2.0 SITE BACKGROUND

2.1 LOCATION

Located in Tooele County in north-central Utah, Tooele Army Depot (TEAD) consists of two separate areas: North Area (TEAD-N) and South Area (TEAD-S). TEAD-N is located just west of the town of Tooele, Utah, approximately 35 miles southwest of Salt Lake City, and comprises 24,732 acres. TEAD-S (Figure 2-1) lies approximately 17 miles south of TEAD-N, 20 miles south of the town of Tooele, and 52 miles southwest of Salt Lake City. It covers approximately 19,355 acres (Weston 1991). The nearest town to TEAD-S is the small community of Stockton located approximately 10 miles north of the facility.

TEAD-S is situated in a north-trending valley called Rush Valley. The area surrounding it is a sparsely settled, rural area, which consists of open space and cultivated land that is used primarily for agricultural and grazing purposes. The closest residence is less than 1 mile from the northeastern corner of TEAD-S. Rush Lake lies to the north, between TEAD-S and TEAD-N, and a Union Pacific Railroad right-of-way parallels the western boundary of TEAD-S.

2.1.1 Location of SWMU 13

SWMU 13 is located in the southwestern quadrant of TEAD-S, south of the Chemical Agent Storage Area (Figure 2-2). The demilitarization activity at CAMDS is conducted in a complex of structures within a 10-acre fenced site. The rest of the CAMDS-use area is undeveloped, containing no other buildings or structures. A railroad and street serve the CAMDS facility.

2.1.2 Location of SWMU 17

SWMU 17 is located just inside the northeastern quadrant in the north-central portion of TEAD-S. It is situated between the Administration Area to the northeast and the Chemical Agent Storage Area to the southwest (Figure 2-2). It now consists of only an inactive furnace.

2.2 DEMOGRAPHICS

Tooele County is one of five counties that make up the Wasatch Multi-County Planning District, which contains the majority of the state's population; it, however, is the least-populated of these counties. According to the U.S. Census Bureau, the population of Tooele County rose from 26,033 in 1980 to 26,601 in 1990. During this same period, the population of the city of Tooele fell from 14,335 to 13,887, for a 3.21 percent decrease.

