

US Army Corps of Engineers HUNTSVILLE DIVISION

FINAL COPY

Defense Environmental Restoration Program for Formerly Used Defense Sites

> Ordnance and Explosive Waste Chemical Warfare Materials

# **ARCHIVES SEARCH REPORT**

# SUNNYVALE, CALIFORNIA

Santa Clara County, California

Site Nos. J09CAT98300

**MARCH 1994** 

Prepared by US ARMY CORPS OF ENGINEERS ST. LOUIS DISTRICT

FINAL

# RESTORATION INFORMATION MANAGEMENT SYSTEWM FORMERLY USED DEFENSE SITES (FUDS) Final DATE: March 1994 TAG Review Date: 27 July 2005

1. SITE NAME: Sunnyvale

SITE NUMBER: J09CA705500

LOCATION:

City:	Sunnyvale
County:	Santa Clara
State:	California

5

PROJECT NUMBER: J09CA705500

CATEGORY: MMRP

INPR RAC:

ASR RAC: 5

TAG RAC:

2. POC's:

#### GEOGRAPHIC DISTRICT:

Name: Gerald Vincent Office: CESPK-PM-H Phone: 916-557-7452

#### **HEADQUARTERS:**

Name: Sara Goodwin Office: CEMP-RF Phone: 202-761-5223

#### ASR SUPPORT DISTRICT:

Name: Bob Tenholder Office: CELMS-PM-M Phone: (314) 331-8786

# 3. SITE DESCRIPTION:

GEOGRAPHIC DIVISION:

Name:	Vincent Delgreco
Office:	CESPD-MT-M
Phone:	415-977-8246

#### ASR/INPR TEAM LEADER:

Name:	Bradford McCowan
Office:	CEHNC-OE-CX
Phone:	256-895-1174

#### ASR TECHNICAL REVIEWER:

Name:	Daniel	Linehan
Office:	SJMAC-1	ESM
Phone:	918-420	0-8867

a. The Sunnyvale site is located within the city of Sunnyvale in the current location of Washington Park. The area is flat, developed, and consists of a city park, school, senior citizens center, and residential area.

b. There was no MEC discovered during the site survey.

# 4. SITE HISTORY:

a. Historical documentation indicates that the area was used as a bivouac site for the 40<sup>th</sup> Chemical Laboratory Company from February 1943 through October 1943. Barracks, Latrines, and a mess hall were constructed on-site. There was no indication that personnel participated in any ordnance related activities on this site and all laboratory work was executed at nearby Stanford University. The facilities were also shared with Command Staff of the II Armor Corps.

b. All local real estate documents prior to 1952 were destroyed. The site is reported to have been owned by a local farmer, sold to the City of Sunnyvale, leased to the US Army, and then returned to the City after WWII.

# 5. **PROJECT DESCRIPTION:**

Size, Acres:	Unknown
Former Use:	Bivouac Area
Present Use:	City Park, Residential, School, Senior Center
Future Use:	Same as above
OE Presence:	
Confirmed:	None
Potential:	None
ASR Recommends:	RAC 5
HNC Safety:	RAC NA

6. **CURRENT STATUS:** The Archives Search Report (ASR) for Sunnyvale was completed by the U.S. Army Corps of Engineers, St. Louis District, in March 1994.

7. **STRATEGY:** (NDAI)

8. ISSUES AND CONCERNS: The Huntsville Center Technical Advisory Group met and evaluated this ASR on 27 July 2005. The consensus was a score of RAC 5. The following issues were addressed:

2

a. This paragraph states, "no records were located which described the real estate transactions which allowed the military to encamp in Sunnyvale." The paragraph further explains that city records prior to 1952 were destroyed. A phone record, included in Appendix E, states real estate records for the site were available in the USACE Sacramento District Office. Para 6.2.11 states no information was copied at the Sacramento District office. There was no INPR information provided in this ASR. There is no reference to total acreage involved with this site.

b. There are known Federally-and State-listed species occurring in the site area. An on-site inspection by appropriate State and Federal personnel may be necessary to verify the presence, absence or location of listed species, or natural communities.

c. Based on the investigation of historical records reviewed, the results of the site survey and interviews, there is no evidence indicating that chemical warfare material was trained with, stored, or disposed of at Sunnyvale.

#### 9. SCHEDULE SUMMARY:

	Original	Schedule	Actual	Original	Schedule	Actual
Phase	Start	Start	Start	Complete	Complete	Complete

#### 10. FUNDING/BUDGET SUMMARY:

		Exec	In-House	Contract	Funds
Year	Phase	FOA	Required	Required	Obligated

# Ordnance and Explosive Waste Chemical Warfare Material Archives Search Report for the former SUNNYVALE, CALIFORNIA Santa Clara County, California Site Number - J09CAT98300

# TABLE OF CONTENTS

1.0	Introduction	<u>Page</u>
	Authority	1-1
	Subject Purpose	1-2
	Scope	1-2
1.4	Бсоре	1-2
2.0	Previous site investigations	2-1
	Site and site area description	
	Location	3-1
	Past uses of the site	3-1
	Current uses of the site	3-1
3.4	Demographics of the area	3-1
4.0	Physical characteristics of the site	
4.1	Geology/physiography	4-1
	Soils	4-1
	Hydrology	4-2
	Weather Ecology	4-3
4.9	ECOLOGY	4-4
5.0	Real Estate	
5.1	DOD ownership	5-1
	Present ownership	5-1
5.3	Significant past ownership other than DOD	5-1
6.0	OEW/CWM site analysis	
6.1	4	6-1
6.2		6-1
	Summary of interviews	6-3
	Site inspection	6-3
6.5	Air photo interpretation	6-6
7.0	Evaluation of ordnance contamination	
	CWM contamination	7-1
7.2	Conventional contamination	7-1
	Conclusions and Recommendations	
	Conclusions	8-1
8.2	Recommendations	8-1

Ordnance and Explosive Waste Chemical Warfare Material Archives Search Report for the former SUNNYVALE, CALIFORNIA Santa Clara County, California Site Number - J09CAT98300

#### APPENDICES

- A. REFERENCES
- B. ACRONYMS
- C. REPORTS/STUDIES/LETTERS/MEMORANDUMS
- D. HISTORICAL PHOTOGRAPHS
- E. INTERVIEWS
- F. NEWSPAPERS/JOURNALS
- G. PRESENT SITE PHOTOGRAPHS
- H. HISTORICAL MAPS/DRAWINGS
- I. RISK ASSESSMENT PROCEDURES FOR OEW SITES
- J. REPORT DISTRIBUTION LIST

#### PLATES

- 1. SUNNYVALE, SITE SURVEY, FEBRUARY 1994
- 2. AERIAL PHOTOGRAPH, 1939
- 3. AERIAL PHOTOGRAPH, 1948
- 4. AERIAL PHOTOGRAPH, 1963

# 1.0 Introduction

# 1.1 Authority

.....

In 1986, Congress established the Defense Environmental Restoration Program at 10 U.S.C. 2701 et.seq. This program directed the Secretary of Defense to "carry out a program of environmental restoration at facilities under the jurisdiction of the Secretary."

In March, 1990, the EPA issued a revised National Contingency Plan. Under 40 C.F.R. 300.120, EPA designated DOD to be the removal response authority for incidents involving DoD military weapons and munitions under the jurisdiction, custody and control of DoD.

Since the beginning of this program, the U.S. Army Corps of Engineers has been the agency responsible for environmental restoration at Formerly-Used Defense Sites (FUDS). Since 1990, the U.S. Army Engineering and Support Center, Huntsville, has been the Mandatory Center of Expertise and Design Center for Ordnance and Explosives.

The March 1990 National Oil and Hazardous Substances Pollution Contingency Plan given in 40 CFR part 300 is the latest version of the NCP. Paragraph 300,120 states that "DOD will be the removal response authority with respect to incidents involving DOD military weapons and munitions, or weapons and munitions under the jurisdiction, custody, and control of DOD."

On April 5, 1990, U.S. Army Engineer Division, Huntsville (USAEDH) was designated as the USACE Mandatory Center of Expertise (MCX) and Design Center for ordnance and explosive waste. As the MCX and Design Center for OEW, USAEDH is responsible for the design and successful implementation of all Department of the Army OEW remediation actions required by CERCLA. USAEDH will also design and implement OEW remediation programs for other branches of the Department of Defense when requested. In cooperation with the Huntsville Division the St. Louis District has been assigned the task of preparing Archive Search Reports for those Formerly Used Defense Sites (FUDS) which concern any aspect of chemical munitions.

## 1.2 <u>Subject</u>

The subject of this investigation was the bivouac and training locations of the 40th Chemical Company (Laboratory) while the unit was stationed in Sunnyvale, California from 18 February 1943 through 13 October 1943.

#### 1.3 <u>Purpose</u>

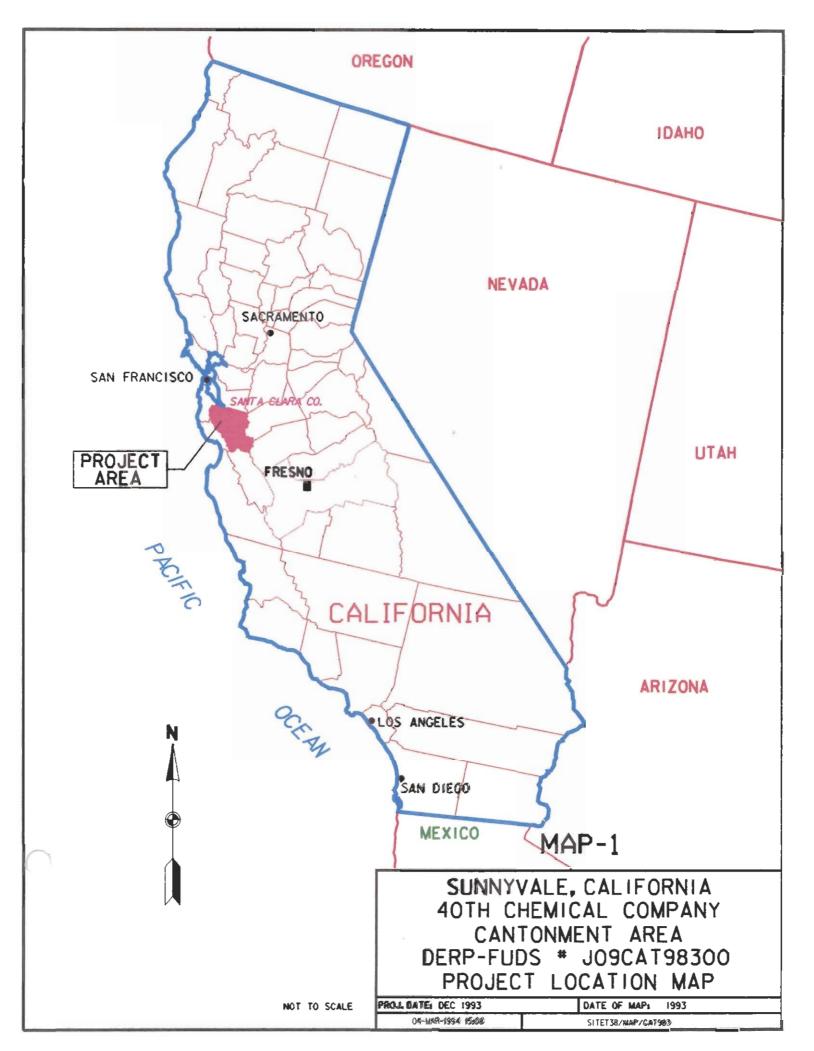
To determine through archives search the types, quantities, and probable locations of Ordnance and Explosive Waste (OEW) abandoned by the Department of Defense (DOD) prior to relinquishing ownership.

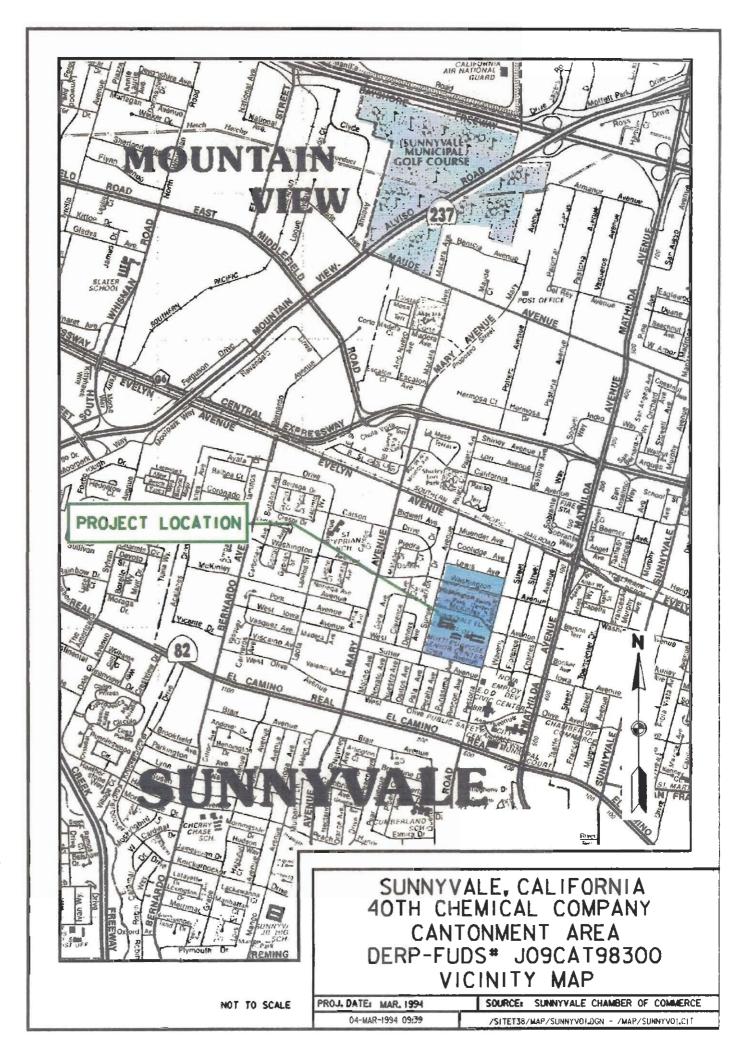
### 1.4 <u>Scope</u>

This investigation focused on that area identified in Inventory Project Reports (INPR) #J09CAT98300, Sunnyvale, Santa Clara County, California. This report presents the site history, site description, real estate ownership information, results of a visual site inspection, confirmed ordnance presence based on available records and the site inspection, and evaluation of potential ordnance contamination based on site ordnance components and site information.

