	0.13	0.18
Sodium (Na)	1600	710	2700	2600	200
Zinc (Zn)	50	55	54	59	100

5-250

1 Metals analysis only
 * Detected in associated method blank
 NA Not analyzed
 µg/g Microgram per gram



Tooele Army Depot - South Area
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Figure 5.25-2
SWMU 36 - Building 3200 and Surrounding Area
Volatle Organics