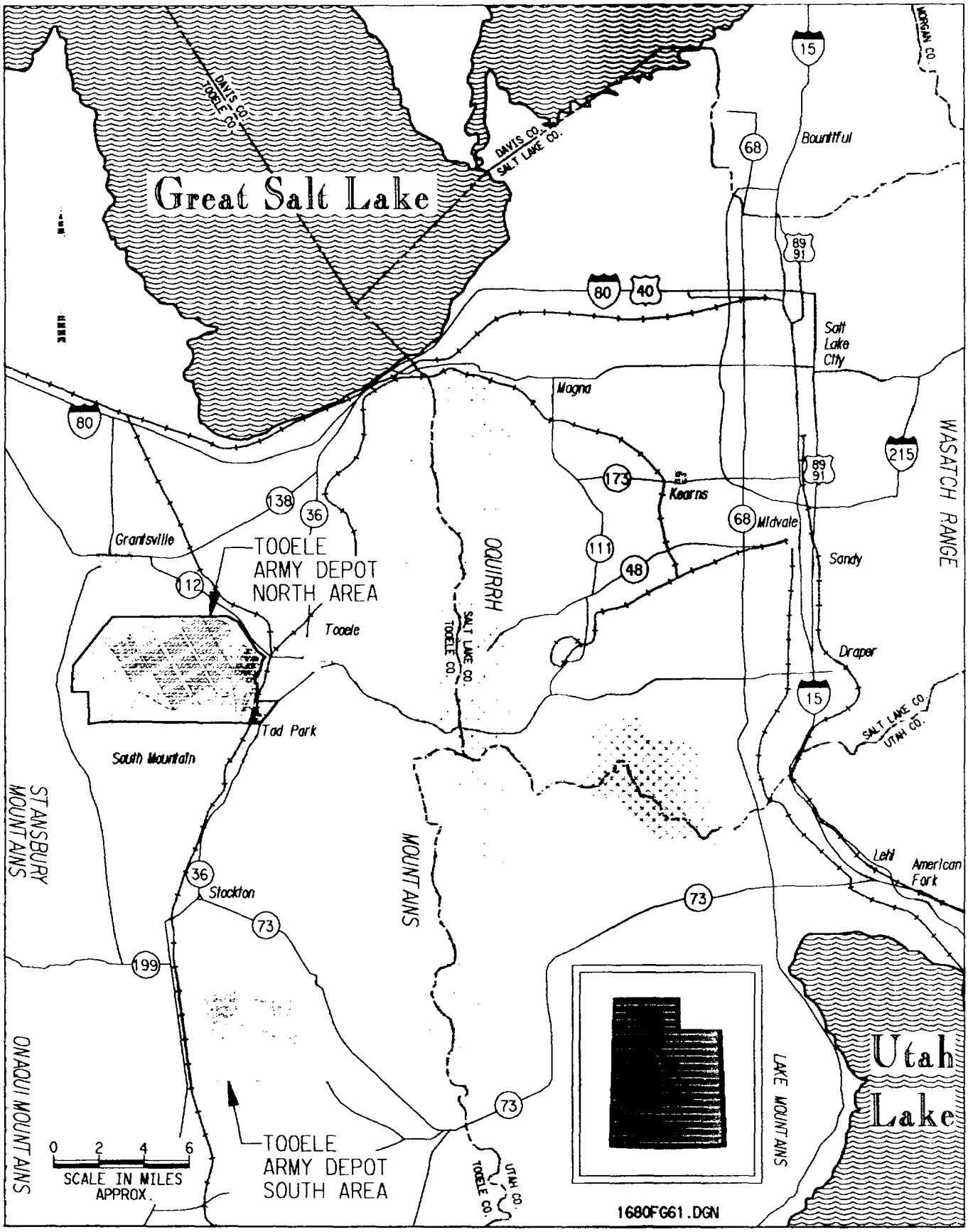

Figure 2-1. TEAD-S Area Location Map

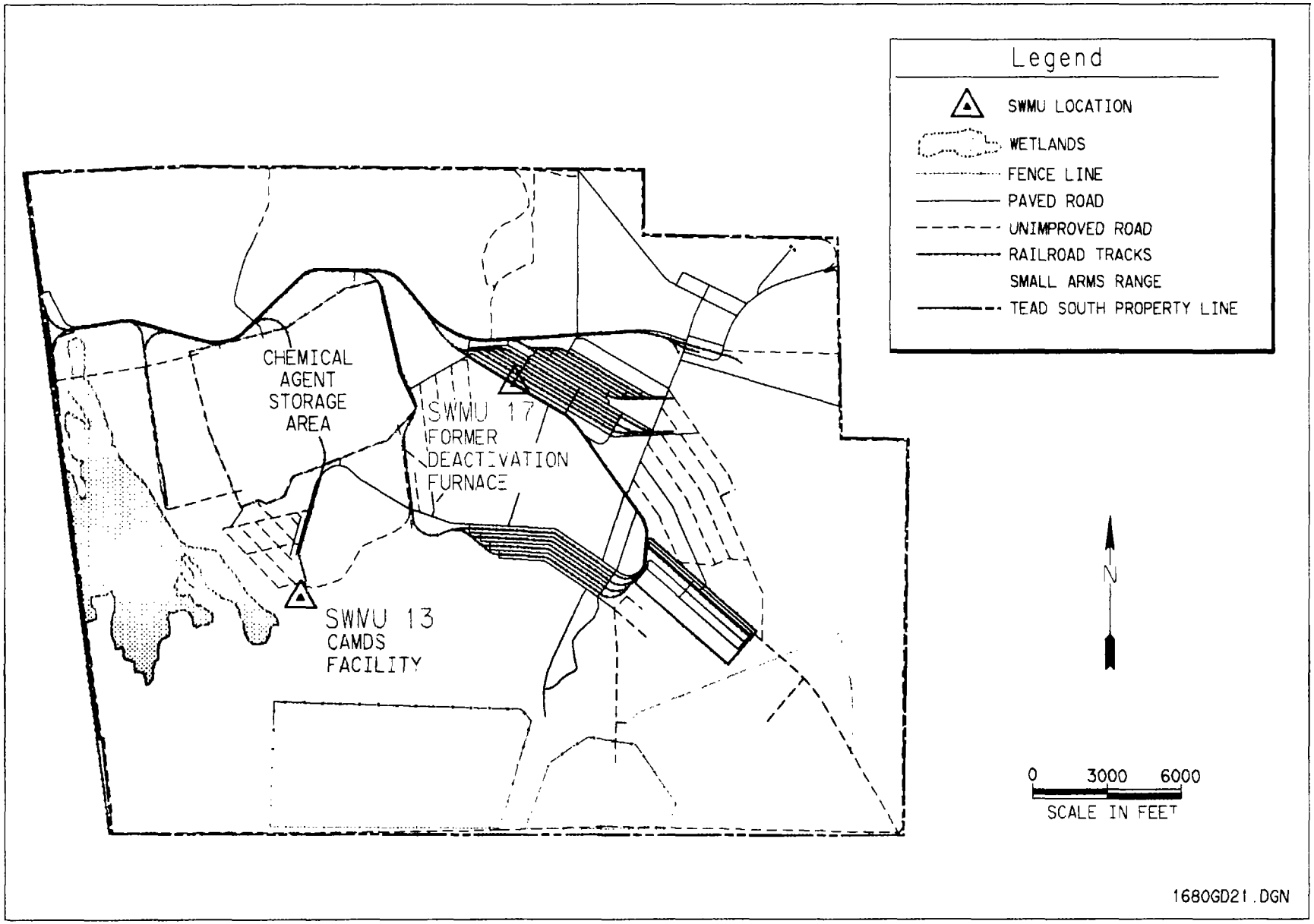

Figure 2-2. TEAD-S Location Map of SWMU 13 and SWMU 17

A few small communities exist within a 5-to-10-mile radius of TEAD-S: Clover and St. John are approximately 2 miles northwest; Stockton is 10 miles to the north; Ophir is approximately 4 miles northeast; and Faust is about 5 miles south. All of these towns, except Stockton, have populations of less than 40. Stockton, which is downgradient of TEAD-S, has a population of 426. Table 2-1 shows the age, race, and sex breakdown for the population of Stockton, Utah. The ghost town of Mercur is about 3.5 miles to the east of TEAD-S. It was purchased by Getty Oil, which has developed the Barrick-Mercur Gold Mine, a minerals extraction and processing facility.

2.3 SITE HISTORY

The Army Ordnance Department established TEAD on April 7, 1942. Construction of the facilities, including igloos, magazines, administration buildings, military and civilian housing, roads, and vehicle storage areas, was completed in January of 1943. The Deseret Chemical Warfare Depot, a storage depot for chemical agents, was constructed during this same time period on orders from the Department of Defense. This storage area consisted of 140 igloos, 2 magazines, 7 warehouses, 32 toxic sheds, and several transitory storage areas. Twelve years later, in May of 1955, the Deseret Chemical Warfare Depot came under the command of TEAD and was redesignated the Deseret Depot Activity. It, in turn, was discontinued in 1962 and became part of the Tooele Ordnance Depot. In August of that same year, it was designated the Tooele Army Depot-South Area. Since 1962, TEAD's mission has changed and expanded, supporting other Army installations throughout the western United States. Today, it is one of the major chemical agent/ammunition storage installations in the continental United States.

Most activities at TEAD-S have been associated with munitions, including storage, disassembly, analysis, modification, reassembly, and repacking. Chemical-filled munitions, containerized chemical agents, and conventional munitions have been or are currently stored at TEAD-S. Specific waste-disposal operations include munitions and incendiary washout operations and sewage treatment.