# 2.0 Previous site investigations

A. None located during this investigation.





# 3.0 Site and site area description

### 3.1 <u>Location</u>

The area of this particular DERP-FUDS project is located in Washington Park in Sunnyvale, California. The site is approximately bounded on the north by Coolidge Avenue, on the south by Iowa Avenue, on the east by Pastoria Street, and on the west by Sunset Street.

One reaches the site by flying into San Francisco International Airport and travelling south on State Route 101 approximately 20 miles. Take the Mathilda Avenue/Sunnyvale exit and turn right. Continue on Mathilda Avenue approximately 2 miles and turn right on Washington Street. Travel approximately one-half mile to Washington Park. The park is located within the boundary of the former bivouac site.

# 3.2 Past uses of the site

Historical documentation indicates the site was used as a bivouac area for the 40th Chemical Laboratory Company from February 1943 until October 1943. As such, the Government constructed buildings required for the housing of troops to include barracks, latrines, shower facilities and a mess hall. The personnel of the 40th Chemical Lab. Co. participated in routine military training to include physical training, drill, and classroom work. The location also housed staff and command vehicles of the II Armoured Corps. As the Second World War came to a conclusion, the property reverted back to the City of Sunnyvale.

#### 3.3 Current uses of the site

The site of the former bivouac area consists of a city park, known as Washington Park, a senior citizens ceneter, a school, and a residential area.

#### 3.4 Demographics of the area

Sunnyvale is located in Santa Clara County, California. Sunnyvale has numerous centers of activity such as Sunnyvale Town Center, Moffet Field Naval Air Station, El Paseo De Los Suenos, Libby Can Water Tower, Michelangelo's "Pieta", Palmer College of Chiropractic West, Central California Ecologium, Children's Development Center, Ponderosa School, Fremont High School, Arboretum, Civic Center, Creative Arts Center, Multi-Purpose Senior Center, Cal Train Depot, Sunnyvale Municipal Golf Course, Sunken Garden's Golf Course, and other recreational facilities throughout the community. Many activities surround Sunnyvale, which is located in "Silicon Valley".

The total population of Sunnyvale, California is 117,229 distributed over an area of 23.4 square miles for a population density of 5,009 persons/square mile. The total population of Santa Clara County, California is 1,497,577 distributed over an area of 1293 square miles for a population density of 1,158 persons/square mile. The above population and area information is based on the U.S. Department of Commerce, Bureau of the Census, 1990 statistics.

Both telephone interviews and County Business Patterns (1990) assisted in developing a business profile of the area. The City of Sunnyvale is diversified. The largest employers are Lockheed Corporation, aircraft manufacturer; AMDAHL, computer systems; Advanced Micro Devices, integrated electric circuits; ESL of TRW, electronic systems; and Westinghouse Electric, Marine Division, electric turbines.

Sunnyvale is an economic diverse community. The community supports construction, governmental, light manufacturing, retail and service, and wholesale sectors.

Housing in Sunnyvale is composed of both single and multi-family homes.

Development in the Sunnyvale area includes growth at the Sunnyvale Corporation Yard, numerous office parks, residential home building, and the renovation of period homes.

The ancestry in Sunnyvale is diverse. The community is largely composed of German, English, and Irish descendants. There are approximately 50,789 housing units with a median household income of \$46,403. The work force, based on the number of establishments, of Santa Clara County is broken down into the following: manufacturing, 17%; non-manufacturing, 77.6%; agriculture, 1.3%; and other non-agriculture, 1.3%.

# 4.0 Physical characteristics of the site

# 4.1 <u>Geology/physiography</u>

The site is located within the California Coast Ranges Section of the Pacific Border physiographic province (Thornbury, 1965). The Coast Ranges are a linear system of nearly parallel ranges which trend N30-40°W, and whose extent is from the Klamath Mountains on the north to the Transverse Ranges on the south, approximately a distance of 400 miles. The Great Valley of California lies to the east and on the west, little to no coastal plain separates the Coast Ranges from the Pacific. The Coast Ranges are divided into northern and southern halves, Sunnyvale lies in the southern half. The site is between the San Francisco Bay to the north, and the Santa Cruz Mountains to the south. The area is tectonically active, with the San Andreas Rift Zone nearby. The most notable faults in the area are San Andreas, Hayward and Calaveras faults. The faults are predominantly of the strikeslip type, with probable large right lateral displacements (east blocks moved relatively south). Structure detail is highly It is controled by faulting, the trend of which is complex. predominantly in a northwesterly direction. In many places, folding and crumbling of the sediments are associated with faulting. Numerous northwest-trending folds in the Tertiary beds have been mapped. Folding within areas of Upper Jurassic rocks, however, is not as well know, because persistent axes cannot be traces with certainty. The mostly sedimentary rock masses were closely folded in Miocene and later time, eroded considerably and then broke into fault blocks with the present configuration by the Pleistocene.

# 4.2 <u>Soils</u>

The site is adjacent to the San Francisco Bay National Wildlife Refuge on the north, which is a swampy area with salt evaporator ponds. South of the site lies the Santa Cruz Mountains. Although there has been considerable urbanization, site soils can generally be described as very deep, nearly level, very poorly drained clays and silty clays. These clays formed in alluvuim derived from various types of rock, in sediment from San Francisco Bay, and in hydrophytic plat material. The area has been considerably urbanized, and the soils have been graded and mixed or covered with fill material for the most part. The soils are limied by water at or near the surface and by the susceptibility of the soils to subsidence. They are highly corrosive to uncoated steel and concrete and are slowly permeable (0.06 - 0.2 in/hr) (Kashiwagi and Hokholt, 1991).

#### 4.3 <u>Hydrology</u>

## 4.3.1 Ground Water

The Soil Survey of San Mateo County, Eastern Part, and San Francisco County, California, states that depth to the seasonal high water table is from +2.0 - 5.0 feet. The soils are clays and silty clays, and are slowly permeable. These types of soils would cause ponding of surface water or contaminants and slow percolation to the underlying strata. Depth to bedrock is also stated to be greater than 60 inches (Kawashagi and Hokholt, 1991).

The bedrock Franciscan Formation (melange) has been metamorphosed and these rocks form an almost impermeable boundary for any ground-water basin, but fractures and joints could permit small accumulation of water.

#### 4.32 Surface Water

Storm runoff from the site drains to the San Francisco Bay. The site is located south of the southeastern tip of the San Francisco Bay. A tidal gage is located at the stream junction of the Coyote Creek and the Alviso Slough in San Francisco Bay. The publication "Tidal Stage vs. Frequency Study", US Army Corps of Engineers, San Francisco District, October 1984, presented a graphical/statistical procedure to define tidal stage vs. frequency relationship for gages around San Francisco Bay. Elevations of tidal datum for this gage are referred to as mean lower low water. The results of the study for this gage are shown in Table 4-1. The estimated highest water level to the nearest half foot is eleven and one-half feet above mean lower low water. The estimated lowest water level to the nearest half foot is two and one half feet below mean lower low water.

TABLE 4-1	
TIDE ELEVATIONS DATUM FOR	
COYOTE CREEK, ALVISO SLOUGH, SAN FRANCISCO BAY	

	Feet Above Mean Lower Low Water	Approximate <u>NGVD Values</u>
MEAN HIGHER HIGH WATER	8.9	
MEAN HIGH WATER	8.3	
MEAN TIDE LEVEL	4.75	
MEAN LOW WATER	1.30	
MEAN LOWER LOW WATER	0.00	
10-YEAR	11.8	7.5
100-YEAR	12.4	8.0
500-YEAR	12.7	8.3

# 4.4 <u>Weather</u>

The site enjoys a marine-type climate characterized by mild and moderately wet winters and by dry, cool summers. Winter rains, occurring from November through March, account for over 80 percent of the annual rainfall, and measurable precipitation occurs on an average of 10 days per month during this period. However, there are frequent dry periods lasting well over a week. Severe winter storms with gale winds and heavy rains occur only occasionally. Thunderstorms average two a year and may occur in any month.

The daily annual range in temperature is small. A few frosty mornings occur during the winter but the temperature seldom drops below freezing. Winter temperatures generally rise to the high 50°s in the early afternoon.

The summer weather is dominated by a cool sea breeze resulting in an average summer wind speed of nearly 15 mph. Winds are light in the early morning but normally reach 20 to 25 mph in the afternoon.

A sea fog, arriving over the area during the late evening or night as a low cloud, is another persistent feature of the summer weather. This high fog, occasionally producing drizzle or mist, usually disappears during the late forenoon. Despite the morning overcast summer days are sunny. On the average a total of only 14 days during the four months from June through September are classified as cloudy.

Daytime temperatures are held down both by the morning low overcast and the afternoon strengthening sea breeze, resulting in daily maximum readings averaging about 70 degrees from May through August. However, during these months occasional hot spells, lasting a few days, are experienced without the usual high fog and sea breeze. September, when the sea breeze becomes less pronounced, is the warmest month with highs in the 70°s. Low temperatures during the summer are in the mid-50°s.

A strong temperature inversion with its base usually about 1,500 feet persists throughout the summer. Inversions close to the ground are infrequent in summer but rather common in fall and winter. As a consequence of these factors and the continued population and economic growth of the area, atmospheric pollution has become a problem of increasing importance.

Climatological data for the area are summarized in Table 4-2. Data were collected at the National Weather Service meteorological station at the San Francisco international Airport.

Temper	ature		Wind		
Average Minimum (°F)	Average Maximum (°F)	Precipitation Average (Inches)	Average Speed (MPH)	Average Direction	
41.5	55.5	4.65	7.2	WNW	
44.1	59.0	3.23	8.7	WNW	
44.9	60.6	2.64	10.5	WNW	
46.6	63.0	1.53	12.2	WNW	
49.3	66.3	0.32	13.4	W	
52.0	69.6	0.11	13.9	W	
53.3	71.0	0.03	13.6	NW	
54.2	71.8	0.05	12.7	NW	
54.3	73.4	0.19	11.1	NW	
51.2	70.0	1.06	9.4	WNW	
46.3	62.7	2.35	7.5	WNW	
42.2	56.3	3.55	7.0	WNW	
48.3	64.9	19.71	10.6	WNW	
	Average Minimum (°F) 41.5 44.1 44.9 46.6 49.3 52.0 53.3 54.2 54.3 51.2 46.3 42.2	Minimum (°F)Maximum (°F)41.555.544.159.044.960.646.663.049.366.352.069.653.371.054.271.854.373.451.270.046.362.742.256.3	Average Minimum (°F)Average (°F)Precipitation Average (Inches)41.555.54.6544.159.03.2344.960.62.6446.663.01.5349.366.30.3252.069.60.1153.371.00.0354.271.80.0554.373.40.1951.270.01.0646.362.72.3542.256.33.55	Average Minimum (°F)Average (°F)Precipitation Average (Inches)Average Speed (MPH)41.555.54.657.244.159.03.238.744.960.62.6410.546.663.01.5312.249.366.30.3213.452.069.60.1113.953.371.00.0313.654.271.80.0512.754.373.40.1911.151.270.01.069.446.362.72.357.542.256.33.557.0	

#### TABLE 4-2 CLIMATOLOGICAL DATA FOR SAN FRANCISCO INTERNATIONAL AIRPORT, CALIFORNIA

#### 4.5 <u>Ecology</u>

Information concerning threatened and endangered species for the Sunnyvale, California area has been received from the U. S. Fish and Wildlife Service and the California Department of Fish and Game-Natural Diversity Data Base: Rarefind.

The U.S. Fish and Wildlife Service lists the winter-run chinook salmon (<u>Oncorhynchus tshawytsoha</u>), bald eagle (<u>Haliaeetus</u> <u>leucocephalus</u>), American peregrine falcon (<u>Falco peregrinus</u> <u>anatum</u>), Aleutian Canada goose (<u>Branta canadensis leucopareia</u>), California brown pelican (<u>Pelecanus occidentalis californicus</u>), California clapper rail (<u>Rallus longirostris obsoletus</u>), California least tern (<u>Sterna antillarum (albifrons) browni</u>), western snowy plover (coastal population) (<u>Charadrius</u> <u>alexandrinus nivosus</u>), San Joaquin kit fox (<u>Vulpes macrotis</u> <u>mutica</u>), salt marsh harvest mouse (<u>Reithrodontomys raviventris</u>), and bay checkerspot butterfly (<u>Euphydryas editha bayensis</u>) as either threatened or endangered in Santa Clara County. Fourtyfive Federally listed proposed or candidate species are also known to occur Santa Clara County.

The California Department of Fish and Game-Natural Diversity Database: Rarefind lists several endangered species known to occur near Sunnyvale. They include: California clapper rail, California least tern, and salt marsh harvest mouse. No additional information on the occurrence of rare or endangered species or natural communities is known at this time. Other state and federally listed species or unusual natural communities may occur on or in the immediate vicinity of the site.

# 5.0 <u>Real Estate</u>

# 5.1 <u>DOD ownership</u>

No records were located which described the real estate transactions which allowed the military to encamp in Sunnyvale, California. Representatives of Sunnyvale City Hall stated that all real estate transactions prior to 1952 had been destroyed. It was further stated that the site had originally been owned by a local farmer who used it as an orchard. The site was sold to the city, but prior to anything being done the U.S. Army leased the land throughout the Second World War. After the war the land reverted back to the City of Sunnyvale.

## 5.2 Present ownership

The Sunnyvale encampment site has been developed into a city park, single family residences, a senior citizen center, and a public school.

## 5.3 <u>Significant past ownership other than DOD</u>

Prior to being developed into a cantonment area by the U.S. Army the site was an orchard.

# 6.0 <u>OEW/CWM site analysis</u>

# 6.1 <u>Historical summary of OEW/CWM activities</u>

Historical documentation and personal interviews with veterans of the 40th Chemical Company (Laboratory) indicate that the company was stationed in Sunnyvale, California for billeting and administrative purposes because of the locations close proximity to Stanford University in Palto Alto, California.

Unit veterans indicate that unit technical personnel conducted chemical research and training classes at Stanford University.

## 6.2 <u>Records Review</u>

The locations listed below were searched for records relating to OEW/CWM activities at Sunnyvale, California during January and February 1994.

Notes on records reviewed follow each entry. At the National Archives and Federal Records Center, the research team examined the following record groups (RG) as they were available and as initial inquiry led the team to believe they might contain useful information. As at other repositories, the research team used finding aids and records managers to locate documents relevant to its research.

RG	26	-	Records	of	the	Coast Guard
RG	77	-	Records	of	the	Office of the Chief of Engineers
RG	112	-	Records	of	the	Surgeon General's Office
RG	121	-	Records	of	the	Public Buildings Service
RG	156	-	Records	of	the	Chief of Ordnance
RG	160	-	Records	of	the	Headquarters Army Service Forces
RG	175	-	Records	of	the	Chemical Warfare Service
RG	269	-	Records	of	the	General Service Administration
RG	270	-	Records	of	the	War Assets Administration
RG	336	-	Records	of	the	Chief of Transportation
RG	338	-	Records	of	the	United States Army Commands
RG	392	-	Records	of	the	Coastal Artillery Districts and
			Defenses	5		-
RG	394	-	Records	of	the	U.S. Army Continental Commands
RG	407	-	Records	of	the	Adjutant General's Office

6.2.1. <u>National Archives, Washington, DC</u>: No information regrading Sunnyvale, CA was copied at this repository.

6.2.2. <u>National Archives, Suitland, MD</u>: Information regarding the bivouac area of the 40th Chemical Laboratory Company was copied from RG 112, Entry 31, Box 974.

6.2.3. <u>Washington National Records Center, Suitland, MD</u>: No information regarding Sunnyvale, California was copied at this repository. 6.2.4. <u>National Archives - Pacific Sierra Region, San</u> <u>Bruno, CA</u>: No information regarding Sunnyvale, California was copied at this repository.

6.2.5. <u>Federal Records Center, San Bruno, CA</u>: No information regarding Sunnyvale, California was copied at this repository.

6.2.6. <u>National Personnel Records Center, St. Louis, MO</u>: No information regarding Sunnyvale, California was copied at this repository.

6.2.7. <u>Historical Office, U.S. Army Chemical & Biological</u> <u>Defense Agency (CBDA), Aberdeen Proving Ground, MD</u>: A unit roster for the 40th Chemical lab. Co. was copied. Transfer orders for the 40th Chemical Lab. Co. from Camp San Luis Obispo to Sunnyvale was copied. A file on the 40th Chem. Lab. Co.is located in the unit histories cabinet.

6.2.8. <u>United States Geological Service, San Mateo, CA</u>: Aerial photos of the Washington Park area from 1939 and 1960 were obtained. Additionally, topographic maps of the Sunnyvale area were copied.

6.2.9. <u>California State Archives, Roseville, CA</u>: No information regarding Sunnyvale, California was copied at this repository.

6.2.10. <u>California Historical Society, San Francisco, CA</u>: No information regarding Sunnyvale, California was copied at this repository.

6.2.11. <u>U.S. Army Corps of Engineers, Sacramento District,</u> <u>Sacramento, CA</u>: No information regarding Sunnyvale, California was copied at this facility.

6.2.12. <u>Western Facilities Engineering Command, San Bruno,</u> <u>CA</u>: No information regarding Sunnyvale, California was copied at this facility.

6.2.13. <u>Sunnyvale Public Library, Sunnyvale, CA</u>: An article from the *Sunnyvale Standard*, preserved on microfilm, was copied detailing the offer of a chemical class to be taught at Stanford University.

6.2.14. <u>Sunnyvale Historical Society & Museum Association,</u> <u>Sunnyvale, CA</u>: No textual information was copied at this repository. However, the recollections of some of the members indicated a military presence in the Washington Park area during the time in question.

#### 6.3 <u>Summary of interviews</u>

Both telephonic and personal interviews were conducted while gathering information for the completion of this report. The majority of people contacted could provide no information about the 40th Chemical Company's activities while in Sunnyvale, California. Copies of the individual telephonic or personal conversation record sheets are assembled in chronological order and located in Appendix E.

The most productive interviews were the written responses provided by veterans of the 40th Chemical Company in response to the questionaire mailed to them. Copies of their correspondence are located in Appendix C-3.

#### 6.4 <u>Site inspection</u>

During the period 7-18 February 1994 three personnel from the St. Louis District Corps of Engineers travelled to the San Francisco, California area to perform archival research and personal interviews concerning Ft. Mason, Ft. McDowell, Camp Stoneman, Emeryville Ordnance Depot, and Sunnyvale, California. The St. Louis District personnel were Mr. Daniel Bradley and Mr. Charles Camillo of PD-AC and Mr. Robert Tenholder of PM-M. A synopsis of their visit follows:

6.4.1. <u>Monday, 7 February 1994</u> - The site survey team left the Lambert-St. Louis International Airport at approximately 0915 hours. They arrived at the San Francisco International Airport at approximately 1240 hours. From there they travelled by car to their hotel where they checked in and ate lunch.

Lunch was completed at approximately 1400 hours. As it was later in the afternoon and raining heavily, traffic on the highway system was moving slowly. It was decided that the team's time would be best utilized in returning to their rooms to coordinate the next days appointments and to work on each team member's section of the reports.

6.4.2. <u>Tuesday, 8 February 1994</u> - On this day Mr. Tenholder performed personal interviews and conducted research concerning Ft. Mason, California.

While Mr. Tenholder was performing his interviews, Mr. Camillo and Mr. Bradley began their research, departing the hotel at 0730 hours for Sunnyvale, California. The archivist team met with Mr. Kartman and Mrs. Walz, employees of the Sunnyvale City Library, both had previously been contacted by district personnel. Neither individual had any additional information on the 40th Chemical Laboratory Company, stationed in Sunnyvale. In the afternoon the archivists reviewed the library's microfilm copies of the <u>Sunnyvale Standard</u> from the period January through November 1943. An article concerning chemical training, given by the army at Stanford University, was copied. No additional information was uncovered. The archivist team returned to the hotel at 1530 hours and contacted the San Jose Public Library, Reference Section. The reference librarian was asked about information concerning the 40th Chemical Laboratory Company. She stated she would check for information on the unit and would contact the team concerning her finds at a later date.

At 1545 all research team members met to discuss the days findings and plan the next days activities.

6.4.3. <u>Wednesday, 9 February 1994</u> - On this day the research team investigated Ft. McDowell/Angel Island and the Emeryville Ordnance Depot.

6.4.4. <u>Thursday, 10 February 1994</u> - On this day the research team investigated Camp Stoneman, Pittsburg, California.

6.4.5. <u>Friday, 11 February 1994</u> - At approximately 0530 hours the research team checked out of the hotel and travelled to the San Francisco International Airport for the return flight home.

6.4.6. <u>Monday, 14 February 1994</u> - The site survey team to include Ms. Charlene Boecklen of PM-M left the Lambert-St. Louis International Airport at approximately 0915 hours. They arrived at the San Francisco International Airport at approximately 1115 hours. From there they travelled by car to Emeryville, California where they performed the site survey of the Emeryville Ordnance Depot.

6.4.7. <u>Tuesday, 15 February 1994</u> - On this day the research team investigated the Hanford CWS Warehouse in Hanford, California.

6.4.8. <u>Wednesday, 16 February 1994</u> - Prior to the site survey team leaving the hotel, personnel from the St. Louis District office telefaxed to the site survey team copies of four letters sent to the district from veterans of the 40th Chemical Laboratory Company. These letters provided valuable information about the activities of the 40th while stationed at Sunnyvale.

At 0800 hours the site survey team left the hotel for Sunnyvale, California. They arrived at Sunnyvale at approximately 0840 hours and went to the office of Commander Ralph Hearnes, Sunnyvale Police Department. The Commander was occupied in a meeting where he would be for several more hours. Cmdr. Hearnes had already discussed with Mr. Tenholder by telephone everything he had found out about the military being in Sunnyvale during World War II, but it was hoped that by meeting with the Cmdr. Hearnes personally and briefing him of new information that the site survey team had discovered that he might be able to provide even more information. The team left without meeting Cmdr. Hearnes.

The team then walked to the office of the Sunnyvale City Manager. There they met with Mr. Hira Raina, Assistant City Engineer, and Mr. Robert Walker, Superintendent of Parks. Mr. Walker stated that the plans were being made to rehabilitate Washington Park where the 40th Chemical Laboratory Company had been bivouacked. He was also unaware of any type of military debris ever being found at the park. Mr. Raina assigned one of his employees to try and locate any old plans of the park that might be in the city's files. This employee will contact the site survey team if he finds any maps.

The site survey team next travelled to Washington Park and conducted a survey of the park grounds. The park is very well maintained and no sign of any military debris was seen by the survey team. Two maintenance men who worked at the park were questioned and neither had ever seen any evidence of military debris at the park.

The team then travelled to the Sunnyvale Chamber of Commerce and obtained a copy of a current city map for inclusion in the archive search report. The site survey team left Sunnyvale, California at approximately 1000 hours, arriving back at their hotel at approximately 1030 hours. There the team spent the remainder of the day continuing work on their sections of the archive search reports, coordinating the remaining site surveys, and interviewing more individuals by telephone.

6.4.9. <u>Thursday, 17 February 1994</u> - At 0730 hours the site survey team left the hotel and proceeded to San Mateo, California. There they met with Mr. Michael Moore of the USGS aerial photography archive section. Mr. Moore explained the volume of historical data stored at his facility and the research system that was available to identify which photographs covered which area. Mr. Moore provided copies of 1939 and 1960 aerial photographs of Washington Park, in Sunnyvale, CA. He also provided several historic topographic maps of the Sunnyvale area. While reviewing these topographic maps it was noticed that the bivouac area had been larger that originally suspected and that the site survey team had not inspected the entire area.

The survey team left the USGS facility at approximately 0915 hours and proceeded back to Sunnyvale to inspect the area which had been overlooked the previous day. When the team arrived at Washington Park it was noticed that the area unexplored the previous day was occupied by residential homes, a senior citizen center and a school which was being renovated. No indication of military debris being left behind at the site was noticed. The survey team left Sunnyvale at approximately 1015 hours and travelled north to Ft. Mason. The remainder of the day the team spent performing the site survey of Ft. Mason, San Francisco, California.

6.4.10. Friday, 18 February 1994 - In the morning the survey team members worked on their sections of the archive search reports. At 0900 hours the team checked out of the hotel and travelled to the San Francisco International Airport for the return flight home.

#### 6.5 Air photo interpretation

Photo analysis and land use interpretation were performed for the site with the use of aerial photography from 1939, 1948, 1963, 1974, 1984, and 1992. The Mountain View and Cupertino, California, USGS quadrangle maps were used as a reference for the photography. The approximate negative scale of the photography is as follows:

Photography Date	Scale	Source	Identifier(s) <u>Frame(s)</u>
31 Jul 1939	1" = 1,500'	USGS	CIV-285-84
26 Sep 1948	1" = 1,967'	EROS	2-145
3 Jul 1963	1" = 1,667'	Geonex	SCL 2-186

The 1939 aerial photography shows the site to be covered with orchards. A residential area lies to the east and north of the site. Orchards lie to the west and south of the site. On the 1948 photography a park has been established in the center of the site with ball diamonds, open fields, etc. The residential areas have grown but orchards still surround the site on the west and south. On the 1963 photography a school is now located south of the park and the surrounding area is totally residential. The orchards are no longer present. There are no indications on the available photography of chemical warfare material (CWM) storage or disposal areas or activities.

6.5.1. <u>Map Analysis</u>. - The site was analyzed by referencing the USGS 7.5 minute quadrangle sheets for Mountain View 1961, photorevised 1981, and Cupertino 1961, photorevised 1980, California. The center of the site is located at 37° 22' 45" North Latitude by 122° 2' 15" West Longitude in Sunnyvale, California.

Additional quadrangle maps used as reference include the Palo Alto, California 1948, USGS 15 minute and the Mountain View, California 1953, USGS 7.5 minute maps. The 1948 quadrangle map shows several rows of dwellings on the site located in the within the southwest corner of the boundary of Sunnyvale. The area west and south is shown as open fields and a network of roads is shown to the east and north. The 1953 map indicates a park in the center of the site and the Pastoria School to the south of the park. The area to the west is orchards and the area to the east is showing only a grid of roads as in a residential area. The 1961 quadrangle, photorevised 1981, shows a grid of residential streets surrounding the site. The two schools are now shown south of the park and are labeled as the Benner School and the Adair School. There are no indications on the available quadrangle maps of CWM storage or disposal areas or activities.

# 7.0 Evaluation of ordnance contamination

# 7.1 <u>CWM contamination</u>

Investigation of historical records provided little information concerning the activities of the 40th Chemical Company while stationed in Sunnyvale. The archivists were able to locate a unit roster and from that information arrangements were made through the Veterans Administration for a questionnaire to be sent to all remaining veterans. The veterans that responded to the questionnaire provided valuable information. It appears from their responses that only routine military training (drill and ceremonies, parade calls, classes, etc.) was accomplished in Sunnyvale while the troops were there. The troops were merely billeted in the park while the technical personnel of the unit received additional chemical training at Stanford University. One individual stated that he had conducted library research on toxicology subjects. No other specifics were obtained about what type of training was accomplished at Stanford University, except to say that the training involved the laboratory.

Several of the veterans stated they had drops of mustard agent placed on their arms as a demonstration. One stated that he had gas mask training involving Phosgene while stationed at Camp San Luis Obispo prior to coming to Sunnyvale. No veteran stated that any chemical agents were present at Sunnyvale, California.

There is no evidence that any chemical warfare agents or materials were stored at the Washington Park bivouac site in Sunnyvale, California.

# 7.2 <u>Conventional contamination</u>

There is no evidence of any conventional ammunition being stored at the Washington Park bivouac site in association with the 40th Chemical Company (Laboratory) deployment there.

# 8.0 <u>Conclusions and Recommendations</u>

# 8.1 <u>Conclusions</u>

It is concluded that the Washington Park bivouac site has no ordnance or explosive waste, either chemical or conventional, remaining on its property. The camps purpose was strictly for administrative and cantonment purposes.

If any chemical agents were involved with the 40th Chemical Company's stay in Sunnyvale that contact was at Stanford University.

The Risk Assessment probability quotient is an "IMPROBABLE". The Risk Assessment severity quotient is a "NEGLIGIBLE". The overall Risk Assessment code is a "5".

## 8.2 <u>Recommendations</u>

It is recommended that the any further investigation into ordnance and explosive waste at the 40th Chemical Laboratory Company bivouac site in Washington Park, City of Sunnyvale, California be terminated at this time.

# APPENDIX A

ć

:

# REFERENCES

Ordnance and Explosive Waste Chemical Warfare Material Archives Search Report FINDINGS for the former Sunnyvale Santa Clara County, California Site Number - J09CAT98300

#### APPENDIX A

#### REFERENCES

Unknown

1943 Stanford Offers Free Chemical Course. <u>Sunnyvale</u> <u>Standard</u> (Sunnyvale, CA). February 1943.

Unknown

- 1991 National Oceanographic and Atmospheric Administration, Local Climatological Data, Annual Summary with Comparative Data, San Francisco, California International Airport
- Alt, David D., and Hyndman, Donald W. 1975 Roadside Geology of Northern California, Mountain Press Publishing

Kashiwagi, James H., and Hokholt, Lisa A.