2.3.1 History of the Chemical Agent Munitions Disposal System, SWMU 13

Prior to 1979, the area where CAMDS is situated was a bunker storage area with an open burn pit (SWMU 30). Sometime before construction started on CAMDS (estimated from aerial photos to be 1956-1967), all stored material and all bunkers were removed, and the open pit was closed. Also, from 1956 to the early 1970s, three trenches at SWMU 30 were used for wood burning and dunnage disposal.

Constructed just north of SWMU 30, CAMDS began operations in 1979. The research and development of methods for demilitarizing lethal chemical munitions (such as nerve, blister, and mustard agents) and the treatment of wastes from this demilitarization process are conducted there. Further discussion of this activity is included in Section 4.1.1.

Table 2-1. Age, Race, and Sex Breakdown for the Population of Stockton, Utah

	White		Black		American Indian, Eskimo or Aleut		Asian or Pacific Islander		Other race	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Under 1 year	2	4	0	0	0	0	0	0	0	0
1 and 2 years	4	9	0	0	0	0	0	0	0	0
3 and 4 years	9	6	0	0	1	0	0	0	0	0
5 years	5	6	0	0	1	1	0	0	0	0
6 years	3	4	0	0	0	0	0	0	0	0
7 to 9 years	19	17	0	0	1	0	0	0	0	0
10 and 11 years	9	7	0	0	0	0	0	0	0	0
12 and 13 years	14	10	0	0	0	0	0	0	0	0
14 years	3	3	0	0	0	0	0	0	0	0
15 years	2	6	0	0	0	0	0	0	0	0
16 years	3	6	0	0	0	0	0	0	0	0
17 years	1	2	0	0	0	0	0	0	0	0
18 years	1	3	0	0	0	0	0	0	0	0
19 years	1	3	0	0	0	0	0	0	0	0
20 years	1	2	0	0	0	0	0	0	0	0
21 years	3	1	0	0	0	0	0	0	0	0
22 to 24 years	3	6	0	0	0	0	0	0	0	0
25 to 29 years	18	10	0	0	0	1	0	0	0	0
30 to 34 years	17	16	0	0	0	1	0	0	0	0
35 to 29 years	10	20	0	0	1	1	0	0	0	0
40 to 44 years	20	9	0	0	0	1	0	0	0	0
45 to 49 years	9	9	0	0	1	1	0	0	0	0
50 to 54 years	9	6	0	0	0	1	0	0	0	0
55 to 59 years	8	9	0	0	1	0	0	0	0	0
60 and 61 years	3	4	0	0	0	0	0	0	0	0
62 to 64 years	4	5	0	0	0	0	0	0	0	0
65 to 69 years	7	10	0	0	0	0	0	0	0	0
70 to 74 years	9	8	0	0	0	0	0	0	0	0
75 to 79 years	5	2	0	0	0	0	0	0	0	0
80 to 84 years	4	2	0	0	0	0	0	0	0	0
85 years and over	0	2	0	0	0	0	0	0	0	0

Note.—According to 1990 Census of Population and Housing as provided by the Demographic and Economic Analysis Section, 116 State Capitol, Salt Lake City, Utah, 84114.

2.3.2 History of the Deactivation Furnace/Mercury Contamination Site, SWMU 17

In 1976, prior to placement of the deactivation furnace and associated equipment north of Building 533 (SWMU 19), the building and support structures were used for railroad car maintenance (Ebasco 1991). The deactivation furnace was operated primarily for disposal of fuses, primers, and small arms munitions from 1976 until 1982, when it was dismantled. A detailed description of the deactivation process is presented in Section 4.2.1. After 1982, Building 533 was used to store drums of hazardous materials including solutions containing mercury. In 1986, a spill of this mercury-containing liquid occurred outside of the building.

2.4 POTABLE WATER USE

Only two production wells supply potable water for TEAD-S operations. In 1942, these two wells were installed in the northeastern corner of the facility at depths of 405 and 425 feet below ground surface (bgs), with water-table levels approximately 285 feet bgs. A third well was installed in 1972, near CAMDS, but was abandoned the same year because of production problems. There is no available historical information pertaining to well construction for these wells.