1991 Soil Survey of San Mateo County, Eastern Part, and San Francisco County, California, USDA, Soil Conservation Service, in cooperation with the Regents of the University of California (Agricultural Experiment Station)

Office of the Surgeon General (Army)

1943 Sanitary Report for the month of February 1943, submitted to Adjutant General's office. National Archives, Suitland, MD. RG 112, Entry 31, Box 974.

# APPENDIX B

ACRONYMS

Ordnance and Explosive Waste Chemical Warfare Material Archives Search Report for the former Sunnyvale City of Sunnyvale, CA Site Number - J09CAT98300

# APPENDIX B

# ACRONYMS

ASR	Archive Search Report
CERCLA	Comprehensive Environmental Response, Compensation
	and Liability Act
CEHND	Corps of Engineers, Huntsville Division
CWM	Chemical Warfare Material
CWS	Chemical Warfare Service
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program
DOD	Department of Defense
EOD	Explosives Ordnance Disposal
EODCC	Explosives Ordnance Disposal Command and Control
EPA	Environmental Protection Agency
ERDA	Environmental Restoration Defense Account
FUDS	Formerly Used Defense Sites
HTW	Hazardous and Toxic Waste
INPR	Inventory Project Report
IRP	Installation Restoration Program
MCX	Mandatory Center of Expertise
NCP	National Contingency Plan
OEW	Ordnance and Explosive Waste
RAC	Risk Assessment Code
RG	Record Group
SARA	Superfund Amendments and Reauthorization Act
USACE	U.S. Army Corps of Engineers
USADACS	U.S. Army Defense Ammunition Center and School
USAEDH	U.S. Army Engineer Division, Huntsville, AL
WRNC	Washington National Records Center

# APPENDIX C

# **REPORTS/STUDIES/LETTERS/MEMORANDUMS**

- C-1 Office, Medical Detachment Headquarters Correspondence, dated 31 March, 1943, Subj: Sanitary Report for Month of March 1943
- C-2 Extract from <u>The Chemical Warfare Service: Organizing for</u> <u>War</u>, 1959
- C-3 Responses to letters sent to veterans from the 40th Chemical Laboratory stationed in Sunnyvale, CA
- C-4 Archive Record Search Log, National Personnel Record Center, St. Louis, MO, National Archives, Pacific Sierra Region, San Bruno, CA, Federal Records Center, San Bruno, CA, National Archives Record Administration, Military Reference Branch, Washington, DC, National Archives Record Administration, Suitland, MD, and National Archives Downtown Facility, Washington, DC
- C-5 Site Survey Team Briefing Sheet

# **APPENDIX C-1**

# Office, Medical Detachment Headquarters Correspondence, dated 31 March 1943, Subj: Sanitary Report for March 1943

MEDICAL DETACHMENT HEADQUARTERS II ARMORED CORPS

> San Jose, <sup>C</sup>alifornia. March 31, 1943

SUBJECT: Sanitary Report For Month of March, 1943.

TO

: Commanding Officer, 40th Chemical Laboratory Company, ( Sunnyvale, California, (Through Command Channels to the Adjutant "eneral, Washington, D.C.)

# 1. ENVIRONMENTAL SANITATION

a. This unit is bivouacked in the former park at Sunnyvale, California. The buildings are of rough 21. 5-11 4.0 th frame construction, some of the wood having been unseasoned. Their floors are inadequate in that cracks of various widths separate the boards, permitting draughts. The roofs of these buildings leak in wet weather and the oil burners that furnish heat for the building are occasionally out of commission. The terrain is such that pools of water tend to colect, causing a mosquito menace. There is an adequate number of showers for the strength of the command. Foot baths are used, and the solution changed daily. Latrines are kept clean and are of sufficient number. Drinking water is piped from the city supply. Mess Hall

b. There is no meat block, an old table serving for that purpose. There are no condiment containers. Those improvised have been improved but are still inadequate. The degree of refrigeration in the ice box is not sufficiently low for proper preservation of perishable foods. Because of the use of field ranges, food, in order to be served on time, must be prepared too far in advance of its beingserved. This decreases its palatibility. Garbage is properly sorted, precautions have been taken for prevention of fly breeding. There is no food wastage.

2. PERSONAL HYGIENE

a. Physical inspection of this command was done on March 23 rd and personal hygiene found satisfactory. Immunizations have been completed.

# 3. UNDUE PREVALENCE OF ACUTE COMMUNICABLE DISEASES

a. None have prevailed

# 4. <u>NEW OR IMPROVED ADMINISTRATIVE MEASURES AND SANITARY</u> <u>APPLIANCES</u>

a. New floor in mess hall.

- b. Personal cleanliness and military courtesy of mess personnel has improved.
- c. Meat hooks have been placed in the ice box.
- d. Sufficient hot water is now obtained through the use of gas heaters.

#### 5. RECOMMENDATIONS

- a. Correction of floors and roofs in barracks.
- b. Correction of faults in mess hall.
- c. Prevent poolingof water by filling in with crushed rock or by drainage ditches.

krunar 1st Lr. n.c. I. HERMAN

Lst Lt., Medical Corps Inspecting Officer

)

#### lst Ind.

HEL/flk

40th Chemical Laboratory Company, Sunnyvale, California, April 1, 1943.

To: Adjutant General, Washington, D. C. TIRU: Commanding General, II Armored Corps, San Jose, California.



Med Det Hq II Armd Corps, San Jose, Calif, March 31, 1943, subj: Sanitary Report for Month of March, 1943, (40th Chem Lab Co).

721.5 GNPXS

2nd Ind.

WAL/gjs

SURG

HEADQUARTERS, II ARMORED CORPS, San Jose, California, April 2, 1943.

TO: Commanding Officer, 40th Chemical Laboratory Company, Sunnyvale, California.

For corrected indorsement of action taken on deficiencies reported in Sanitary Report, in compliance with par. 2c AR 40-275, and return of all papers of this report to this headquarters.

11112 By command of Major General GILLEM: RECEIVED **FECO3** APR 3 1943 Oth CML LAB CO H IRD. lst Lt., AGD, Asst. Adj. Gen. 3d Ind. HEL/ab

40TH CHEMICAL LABORATORY COMPANY, Sunnyvale, California, April 6, 1943.

To: Adjutant General, Washington, D. C. THRU: Commanding General, II Armored Corps, San Jose, California.

1. All roof leaks have been repaired; but a small amount of leakage occurs around windows when rain is blown against them. No tongue and groove flooring is available for the barracks buildings.

2. Meat block will be requisitioned. Condiment containers have been on requisition for some time. There are no provisions at Camp Sunnyvale for refrigeration other than that in use, and no stoves are available other than the field range.

3. Work is progressing slowly on prevention of pooling of water. This work cannot proceed more rapidly without serious interference with training schedule.

Commanding

MORACE E HE II AMATTED COR Capt. 40th Cml Lab Co

MED Med Det Hq II Armd Corps, San Jose, Calif, March 31, 1943, subj: Sanitary Report for Month of March, 1943, (40th Chem Lab Co). 721.5 GNPXS 4th Ind. WAL/gjs HEADQUARTERS, II ARMORED CORPS, San Jose, California, April 7, 1943. Commanding General, Army Ground Forces, Army War Col-T0: lege, Washington, D. C. APR 1143 PH Approved. For the Commanding General: :. \*2 145 RECORDED READQUARTERS II ARMORED CORPS H. BURGER. Colonel, AGD, RECEIVED Adjutant General. REC'D MED.SEC. APR 121343

721.5 (40th Clm Lab Co) - GNMED 5th Ind. (3 - 31 - 43)HEADQUARTERS ARMY GROUND FORCES, Army War College, Washington, D. C., April 13, 1943.

To: The Surgeon General, U S. Army, Washington, D. C.

Approved.

4 : Lo

3

For the COMMANDING GENERAL:

HARTFORD. Medical Corps, olonel Ground Surgeon . ant ୍ୱର 5 <u></u>

ۍ:

MEDICAL DETACHMENT HEADQUARTERS II ARMORED CORPS

> San Jose, California March 31, 1943

SUBJECT: Venereal Supplement, Appendix To Sanitary Report

TO : Commanding Officer, 40th Chemical Laboratory Company, Sunnyvale, California (Through Command Channels to the Adjutant General, Washington, D.C.)

1. Adequate measures for control of venereal disease has been installed. A 24 hour prophylaxis service is maintained by this installation and all personnel reporting have been given proper prophylaxis. Company commanders have been advised to bring in all personnel who are sufficiently under the influence of intoxicants to impair the good judgment of the soldier.

2. No cases of venereal disease from this command for the Month of March, 1943.

3. Physical inspection of all personnel was done on March 23rd, 1943.

Herman 1st Rome.c.

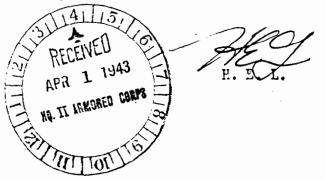
I. HERMAN lst Lt., Medical Corps Inspecting Officer

lst Ind.

HEL/flk

40th Chemical Laboratory Company, Sunnyvale, California, April 1, 1943.

To: Adjutant General, Mashington, D. C. THRU: Commanding General, II Armored Corps, San Jose, California.



# **APPENDIX C-2**

# Extract from The Chemical Warfare Service: Organizing for War, 1959



MAJ. GEN. WILLIAM N. PORTER, Chief of Chemical Warfare Service, World War II. UNITED STATES ARMY IN WORLD WAR II

The Technical Services

# THE CHEMICAL WARFARE SERVICE: ORGANIZING FOR WAR

by

Leo P. Brophy and

George J. B. Fisher



OFFICE OF THE CHIEF OF MILITARY HISTORY DEPARTMENT OF THE ARMY WASHINGTON, D.C., 1959 there were personnel organizations, such as the Indianapolis Depot and the Deseret Depot. At other depots such as Eastern, Midwest, and Gulf, the administration of training was the function of the training unit of the adjoining arsenal.

## Training in the Procurement Districts

The most pressing manpower need of the procurement districts in the early part of the war was for inspectors. In the emergency period, as indicated above, newly hired inspectors were sent from the districts to Edgewood Arsenal for training. These employees upon their return to the districts helped train more recently hired inspectors. Once war got under way this method could not satisfy the greatly expanded need for inspectors.

To fill this need, the Chemical Warfare Service began an intensive drive to procure female as well as male employees. It scoured the colleges in the procurement districts for women who would qualify as inspector apprentices. Once trained, those college women did excellent work. For certain types of inspection, such as that of munitions, the training standards were lower, and a high school, vocational school, or even a grade school education was considered sufficient background. The minimum requirement for inspectors of chemicals always remained high: a college background in chemistry or chemical engineering.

The training of new inspectors was carried out in co-operation with the city and state departments of education and with various private schools. In the San Francisco district, for example, a course for inspectors was inaugurated in December 1941 in co-operation with the California State Department of Education. This course included instruction in measuring instruments and gauges, basic metallurgy as applied to inspection, and miscellaneous subjects such as principles of spring design and testing. The state of California furnished teachers for this course. In other districts, such as Boston, training was conducted almost entirely in private educational institutions such as the Durfee School at Fall River or Northeastern University in Boston. In still other districts, like Dallas, the district training unit itself conducted training courses for inspectors; a well-qualified civilian put in charge laid out the courses of instruction, obtained suitable texts, and arranged for the procurement of training films and other training aids."

#### PERSONNEL MANAGEMENT

#### Utilization of Employees

There was an extravagant waste of manpower in many war industries during World War II. This waste occurred not only in government plants but also in those operated by private industries. In some instances, cupidity or mismanagement or a combination of both was responsible. In a greater number of cases the cause was due to other factors, the most important being the extremely rapid expansion of the industrial facilities of the country as a result of the demand for matériel in the first year of the war. Contracts were let out to corporations or individuals who never had had experience in manufacturing the particular items called for in the contract. They had to learn by trial and error. Among other things, these manufacturers were totally unacquainted with the best methods of employing manpower in their plants, a technique they had to learn as time went on. Older government plants had a certain amount of experience, of course, in producing their particular products, but the tremendous increase in the demand for more and more of all types of items led them to place secondary emphasis on the conservation of manpower. The newer government plants, like the industries which converted to wartime manufacture, were in a more serious predicament.

The Chemical Warfare Service, like the other technical services, was faced with the problem of conserving manpower. As early as July 1942 the Commanding General, ASF, called attention to the need for better use of personnel. He informed the Chief, CWS, that many of the War Department offices were not using their employees to best advantage and urged a survey to ascertain the number and function of clerical workers by grade.<sup>78</sup> This was the beginning of a drive by General Somervell to conserve manpower, a drive which was to continue throughout the wartime period. Time and again he reiterated, either through personal statements or through official administrative action, the necessity for efficient utilization of personnel, both military and civilian.<sup>79</sup> In conformity with this policy great emphasis was placed on work simplification and work measurement programs throughout the ASF.<sup>80</sup>

<sup>&</sup>quot; Ltr, Ex O Inspection Off DCWPD to C CWS (Through C Inspection Div OC CWS), 14 Dec 43, sub: Recommendation for Award of Emblem for Meritorious Civ Serv. CWS 200.6.

<sup>&</sup>lt;sup>18</sup> Memo, CG SOS for C CWS, 21 Jul 42.

<sup>&</sup>quot;(1) ASF Adm Memo S-1, 10 Oct 42. (2) Ltr, CofS ASF to C CWS, 18 Jan 43. CWS 200. (3) Memo, CofS ASF for C CWS, 27 Jul 43, sub: Reduction in Operating Pers. CWS 223. (4) Address of CG ASF to Conf of Pers Contl Units of Tech Servs, Washington, D.C., 18 Jan 44. CWS 337.

<sup>&</sup>lt;sup>40</sup> Work measurement consisted of comparing the amount of work performed by the same organization at different periods of time, or comparable organizations at the same period of time, by indicating a ratio of personnel to workload.

Units	31 Dec 41 <sup>b</sup>	30 Jun 42	31 Dec 42	30 Jun 43	31 Dec 43	30 Jun 44	31 Dec 44	30 Jun 45	15 Aug 45 (V-) Day)	2 Sep 45•
Total	14	98	197	289	264	263	269	283	294	298
Chemical Mortar Battalions	2	6	6	10	11	21	25	25	32	32
Chemical Mortar Companies	3	3	3	2	2	2	3	3	7	11
Chemical Smoke Generator Battalions		0	0	0	0	4	6	5	5	5
Chemical Smoke Generator Companies	0	11	28	40	40	33	25	24	22	22
Chemical Companies Air Operations		45	66	99	57	47	49	50	50	50
Chemical Depot Companies (Aviation)	0	7	12	14	20	20	20	20	20	20
Chemical Maintenance Companies (Avia-							1			
tion)	0	0	12	14	6	6	3	3	3	3
Chemical Depot Companies	2	5	8	16	25	23	17	18	18	18
Chemical Base Depot Companies	0	0	0	0	0	9	10	11	11	11
Chemical Maintenance Companies	2	5	9	14	15	16	17	18	18	18
Chemical Decontamination Companies	2	7	19	26	29	17	13	12	12	12
Chemical Processing Companies	1	4	22	36	36	36	39	36	36	36
Chemical Service Battalions	0	0	0	0	0	0	0	3	3	3
Chemical Composite Service and General							ľ	1	Ĵ	
Service Companies	0	2	6	10	16	15	19	20	20	20
Chemical Composite Service Platoons and	-	-	Ť					20	20	20
Detachments	0	0	0	0	0	5	14	27	29	29
Chemical Laboratory Companies		3	6	8	7	7	7	8	8	8
Chemical Composite Battalions	0	0	ŏ	ŏ	l ò	2	2	n n	Ô	Ô

TABLE 9—CHEMICAL WARFARE SERVICE UNITS ACTIVE DURING WORLD WAR II\* (As of dates indicated)

• Data on individual units may be found in Appendix H.

<sup>b</sup> All units shown in this column activated prior to 7 December 1941.

Japanese signed surrender terms.

Source: Historical Data Cards, AGO.

units were authorized for ground forces and recommended a ratio of seven chemical service companies per field army.<sup>3</sup> Arrangements then projected for constituting air chemical service units under the current 84-group AAF program were considered satisfactory.

On the combat side the picture was gloomy. Only two chemical mortar battalions had been authorized—and they were a considerable distance from activation. Yet it was clear that if an adequate complement of service troops was needed in connection with defense against enemy gas attack, weapons troops in substantial numbers were just as necessary for retaliation. The two went hand in hand in any balanced gas warfare program.

<sup>1</sup>Memo, C CWS for ACofS G-4, 13 Dec 41, sub: Adequacies of Service Troops. CWS 381/258 (12-13-41).

#### **REPLACEMENT TRAINING**

In comparison to most other arms and services, as already noted, CWS mobilization at the beginning of 1942 was definitely retarded. This situation had been chronic throughout the period of limited emergency. But, with the development of a full and in fact desperate emergency, the War Department began to view more gravely the manifest shortcomings in the chemical troop program. From January 1942 the military strength of the CWS was to follow a rapidly ascending curve. Yet the handicap of a late start upon an eventually ambitious training program was never entirely overcome.

The strength of the CWS at the end of April 1942 was 1,832 officers and 12,068 enlisted men. Four chemical mortar battalions were in training and by the end of June two more were to be mobilized. The air and ground chemical troop basis as of 25 May 1942 called for 4,970 officers and 47,192 enlisted men. It contemplated the mobilization of 105 ground service units and 105 air chemical units. The Army Supply Program called for the activation of twenty-two more chemical mortar battalions in 1943 and 1944.<sup>4</sup> The sharp increases necessitated an immediate step-up of training activities.

The policy on chemical mortar battalions as worked out in the spring of 1942 made Army Ground Forces responsible for the activation and unit training of these organizations; the officers, unit cadres, and filler and loss replacements were to be trained and supplied by the CWS. Officer requirements for these battalions and for the chemical units in prospect for ground and air forces necessitated immediate enlargement of the modest CWS Officer Candidate School that began operations in January 1942. Troop requirements for nearly thirty-five thousand filler and loss replacements during the remainder of the calendar year forced radical changes in the approach to both individual and unit training. A new and vitalized chemical training program for the Army at large coupled with War Department insistence on more realistic chemical situations in ground force maneuvers combined to give the CWS greatly enlarged training responsibilities.

#### The Upswing in RTC Requirements

Entry of the United States into World War II as an active belligerent presented an immediate challenge to the system of prewar replacement training. If the preparatory training of all individual soldiers under the training center system were to be continued, considerable increase in the number of centers would be necessary. After careful study, the War Department re-

\* See above, Chapter III.

of interior installations. These companies each manned long lines of stationary oil generators, an adaptation of the California orange grove smudge pot. On-the-job training in the operation of these early smoke devices was undertaken as a special CWS project in conjunction with chemical staff personnel of the defense commands involved. In the spring and summer of 1942, the Chief's Office sent Lt. Col. James N. Hinyard to the west coast and to Sault Ste. Marie to demonstrate the use of Mx mechanical smoke generators recently procured by the Chemical Warfare Service.<sup>27</sup>

It was not until the development of the mechanical smoke generator,  $M_I$ , that the organization of mobile smoke generator units became feasible. Companies activated independently after the mechanical generator was included in a revised T/O&E (as contrasted with those new companies formed amoeba-like from existing units undergoing reorganization) received all or part of their training at the CWS Unit Training Center. In all, forty smoke generator companies were activated during World War II.<sup>28</sup>

#### Experimental Company, Jungle Warfare

In September 1943 the Chief, CWS, directed that a special company be organized at Camp Sibert to conduct experiments on methods of reducing Japanese-type pill boxes. This company, consisting of 17 officers and 277 enlisted men, was under rigid training from October 1943 until January 1944. It made use of a number of weapons in its experiments, including the 4.2-inch mortar, portable flame throwers, Thompson submachine guns, carbines, pistols, grenades, and Browning automatic rifles. Early in 1944 the company was deactivated by order of the War Department and its personnel used to furnish cadres to chemical mortar battalions about to be activated.<sup>29</sup>

#### Ground Service Units

Chemical ground service units were those intended to perform technical or service functions of noncombatant nature with the field forces, under either theater, army, or communications zone control. They included chem-



FLAME THROWER DEMONSTRATION, Camp Sibert, Alabama, 1944. ical laboratory, maintenance, depot, decontamination, processing, and composite companies.<sup>30</sup> With the single exception of the 412th Chemical Depot

posite companies.<sup>30</sup> With the single exception of the 412th Chemical Deper-Company they were altogether new organizations with no background of technical experience or military tradition. A considerable number of service type units were Negro units.<sup>31</sup>

Unit training of these organizations was in the main handled by the Chemical Warfare Service. This training was facilitated by the fact that activation of the principal block of units, begun in March 1942, was spread evenly over the next twelve months, during which period eighty-nine service companies were mobilized.

The timing of the mobilization of these chemical service companies viewed against the full background of the war was excellent. Their primary mission was to limit the effectiveness of hostile gas attack; such secondary functions as they undertook were quite incidental to this principal purpose. By the time the War Department General Staff activated them, it had be-

<sup>20</sup> Eleven chemical battalion staffs were organized during the war, seven for smoke generator and four for chemical service battalions. These organizations were not involved in chemical unit training, which was essentially company training.

<sup>a</sup> App. H lists Negro and white units.

308

<sup>&</sup>quot; Interv, CmIHO with Lt Col James N. Hinyard, 20 Jun 55.

<sup>&</sup>lt;sup>28</sup> For employment of smoke units in the zone of interior and overseas see Pritchard, Kleber, and Birdsell, Chemicals in Combat.

<sup>&</sup>lt;sup>28</sup> Ltr, CG Camp Sibert to C CWS, 22 Jan 44, sub: Final Report on the Operations of the Experimental Company, Jungle Warfare. ASF SPTR 370.2 (22 Jan 44).

aviation depot and three aviation maintenance companies were trained by the CWS.

#### Unit Training at Camp Sibert

Chemical Warfare units were well represented in each component of the Army, yet less than half of these organizations received their unit training directly under CWS auspices. The chemical mortar battalions, as indicated, were all trained by the AGF. Two-thirds of the 1942-1943 AAF units were made up from chemical platoons that had been unit-trained at air installations. CWS unit training was thus narrowed to those technical service organizations which were trained at Edgewood Arsenal and Camp Sibert. (Table 11)

IABLE IIWARTIMI	TRAINING OF	CWS SERV	VICE UNITS
-----------------	-------------	----------	------------

Type of unic	Trained at Edgewood •	Trained at Camp Sibert	Trained clsewhere	Trained units activated
Total	30	163	164	337
Smoke generator	8	34	5	40
Air operations	0	28	72	100
Depot, aviation	1	4	15	20
Maintenance, aviation		3	11	14
Depot	2	26	10	37
Maintenance	1	5	14	20
Decontamination	2	10	18	30
Processing	12	36	2	39
Composite-service	1	13	15	28
Laboratory	3	4	2	9

Seven smoke generator, 1 depot, 11 processing, and 1 composite-service companies were trained at Camp Sibert and Edgewood and are included in both columns. Source: App. H.

Although replacement training began at Camp Sibert in July 1942, it was not until August that the CWS formally recommended establishment of its Unit Training Center at that station. By the time the center was officially activated on 5 October 1942, the program for mobilization of chemical service units already was well under way; many of the ground service companies and the majority of the air service companies had been mobilized. Many of the organizations mobilized before October 1942 could not be sent to the new UTC to complete their training, but after 1942 chemical service units activated in the zone of interior normally trained at Camp Sibert. By January 1943, UTC trainees numbered 9,067 as against 5,300 men receiving replacement training. The rapid growth of unit training is indicated in the following figures:

Month	Number of Units
October 1942	0
November 1942	13
December 1942	38
January 1943	54
February 1943	

Internal organization of the UTC differed from that of the RTC in that the replacement training unit was an artificial structure provided merely to facilitate the training of individuals, while the UTC training unit was a tactical organization as prescribed by an official T/O. The training cadre of the RTC unit remained at the center to train succeeding groups of replacements; but the cadre of the UTC organization was "organic"; it was the heart of the unit.

Although unit training was essentially self-training, that is, training of the company by the company, the instruction of the unit by its officers and noncommissioned officers was furthered in many ways by facilities available at the center. It was possible for an organization to work out its own salvation in the matter of unit training; in fact most of the chemical units mobilized before the UTC was activated were obliged to do so. This was a painful process even when, as at Edgewood Arsenal, it was accomplished in a climate of experience and under the shadow of veteran organizations. For a rapid, production-line operation of unit building such as that which confronted the CWS in 1943 there was no substitute for the training center, even though the true role of the center was merely to assist the unit in its effort to train itself.

In devising the organization of a Unit Training Center there were at the start no more than three tangibles from which to work. The approximate number of new units to begin training at stated intervals was known. The mission of each type of organization was understood. And a governing mobilization training program was available. The aggregate number of units to be trained dictated the battalion-regimental echelonment which provided eventually for four regimental groups. It was therefore necessary to develop a type of training center organization which would permit the commanding Specialist training was limited to the first two categories. The first category of jobs required training for duties which had no equivalents in American industry, and the second the adaptation training of men who entered the Army with occupational experience paralleling jobs listed in CWS tables of organization. The first of these requirements was the most exacting, although the number of such jobs in CWS was well below the average for the Army at large. The second requirement, which involved training for military assignment of cooks, clerks, truck drivers, laboratory technicians, and so forth, was slightly above the general Army experience.

In the mobilization training of units it was essential that the initial requirements of the organization for enlisted specialists be fully satisfied, although once the unit had passed to operational status it could be expected to develop many of its own specialist replacements by on-the-job training. For this reason UTC training of specialists was much heavier in volume than was specialist training at the Replacement Training Center. The extent of CWS requirements for specialist training is indicated in Table 13.

Two-thirds of the strength of most chemical service units included men requiring types of training that were beyond the resources of the newly organized company. In many cases the soldier brought with him enough civilian experience to qualify him occupationally under a given specification serial number, the only training required being in the adaption of his trade specialty to military duty. It was the partially qualified or the unqualified, yet likely, trainee who presented the most serious problems to the specialist schooling system.

Specialist training was concentrated in the weeks devoted to technical training and was normally completed in time to permit graduates to participate in their units' final training phase of field operations. Some of this training occupied eight weeks, specifically, the training of clerks, cooks, and automotive specialists.<sup>53</sup> Programs for these courses were prescribed by the ASF and were uniform for all technical branches.

Specialist training of chemical technicians was left to the discretion of the CWS and followed programs prepared by the Training Division, OC CWS. These latter courses of shorter duration were attended during the final weeks of technical training of the unit. (*Table 14*) The aim in specialist training of chemical technicians was primarily to teach the soldier the military application of skills which he already possessed. In most cases it

<sup>45</sup> The automobile mechanic course of six weeks was normally accompanied by the chauffeur course of two weeks.

TABLE 13—ENLISTED SPECIALISTS IN EACH CHEMICAL SERVICE TYPE COMPANY,
World War II

Trade Specialty	SSN	Maintenance	Depot	Processing	Laboratory	Decontamination	Smoke Generator	Composite	Air operations	Total for 8 type companies
Total specialists		61	100	99	30	126	65	77	114	672
Total enlisted strength		(90)	(150)	(141)	(50)	(165)	(131)	(210)	(130)	(1067)
Ammunition handler		0	18	0	0	0	0	24	0	42
Carpenter	050	1	5	0	0	0	0	1	0	7
Chemist	292	0	0	0	12	0	0	0	0	12
Chemical laboratory assistant	411	0	0	8	5	0	0	7	0	20
Chauffeur, truck driver		4	10	3	1	16	28	12	15	89
Clerks	405	4	19	12	3	2	1	9	1	51
Cooks	060	2	3	4	2	3	2	5	3	24
Decontamination equipment operator	809	0	0	0	0	88	0	2	0	90
Electrician	_ 078	1	0	2	0	0	0	1	0	4
Engineman, stationary steam	- 082	0	0	6	0	<b>j</b> 0	0	0	0	6
Gas mask repairing		24	0	0	0	0	0	0	0	24
Machinist	114	6	0	0	0	0	0	0	0	6
Mechanic, automobile	_ 014	2	3	0	0	3	2	1	1	12
Mechanic, general	- 164	10	0	2	0	0	1	3	0	6
Munitions worker (handlers)	- 505	0	0	0	3	0	0	2	0	5
Operator, smoke generator		0	0	0	0	0	24	0	0	24
Pipefitter		2	0	2	0	0	0	1	0	5
Pumpman	220	0	0	0	0	14	0	0	0	14
Radio Operator	767	0	0	0	0	0	4	0	0	4
Sewing machine operator		8	0	0	0	0	0	2	0	10
Technician physical laboratory		1 0	0	0	1	0	0	1	0	2
Toxic gas handler			24	0	2	0	0	6	85	117
Tumblerman			0	60	0	0	0	0	0	60
Utility repairman			0	0	1	0	3	0	9	18
Warehouseman			18	0	0	0	0	0	0	18
Welder, acetylene			0	0	0	0	0	0	0	2

Source: Tables of Organization, World War 11.

was neither possible nor necessary to teach a student a new trade.

In conducting enlisted specialist training, little use was made of the Chemical Warfare School. Two reasons for this may be adduced. One was the distance separating Edgewood Arsenal and Camp Sibert. Another and more compelling reason was the fact that when the Unit Training Center needed such help most, the Chemical Warfare School had little assistance at the Chemical Warfare School was relatively small, the school training of CWS enlisted men was on a still more modest scale. A total of twenty enlisted courses were presented during the war, yet only one was designed for the general training of chemical noncommissioned officers.<sup>12</sup> Early in 1942 a four-week CWS Enlisted Men's Course was approved. This course intended for instruction of senior NCO's who were assigned to staff sections of major tactical units and who needed a broader knowledge of CWS procedures than could be obtained in local training. The course program included chemical matériel, tactics, and technique; training; military administration; and clerical subjects. Seven classes were conducted, each averaging seventy students, the last class terminating 28 November 1942. Since students were drawn from a wide cross section of military organizations, the influence of this training was greater than is suggested by the relatively small numbers involved.

Of the specialist courses for enlisted men, only two were integrated with chemical unit training. The seven-week Laboratory Course was highly technical; officers as well as enlisted men were trained for duty with chemical laboratory companies. The Special Mortar Operations Course trained small groups of enlisted specialists for assignment to the chemical battalions mobilized in 1943 and 1944. The remainder of the enlisted courses conducted at the Chemical Warfare School were primarily for the instruction of those outside the Chemical Warfare Service.

#### Training of Other Arms and Services

At least one out of every three commissioned officers trained at the Chemical Warfare School came from another arm or service. The number of students from naval components was greater than the total sent by either the Army Ground Forces or the Army Air Forces. In the enlisted classes, outside students definitely outnumbered those from the Chemical Warfare Service.

Training of students from other branches was essentially specialist training—instruction in some technical phase of protection against gas attack, in the handling of chemical agents in bulk, in the operation of flame throwers, or in the duties of unit gas personnel. Some of the specialist training and the training of unit gas officers and noncommissioned officers was, by prewar concepts, a local training responsibility and not one to be

<sup>12</sup> Ten of these courses were given to three classes or less.

undertaken at the special service school level. But this training developed during World War II into a major activity of the Chemical Warfare School. School administrators regarded the Chemical Warfare Center as the best place for this training for two reasons. The first was the authoritative instruction available at the Chemical Warfare School. The second was psychological in nature. Since gas had not been used, field interest in gas defense training had declined; nevertheless both the War and Navy Departments, in the light of their information on the possibility of gas warfare, insisted upon maintenance of high standards of gas discipline. Unit gas defense training to the specialist school level. And the more thorough training available at that level imbued potential unit instructors with an attitude of realism toward poison gas which was favorably reflected in gas discipline.

Despite the advantages which the Chemical Warfare School offered, outside agencies depended less and less on the school as the war period lengthened. Indications of this development are the action of Army Air Forces in setting up an air chemical school at Barksdale Field, La. (later transferred to Buckley Field, Colo.), and the establishment of the naval chemical warfare school at Dugway Proving Ground. These schools were closer to the technical viewpoints of their arms than was the Chemical Warfare School.<sup>13</sup>

The Unit Gas Officers (UGO) Course was the most active wartime officers course at the Chemical Warfare School, both in number of classes and in students graduated. This course had been developed and improved over a long period of time. Originally one class was conducted each year. The biweekly scheduling of the class, which began early in 1941, was the first tangible step taken at the Chemical Warfare School in the transition from peace to war. Thereafter and until the end of hostilities, UGO classes were conducted almost continuously at the school. The course thus provided a direct link between the school's prewar and its wartime training operations. Although it improved with successive presentations, there was little change in the content of the course.

In the fall of 1942, a sixty-hour course of instruction was outlined for training unit gas officers in unit or local schools.<sup>14</sup> This course was generally followed in training at division or corps levels. The 60 hours of instruction

"(1) Craven and Cate, Men and Planes pp. 650-59. (2) Bernard Baum, Dugway Proving Ground, pp. 100-102. MS.

"FM 21-40, Basic Field Manual: Defense Against Chemical Attack, 7 Sep 42.

346

plans as well as the actual methods of instruction were constantly subject to review and appraisal by the various Army inspectors. The library of lesson plans developed by the school faculty to supply this policy was a major factor in enabling the school to expand its training operations rapidly after the declaration of war.

A criticism repeatedly directed at the school by officers conducting formal inspections of training was against excessive use of the lecture method in the explanation phase of instruction. This practice was gradually discontinued until instructors, probably to too great an extent, were avoiding the use of this useful teaching method. The officially approved conference method of explanation, involving active student participation, was difficult to apply in large classes and was scarcely effective for some types of school instruction. The trend of training procedure was definitely away from the academic and toward more out-of-door work involving demonstrations and group performance of practical problems, even though individual preparation for such exercises was not always perfect. Toward the end of the war an average of 60 percent of a normal fifty-hour training week consisted of outdoor instruction.

Inspectors noted a lack of uniform supervisory control in all academic divisions during the period of transition of the school into a three dimensional institution. This situation was probably a consequence of the fact that the rapid expansion of school capacity, though inevitable, was late. In the rush to develop instructors, the creation of an appropriate supervisory staff was neglected; yet, such a staff was necessary to insure the extension to other divisions of the excellent instructional methods which the Officers Division of the school had developed. The condition improved with time although the instructional standards of the Enlisted Division never seemed to equal those of the other two divisions.

The building block of each course of instruction was the lesson. A group of lessons composed a subcourse. A group of subcourses in turn constituted a course.

Lesson planning required, first, a decision as to the scope of the single lesson within the pattern of the subcourse. The next step was to determine the method best suited to that particular unit of the instructional process lecture, conference, demonstration, or field problem. In the lesson plan such miscellaneous notes as text references, location of exercise, training aids required, and other data useful to succeeding instructors could then be included.

Course planning involved a synthesis of subcourses, each modified to

conform to the objective and scope of the particular course. The subcourses included in the curriculum of the Chemical Warfare School were essentially seven: Agents, Protection, Matériel, Field Operations, Training, Weather, and General Subjects. These subcourses had been taught at the school for many years. Occasionally it was necessary to stretch the meaning of words to accommodate all wartime schooling within this pattern of subcourses although on the whole it served well enough.

The examination step of the instructional procedure was informal when applied to the separate lesson but formal when applied to the subcourse. The questioning of individual students from the platform was principally an interest-sustaining device. Informal quizzes were useful in evaluating instructional procedures as well as the student's progress. Graded problems were also considered in rating the individual. The formal written examination was generally used to determine how well the student had assimilated the instruction pertaining to each subcourse—it was the criterion for graduation.

The Faculty Board met before the graduation of each class to consider the work of individual students. The board included the commandant or assistant commandant, director of the appropriate academic division, the course director, the instructors principally concerned, and the school secretary. Frequently the board was expected to assay the qualifications of CWS officers for particular types of duty or for more extended military training, in addition to determining their elegibility for graduation. When records indicated an average of seventy or above on written work, if the student was otherwise qualified, he was voted a certificate of satisfactory completion of the course. If work in any one subcourse fell below the required standard and the work could not be made up, this subcourse was red-lined from the certificate. When there was a failure in more than one subcourse, the Faculty Board determined whether under Army Regulations the student should be graduated or not.17 This procedure applied both to the Officers Division, where failures were 3.5 percent of all enrollees, and to the Enlisted Division, where failures averaged 3 percent.18

#### Western Chemical Warfare School

The West Coast Chemical Warfare School, as indicated, was established at Camp Beale, Calif., in December 1943 and was transferred to Rocky

<sup>&</sup>quot; AR 350 110, 1 Sep 42.

<sup>&</sup>lt;sup>18</sup> The procedure followed in the Officer Candidate Division for determining eligibility for graduation is described below, Chapter XV.

Mountain Arsenal in May 1944.<sup>19</sup> Before the school opened, instructors were chosen from among former members of the faculty of the Chemical Warfare School at Edgewood and the recently deactivated War Department Civilian Protection Schools at Seattle, Palo Alto, and Los Angeles.<sup>20</sup> It was fortunate that the CWS had access to competent instructors, for the press of administrative duties accompanying the opening of the new school left little time for close supervision of teachers.<sup>21</sup> The authorized courses were:

Unit Gas Officers (4 weeks): Identical with the course standardized at Edgewood Arsenal.

Gas Noncommissioned Officers (4 weeks): Same course as given at Edgewood Arsenal.

Navy Gas Course (Officers) (6 days): Defense of naval forces and shore stations against gas attack; offensive use of chemicals by naval forces.

Navy Gas Course (Enlisted) (3 days): Special duties involved in protection of naval units and stations against gas attack.<sup>22</sup>

CWS Refresher (10 days): To provide a knowledge of recent developments in chemical warfare and to review the principles of defense against gas attack; intended primarily for instruction of CW-trained company grade officers.

CWS Familiarization (10 days): To demonstrate to field and general officers other than CWS the potentialities of chemical warfare in the Pacific Ocean areas.

Air Raid Protection (6 days): Air raid protection measures applicable to military installations and co-ordinated with civilian protection agencies.<sup>23</sup>

The last three courses were obviously of a precautionary nature to be given only under circumstances which fortunately failed to materialize. The remaining courses, two for Army and two for Navy personnel, represented the real working activities of the school. The orientation of this instruction was definitely toward the war against Japan.

Academic procedures at the western school were identical with those developed and practiced at the Chemical Warfare School. The original corps of instructors were all products of the older school, and relieving officers

<sup>19</sup> See above, Chapter VI.

<sup>20</sup> See above, Chapter X.

<sup>21</sup> Memo, C Fld Tng Br OC CWS for CG ASF, 11 Feb 44, sub: Inspection of West Coast Chemical School, Camp Beale, Calif. CWS 333.

"The length of this course was later extended to six days.

<sup>21</sup>(1) ASF Cir 138, 2 Dec 43. (2) Courses at Rocky Mountain Arsenal were a continuation of those given at Camp Beale.

were generally veterans of the Pacific theaters. Eventually, much of the training was in the hands of instructors with combat experience. The total number of graduates at Camp Beale and Rocky Mountain was as follows: 24

Total	0ficers 1,101	Enlisted students 1,571
Army	375	854
Navy, Marine, and Coast Guard		712
WAC	1	5

Careful plans were made at the Western Chemical Warfare School in connection with the redeployment training projected for the final struggle with Japan. Fortunately, it was possible to discard these plans when the enemy capitulated in August 1945, and the school was inactivated in September 1945.25

The Western Chemical Warfare School was an experiment in preparedness which would have paid appreciable dividends had operations in the final stages of World War II taken a different turn. As it was, experience in the conduct of this school demonstrated that, given a nice combination of facilities, training know-how, and proper direction, a gratifying satisfactory end product of instruction will result. The school was small and its immediate training objectives were modest; yet the success with which it accomplished its mission indicated that, if necessary, it could easily have undertaken a more ambitious program.

#### Other Schools

As the war progressed, the CWS gained fresh knowledge on the performance of gas agents under a variety of climatic conditions and means of dispersion, based on scientific data accumulated in tests at chemical warfare experiment stations in Florida, Panama, and Utah. This development and testing work necessitated some review of logistical data and, equally important, some retraining of personnel. The empirical nature of some of the data was such that the CWS cautiously considered the radical revision of its whole training position in the field of offensive gas warfare. Nevertheless, the War Department was convinced that the new information must be passed on to officers assigned to drawing up gas warfare plans.

In September 1943, a group of four Navy officers was sent to Dugway

354

<sup>&</sup>quot; Tabulation of Graduates, Western CW School, 31 Aug 45.

<sup>&</sup>lt;sup>26</sup> ASF Cir 331, 1 Sep 45.

APPENDIX H-15-CHEMICAL LABORATORY	COMPANIES
-----------------------------------	-----------

Unit desig-	Date activated		TR	AINING	OVE	RSEAS SER	VICE		TIVATION OR BANDMENT		CONVERSION OR REDESIGNATION	
nation (1)	(2)	From (3)	To (4)	Place (5)	From (6)	То (7)	Theater (8)	Date (9)	Place (10)	Date (11)	Comments (12)	
1	1 Aug 40	1 Aug 40	12 Mar 42	Edgewood Arsenal, Md.						R12 Mar 42	41 Cml Lab Co	
3•	15 May 41	15 May 41	13 Nov 41	Edgewood Arsenal, Md.		7 Jan 46 23 Sep 46				R12 Mar 42	42 Cml Lab Co	
40		18 Feb 43 13 Oct 43	13 Oct 43 9 Dec 43	Cp. S.L. Obispo, Calif. Sunnyvale, Calif. Ft. Ord, Calif. Edgewood Arsenal, Md.	29 Dec 43	30 Ju! 45	ετο	4 Nov 46	Edgewood Arsenal, Md.			
41	R12 Mar 42	12 Mar 42	20 Apr 43	Edgewood Arsenal, Md.	14 Jul 44	12 Jul 44 22 Jul 45 30 Nov 45	мто	30 Nov 45	Philippines	1 Aug 40	Activated as 1st Cm Lab Co	
42	R12 Mar 42	12 Mar 42	8 Jun 45	Austrana		7 Jan 46 23 Sep 46		23 Sep 46	Hawaii	15 May 41	Activated as 3d Cm Fld Lab Co	
43	26 Aug '42	26 Aug 42	9 Dec 43	Edgewood Arsenal, Md.	16 Dec 43	15 Mar 46	MIDPAC	15 Mar 46	Hawaii			
44				Cp. Sibert, Ala. Edgewood Arsenal, Md.	20 Sep 43	20 Jun 45	ΕΤΟ	20 Oct 45	Edgewood Arsenal, Md.			
45	26 Dec 42	26 Dec 42	11 Oct 43	Cp. Sibert, Ala.		15 Nov 44 12 Nov 45		12 Nov 45	Cp. Kilmer, N. J.			
46	1 Feb 43	1 Feb 43	14 Jan 44	Cp. Sibert, Ala.	22 Jan 44	17 Jan 46	ETO	17 Jun 46	France			
47	25 Jun 43	25 Jun 43	20 Dec 43	Cp. Sibert, Als.				D20 Dec 43	Cp. Sibert, Ala.			
256	C25 Apr 45	25 Apr 45	6 Jun 45	New Guinea	30 Nov 44	1946	SWPA	Existing in 1946	In the Philippines	30 Nov 44	Activated as 256 Cm Svc Det	

Anter States

\* Overseas service dates for the 3d, 42, and 256 units include the entire period overseas regardless of conversions or redesignations.

# Appendix H-16—Chemical Composite Battalions

Unit esig- acion	Date activated		TR 			TRAINING OVERSEAS SERVICE			VICE	INACTIVATION OR DISBANDMENT		CONVERSION OR REDESIGNATION	
(1)	(2)	From (3)	To (4)	Place (5)	From (6)	То (7)	Theater (8)	Date (9)	Place (10)	Date (11)	Comment (12)		
13• 14•	20 May 44	20 May 44	6 Aue 44	Ft. Richardson, Alaska Cp. Sibert, Ala.	15 Mar 44					R 6 Mar 45	13 Cml Svc Bn		
	mits were ha	Y Aug 44	19 Aug 44	Ft. Lawton, Wash.	17 708 11	1946	MIDPAC			R25 Apr 45	14 Cml Svc Bn		

471

APPENDIX H

## **APPENDIX C-3**

Response to letters sent to veterans of the 40th Chemical Laboratory stationed in Sunnyvale, California JAN 27'94 16:01 No.004 P.02

July 29, 1942

LOTH CHEMICAL COMPANY (LABORATORY) CAMP SAN LUIS OBISPO, CALIFORNIA

Morris Late from Authenticated Statements of Service.

ding feneral, VII Army Corps, APO 307, See Fore, Goller 

ation dissification Diflour

The locating information externated from anternation on the second on the second of th

Accepted appointment as 24 Mas Declars (MC) an Sen and is now a Captein, Ownes. Following periods of motive dilut

	20. 1. 1. 1. 1.		1 12 12
	JI look	7.1383.50	A FELLO
		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	An lot
Sector Marine Ser is	.8/4/3	1	$\mathcal{I}_{\mathcal{I}}$
	8/8/3		121155
5			Dates

2. Let Identoment Edgar W. Olarks, 0-352679, Accepted appointment as 2d LA., UM-Res, DEC res vine 14, 1997 and is now a let TA., UM-Res.

Following periods of active dutys

TROM	÷	29	
7/16/39 7/11/10 5/18/12	•	7/29/39 7/27/40 Date:	.•
7/22/10	•	7/21/40	
5/18/42		Dato.	·

2d LAsutonant Louis J. Arent, 0-330594. Accepted appointment as 2d Lt., CA, ORO, pn June 17, 1935 and is now a 2d Lt., CA, on active duty in the OWS. **₿**∙ Following periods of active dutys

FROM		7/12/35		
7/1/32		11 241 22	•	•
		· ••• •• •	•	
7/1/35	,	 Date.	•	

8

112

/12/39

Dato:

2. 2d Liontenant Koith V. Kelly, 0-370496. Accepted appointment as 2d It., PAsRes, ORC, on July 17, 1938 and is now a 2d Lt., FA-Res, ORC, on active duty in the CWS. Following portods of active duty:

Cofe on 235

2d Lieutement Howard H. Kindsvator, 0-317724. Accepted appointment us 2d Lt., Date URC, an Eny 32, 1934 and is now a 2d Lt.; Ow-Res. Following period of active daty: Following period of active daty: 5/19/42 Date.

DA Listrement Richard D. Listen, O.3003034. Commissioned of 14., ADS, on May 30, 3948. Fallowing period of methors Antri 5/20145 Babes

ID:

\$3.

And a second sec

\$/25/16 5/15/42 Date. Builant & Sturrs Date, 20th Ool Oo (Lab) Demonstrate 

n de la com Registra com an an an Araba an Ar Araba an Ara Araba an Arab 

and the first of the part of the 

Image of Mone o	TRI FURME ATT. DW			•==}	· -	<b>Y</b>	:		SHEET	c		SHEET	•
NUMBER       PRESTRICTED	SER!AL		GPAD		SERVICE	SUB UNIT		100	Contraction of the local division of the loc	R E	STA	ATUS	
2NTHLY       PERSONNEL ROSTER NOV3019429176       10         4N       LUIS       OBJSPO       9176         3070875       STEIN GEORGE P       MSC       539CNS       411       6       539       0311112         9128       STEIN GEORGE P       MSC       539CNS       411       6       631       0311112         9128       STEIN GEORGE P       MSC       539CNS       411       6       6324       0311112         9128       STEIN GEORGE P       LSSC       822CNS       411       6       624       0831062         9198140       COHEN OSCAR P       LTEC3       411CNS       292       7       544       0311112         198249       PAMARIELLO VINCENT A       TEC4       411CNS       292       7       544       0311112         3035506       CLUTTER RALPH J       LTEC5       786CNS       411       7       6420002       0311112         3045606       CLUTTER RALPH J       LTEC5       786CNS       411       7       521       0331102         1796475       STALD       TEC5       014CNS       244       7       521       0331102         179521       03100S       MILLIAM F       TEC5       0	NUMBER	NAME OF INDIVIDUAL	GRAD			NO. TYPE	NUMBER TYPE	Ē.₽.	DAY MO, YR	. 000	E DAY	но.	YR-
B128671H0DGES ROY D       LS SC       B312CWS       4111       6       881       03111112         3030192RFBH0LZ VINCENT J       S SC       B24CWS       245       7       624       0831062         P095140COHEN OSCAR P       LTEC3       411CWS       292       7       8949       03111112         198249PANARIELO VINCENT A       TEC3       411CWS       292       7       8941       0311102         5032943REMER ROBERT K       TEC4       411CWS       292       7       8941       0311112         3035506CLUTTER RALPH J       LTEC5       786CWS       411       6       600       7521       0331102         242013RUNIONS WILLIAMS E       TEC5       060CMS       411       6       6521       0331102         242013RUNIONS WILLIAMS E       TEC5       014CMS       411       6       521       0331102         2444       7521       0331102       7       5221       0331102       3112         252604CORCAN LEONARD R       PFC       521CWS       30999       7       521       0331102         252604CORCAN LEONARD R       PFC       521CWS       301       521       0331102         265810HURPHY ALAN P       LPFC       521CWS	ONTHLY PERS	ONNEL ROSTER 40 CML LA		29178 9178	3		in the second		TO: 17007	•			4 
30 3 0 19 2 REBHQLZ VINCENT J       S SC 624 CMS       2445 7 624 0 0631062         19 9 8 140 COHEN OSCAR P       L TEC3 411 CMS       292 7 292 0 331102         21 9 8 249 PANARIELLO VINCENT A       TEC3 411 CMS       292 7 292 0 331102         50 3 29 43 REMER ROBERT K       TEC4 060 CMS       4111 0 5121 0 314112         50 45 14 2 2 MASHKUHN JACK W       TEC4 10 60 CMS       4111 0 5121 0 314112         30 6 56 0 CLUTTER RALPH J       L TEC5 0 60 CMS       4111 0 5121 0 3131102         24 5 14 2 20 18 RUNIONS WILLIAMS E       TEC5 0 50 SCMS       4111 7 411 0 31112         24 4 20 18 RUNIONS WILLIAMS E       TEC5 0 50 SCMS       411 7 521 0 3311 02         26 4 3 0 56 BASSANI JOE       L PFC 521 CMS       30 9 99 7 521 0 33 11 02         26 4 3 0 56 BASSANI JOE       L PFC 521 CMS       30 0 999 7 521 0 33 11 02         26 4 3 0 56 BASSANI JOE       L PFC 521 CMS       30 1 7 521 0 33 11 02         27 86 4 3 SUNDERS EDWARD R       PFC 521 CMS       30 1 7 521 0 33 11 02         26 5 66 HUNTOON WILLIAM J       PFC 521 CMS       30 1 7 521 0 33 11 02         27 6 64 3 SUNDERS EDWARD B       PFC 521 CMS       30 1 7 521 0 33 11 02         26 0 7 661 WULFEKUHLE LEO G       PFC 521 CMS       31 11 7 521 0 33 11 02         27 0 7 64 4 35 ANDERSON VERNOM G       PVT 521 CMS       30 817 7 1521 0 33 11 02 <td>3070875STEI</td> <td>N GEORGE P</td> <td>M S</td> <td>C 539</td> <td><i>c</i>พร</td> <td></td> <td>411</td> <td>6</td> <td>539</td> <td>0</td> <td>3 1 1</td> <td>11</td> <td>S .</td>	3070875STEI	N GEORGE P	M S	C 539	<i>c</i> พร		411	6	539	0	3 1 1	11	S .
3198249 $AMARIFELO$ $VINCENT$ $A$ $TEC3$ $411CWS$ $292$ $0351108$ $5032943$ $REMER$ $ROBERT$ $TEC4$ $060CWS$ $4111$ $6060$ $0718062$ $2451422WASHKUHN$ $JACKW$ $TEC4$ $410CWS$ $4111$ $6060$ $0718062$ $3085506CUUTTER$ $RLPHJ$ $LTEC5$ $786CWS$ $4111$ $6521$ $0331108$ $242013RUNIONS$ $WILLIAM$TEC5505CWS411165210331108242013RUNIONSWILLIAM$TEC5505CWS411165210331108242013RUNIONSWILLIAM$TEC5505CWS411165210331108243058BBASSANIJOELPFC521CWS244752110331108252604CORCRAN LEONARD RPFC521CWS292652210331108292663HUNTOON WILLIAM JPFC521CWS267752210331108292663HUNTOON WILLAM JPFC521CWS267752210331108292663HUNDON WILLAM JPFC521CWS267752210331108399143WELSCORDNPFC521CWS267752210331108399143WELSCORDNPFC521CWS267752210331108399143WENDERSCDRNPFC521CWS267752210331108399143WELSCORDNPFC521CWS2677522103311$					-				824				
9451422WASHRUHN JACK W       TEC4       11CWS       4111       03111112         3085506CLUTTER RALPH J       LTEC5       786CWS       4111       6521       0331108         9154931R0BERTS CERALD D       TEC5       060CWS       9170       9451422       0311112         9179647SMITH ROY M       TEC5       014CWS       4111       75210002       0331108         9643056BASSANI JOE       LPFC       521CWS       24417       5211       0331108         9643056BASSANI JOE       LPFC       521CWS       2444       7521       0331108         9643056BASSANI JOE       LPFC       521CWS       2677       521       0331108         96430562HUNTOON WILLIAM J       PFC       521CWS       2677       521       0331108         96455816HURPHY ALAN P       LPFC       521CWS       3017       7521       0331108         964766WUFFWY ALAN P       LPFC       521CWS       3117       7521       0331108         9607661WUFFKUHLE:LEC G       PFC       521CWS       2147       7521       0331108         9301143WELLS       CORDON       PFC       521CWS       2147       521       035108         940764473BARTLET       PFC       521CWS       30957 <td< td=""><td>09 5140 CO HE</td><td>N OSCAR P Riello Vince.</td><td></td><td></td><td></td><td></td><td>2 9 2 2 9 2</td><td>77</td><td></td><td>0</td><td>311 331</td><td>11</td><td>88</td></td<>	09 5140 CO HE	N OSCAR P Riello Vince.					2 9 2 2 9 2	77		0	311 331	11	88
305300201R0BERTS       GERALD       D       TEC5       060CMS       0160       0160       017       066000       20131112         91796475MITH       ROY       M       TEC5       050CMS       411       7       521955       0311112         91796475MITH       ROY       M       TEC5       014CMS       244       7       521955       0311102         9443056       BASSANIJOE       LPFC       521CMS       2926       6521       0331102         9564260       CORCORAN       LEONARD       PFC       521CMS       2926       6521       0331102         95656       BASSANIJOE       LPFC       521CMS       2926       6521       0331102       2926         950768243       SAUNDERS       EDWARD       PFC       521CMS       3017       7521       0331102         9591143       WILLSAM       P       LPFC       521CMS       3017       7521       0331102         9577824354UNDERS       EDWARD       PFC       521CMS       2144       7521       0331102         9607661       WULFEKUHLE       LEOC       PFC       521CMS       30957       7521       2028098         7456369ANDERSON       VERNON       C <td>50 3 29 4 3 REME 9 4 5 1 4 2 2 WASH</td> <td>R ROBERT K Kuhn Jack W</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>67</td> <td></td> <td></td> <td></td> <td></td> <td></td>	50 3 29 4 3 REME 9 4 5 1 4 2 2 WASH	R ROBERT K Kuhn Jack W						67					
1052604       CORCORAN LEONARD R       PFC       521CWS       292       6       521       0331102         4081718       HAMM ERIC       PFC       055CWS       267       7521       0221112         7220562HUNT00N WILLIAM J       PFC       521CWS       301       7521       0331102         5455818       MURPHY ALAN P       LAFC       521CWS       301       7521       0331102         5455818       GORDON       PFC       521CWS       293       5521       0331102         939143       MELLS CORDON       PFC       521CWS       293       5521       0331102         9607661       WULFEKUHLE:       LEO       PFC       521CWS       244       7521       035102         7307041       ANDERSON ALBIN C       PFC       521CWS       244       7521       2030093         7456369       ABECK FRANGIS X JR       PVT       521CWS       30957       7521       20280992         5405720       ASBECK FRANGIS X JR       PVT       521CWS       30803       7521       20280928         7220864       BEROUIST ARDON R       PVT       521CWS       050       7521       2019092         9644473       BARTLETT JOHN A       PVT	9154931 ROBE 9242018 RUNI	RTS GERALD D ONS WILLIAMS	E TEC	5 060	ocws 5CWS		0  30 4 1 1	67 77 7	015 0 04 5 2 1 50	20	0 3 311	11	8
7456369       ANDERSON VERNON C       PVT       521CWS       30957       7521       2028092         5405720       ASBECK FRANCIS X JR       PVT       521CWS       30803       7521       2030092         7260988       BAUERS EARL C       PVT       521CWS       30803       7521       2030092         9844473       BARTLETT JOHN A       PVT       521CWS       0507       7521       2029092         9844473       BARTLETT JOHN A       PVT       521CWS       0507       7521       2029092         9844473       BARTLETT JOHN A       PVT       521CWS       0507       7521       2029092         7220584       BERQUIST ARDON R       PVT       521CWS       0557       7521       2019092         7170170       BRAUER CERHARD M       PVT       521CWS       0557       7521       202219092         326926       SB5BUDKA JOSEPH A       PVT       056CWS       3444       7521       02211112         7432399       CARROTHERS RAYMOND E       PVT       521CWS       014       7521       08310822         7334402       CLAPHAN DONALD H       PVT       521CWS       316       7521       0280928         7306783       CORNELISEN HOMARD R	1052604 COR 4081718 HAM 7220562 HUN 5455818 MUR 078243 SAUN 9391143 WELL	ORAN LEONARD ERIC OON WILLIAM HY ALAN P DERS EDWARD S GORDON	R PFC PFC J PFC LPFC B PFC PFC	52 05 52 52 52 52	LCWS CWS LCWS LCWS LCWS LCWS		292 267 301 411 293 2:44	6777	521 5221 5221 5221 5221	000000	331 221 331 331 331 331 334	10	8 8 8 8 8 8 8 
	7456369 ANDE 5405720 ASBI 7260988 BAUE 9844473 BAR 7220884 BER 7170170 BRAE 3269885 BUD 7432399 CAR 6189309 CER 7334402 CLA	RSON VERNON CK FRANGIS X RS EARL C LETT JOHN A UIST ARDON R ER CERHARD M A JOSEPH A OTHERS RAYMO FALIC JOSEPH HAM DONALD H	G PV1 JR PV1 PV1 PV1 PV1 PV1 PV1 PV1 ND E PV1 ND E PV1 PV1 PV1 PV1 PV1 PV1	52 52 52 52 52 52 52 52 52 52 52 52 52 5	LCWS LCWS LCWS LCWS LCWS LCWS LCWS LCWS	•	30 957 30 803 450 055 840 055 840 0146 345 0146 345 0146 345 0146 345 0146 0146 0145 015 015 015 015 015 015 015 01	22222222222	552222222222222222222222222222222222222	0 0 0 0 0 0 0 0 0 0 0 0 0	00000000000000000000000000000000000000	09 09 09 09 09 19 09 11 09 09 09 09	

1.5.5. FORM ND, BOSA

NECOL FURM										5HE	er	ነቸ	SHER	ព		
								IKIT	PARENT U	NIT	f c	CURRENT GO	A. OR		STATUS	
SERIAL Number	NAME OF INDIVIDUAL	GRADE	ידטם	SEAVICE 4 8P IN DIVIDUAL	NO.	TYPE	NUMBER	TYPE	U. F.	DAY MO.		ODE D	AY NO.	YR.		
37260935	DOHERTY DONALD J	PVT	521	CWS			303	16	7	521		201	9109	1		
	DUKES ALVIN M	PVT	521	CWS	i			52	7	521			809			
	FARROW IRVIN	PVT		CWS	1	·		12	7	521			108			
37456331	FISHER CLAYTON L	PVT	521	CWS		·	30 3	16	7	521			8 0 9			
	FINE MOSE J	PVT	521	CWS	i		-	73	7	5 21			809			
	FRISBEE EMMETT L	PVT	521	CMS	i		303	16	7	521			809			
	FULTON WAYNE G	PVT	521	CHS	1		3	73	[7]	521			8 0 9	2		
	GALLEGOS JOE C	PVT	521	CWS	·			99	2	521	2	S 0 S		3		
	CBURZYNSKI JOSEPH F	PVT	521	CWS			30 1	12	2	521						
	GIVENS RERCY W	PVT PVT	521	L'MS	i		0	14	77	521		201	909			
36512512		PVT	524	~ws			5	96	7	521			108	2		
	GRONLUND CARL C Green Chester A	PVT	521	CWS			ž	27	7	521	Ň		ε ήδ θ			
	GUSTIN OSCAR	PVT	521	CWS	i		2	01	7	521	2		809			
37260784		PVT	055	CWS	i		0	55	7	521	b	22		3		
38135194	HARRIS ROBERT T	PVT	521	CWS			30 3	17	7	521	2	5 0 S	909	8		
32289334	HERRICK EDWIN	PVT	521	CWS			30 7		2	521	2	203		3		
37456075	HEITMAN PAUL E	PVT	521	CWS			2	44	7	521	2	- 1	-	2		
37456875		PVT PVT	524	CHS			2	01	7	521	200		8i09 8!09			
37352617	HIBBARD THOMAS M 1 Holly Ralph J	PVT	521	CHS	i		•-	27	7	521			809			
37456329		PVT	521	CUS	1			91	7	521		202		· •		
	KELLEM VEREL H	PVT	521	CIVS	i			4 5	7	5121	2	201	9 0 9	a .		
16109011	KIMM CERHARDT W	PVT	521	CWS			4	31	6	5 2 1	0	4	9111	<b>i</b> a .		
36515521	KITLAS FRANK L	PVT	055	CT!S	:			i9 2	7	521	Q	23	1 1 1	3		
36189397	KNAUS JOHN	PVT	521	CIVS				99	7	521	0			3		
36185396		PVT	521	CWS	l			21	2	5,21	0		108	2.		
34333988		PVT	521	CWS			, 1 7	62 73	5	521	8		910	18 1		
37334827	KUXHAUSEN JOHNNY C LAKE LLOYD L JR		410 55	mus			2	5 5	17	5181		22	810 9	0		
36 51 46 54		PVT	521	rws	i	·	3	55	7	521			108	12		
37456336		PVT	521	CWS		·	3	73	. 7	521	à		8:09	•		
39676199		PVT	521	CHS			4	11	3	521		01	109			
37261142		PVT	521	CWS	-		3	7 3	7	521	2	301	909	2		
36512173	LONCAR HICHAEL	PV.T	521	CWS			30 3	91	7	5:21	2			2		
31188091		PVT		CWS			3	73	7	5,21	C	83	108	2		
36185615	SMACKELA AHTI A	PVT		CWS			3	27	7	521		183	108	8		
37352653	MALDONADO FILBERT	PVT		CWS				99		521			8109			
37230342	BMETCALE IVAN R	PVT		CWS				50	?	521	4		9¦09			
37,260,98	MELLEGAARD VERLYN E	PVT		CWS				0.6	7	521			909			
27220240	NILLER JACK L	PVT PVT		CWS				15 5 4 5		5,21			909 809			
2 ( <b>3 3 4 3 2</b> 3 7 7 4 5 0 0 7 2	MOSHER MILAN D	LPVT		CWS				4 3 7 0		521			809			
2145483	MOORE WILBUR I		361	CWS			0		11	1 4 10			0,09	101		

W.3. A.B.O. FORM NO. BORA 700. 30. 1941 0.

**`∩ `** 

PORT FORM			*. 🛄 SP 🔨 **			4											
PORTFORM			The second		et average		6118 UNI	r PA	ENT UNIT		ENL	RENT COL	DATE		674	TUS	· · · ·
SERIAL NUMBER	Υ.	NAME OF INDIVIDU	JALS	GRADE	DUTY	J OF	ND. T	PE NU	IBER TYPE	1010	DA1	MO. )	YR.	CODE	DAY	<u>жо.</u>	YN.
37332702 33269840 36222949 33233866 37260911 36515303 37334358 39178560 39246327 39246327 39246327 39246327 39246327 39246327 39246327 36515395 38172841 35364236 6292324 37220544 3945110 36189261 37260923 36515493 3745630	OSTAPI PARKS PETEL PEDIC POTTEL POTTE POTTE RICHA RILEY ROSS SINDT SMITH STERAS TARAS TARAS TOBEN TURNE TOBEN TURNE TOLLM TVOLL WHEAT TWINCF	OR WILLIA KOWICZ JO LA VERNE ALBERT O LAVERNE OFF EDWAR R WAYNE M RDSON CAL PERRY M THURMAN C VERDEEN CARL N LAWRENCE RT JOHN E MORGAN ER EDWARI R CLARENC ER HUBER CLYDE W LEY SEAC IELD JOS	M J JR SEPH J G H J N JR VIN N H E L JR M F E W T J AL V	LPVVTTTTTTTTTTTT LPVVTTTTTTTTTTTTTTTTTTT	55555555555555555555555555555555555555	<b>NANANANANANANANANANANANANANANANANANANA</b>		3 0 3 0 3 0 3 0 3 0 3 0 3 0	3212121225 3212122529 3212122529 33312529 1225529 12255529 12255529 12255529 1225557 1225557 1225557 1225757 122557 122557 122557 122557 122557 122557 122557 12257 122577 122577 122577 122577 122577 122577 122577 122577 122577 122577 1225777 1225777 1225777 1225777 12257777 12257777 12257777777777	275355LLD99575 9 211857	777777777777777777777777777777777777777	1111111111111111 222222222222222222222		20200000000000000000000000000000000000	9 8 9 3 0		
39526434	This ros the name those at	ster of <u>]</u> sheet as of all person ttached, of the <u>E</u> <u>liem l. ////</u> Authenticating <u>lliam J. Kuttner</u> Name, Grade &	al, includin above organiz <u><i>ttuu</i></u> Officer Pers. 0.	NG													



### **DEPARTMENT OF VETERANS AFFAIRS**

Records Processing Center P. O. Box 5020 St. Louis, MO 63115

February 24, 1994

In Reply Refer To: 376/232

U.S. Army Corps of Engineers CELMS-PM-M Attn: Bob Tenholder 1222 Spruce St. St. Louis, MO 63103-2833

Dear Sir:

Your recent inquiry requesting a name and location search for 98 veterans has been received in this office.

We have forwarded your letters to the last known addresses of the veterans on the attached page one. We can offer no assurance that the veterans will receive or respond to your correspondence.

If the letters are returned from the Post Office as being "UNDELIVERABLE", you would be notified.

We have been unable to identify VA records for the veterans on the attached page two. It is possible that we would be unable to identify records for these veterans if they never applied for Veterans Administration benefits.

VA records for the veterans on the attached page three have been identified and the date of death is given.

Your VA request for LaVerne W. Pedigo, C 7 220 060; should be sent to the Director, at VA Regional Office, P.O. Box 5046, 2510 W. 22nd. St., Sioux Falls, SD 57117. Please be sure to include the VA file number.

We look forward to being of assistance to you in the near future.

Sincerely yours,

ALICE I. HUNTER Chief, Field Servicing Division

VETERANS NAME	FILE NUMBER
STEIN, GEROGE P.	08 233 062
COHEN, OSCAR P.	09 335 975
PANARIELLO, VINCENT A.	14 033 740
WASHKUHN, JACK W.	06 571 034
RUNIONS. WILLIAM S.	10 243 756
RUNIONS, WILLIAM S. CORCORAN, LEONARD R.	09 339 600
WELLS, GORDON	16 047 647
ANDERSON, ALBIN C. BAUERS, EARL C. BERQUIST, ARDON	08 635 773
BAUERS. EARL C.	06 986 291
BERQUIST. ARDON	08 464 193
CARROTHERS, RAYMOND E.	483127503
	12 807 384
CORNELISEN, HOWARD R.	
DOHERTY, DONALD J.	07 700 230
FISHER. CLAYTON L.	04 741 920
FRISBEE. EMMETT L.	07 503 472
DOHERTY, DONALD J. FISHER, CLAYTON L. FRISBEE, EMMETT L. GALLEGOS, JOE C. GBURZYNSKI, JOSEPH F.	11 266 759
GBURZYNSKI. JOSEPH F.	03 542 705
GALLEGOS, JOE C. GBURZYNSKI, JOSEPH F. GLICKER, BENJAMIN C. GREEN, CHESTER A. HANSEN, ELMER W. HEITMAN, PAUL E. KIMM, GERHARDT W. KRELLWITZ, RALPH E.	11 332 176
GREEN, CHESTER A.	07 060 680
HANSEN, ELMER W.	15 888 241
HEITMAN, PAUL E.	06 620 802
KIMM, GERHARDT W.	21 842 242
KRELLWITZ, RALPH E.	06 945 913
KUXHAUSEN, JOHNNY C. LAKE, LLOYD L., JR. LAKCEY, GLENN D. LONCAR, MICHAEL MACKELA, AHTI A. METCALF, IVAN R. MILLER, JACK L. MOSHER. MILAN D.	08 499 394
LAKE, LLOYD L., JR.	10 112 922
LAKCEY, GLENN D.	06 986 780
LONCAR, MICHAEL	06 950 568
MACKELA, AHTI A.	13 639 060
METCALF, IVAN R.	10 626 584
MILLER, JACK L.	07 887 510
MOSHER, MILAN D.	16 826 618
O'CONNOR, WILLIAM J., JR.	07 855 153
POTTER, WAYNE M.	13 300 994
RILEY, PERRY M.	06 668 921
STEWART, JOHN D.	03 333 283
VOLLMER, HUBERT J.	11 353 335
VOLL, CLYDE W.	13 740 969

- 1 -

.

÷

### VETERANS NAME

OBISPO, LUIS CLUTTER, RALPH J. ROBERTS, GERALD D. SMITH, ROY BASSANI, JOE HAMM, ERIC HUNTÓON, WILLIAM J. MURPHY, ALAN P. SAUNDERS, EDWARD B. WULFEKUHLE, LEO G. BARTLETT, JOHN A. FULTON, WAYNE C. HUMPHREY, CLIFFORD S. KITLAS, FRANK L. LARSON, FLOYD R. MARTIN, HAROLD J. SINDT, VERDEEN H. SMITH, LAWRENCE L., JR.

•

.

- 2 -

VETERANS NAME	DATE OF DEATH
HODGES, ROY D.	05-08-70
	09-16-86
	04-11-80
ANDERSON, VERNON C.	12-08-75
	11-11-91
BRAUER, GERHARD M.	09-04-89
BUDKA, JOSEPH A.	06-05-81
	11-07-82
	UNKNOWN
DUKES, ALVIN M.	11-26-77
FARROW, IRVIN	10-08-73
FINE, MOSE J.	12-14-67
	07-30-69
GRONLUND, CARL C.	01-12-73
GUSTIN, OSCAR	11-22-92
HARRIS, ROBERT	UNKNOWN
HERRICK, EDWIN	10-27-76
	06-05-91
	09-24-78
	03-03-68
KELLEM, VEREL H.	06-26-63
KNAUS, JOHN	10-20-84
KUMPE, JAMES E.	UNKNOWN
LANCASTER, JOH H.	11-02-79 07-21-85
LECOCO, PHILIP M.	07-21-85
MALDONADO, FILBERT	11-21-72
	09-22-88
	11-24-91
	07-23-76
PARKS, LAVERNE G.	11-28-86
PETEL, ALBERT	02-02-92
POTTHOFF, EDWARD H., JR.	
•	07-14-81
ROSS, THURMAN G.	02-24-60
SMITH, CARL N.	07-12-72
TARASAR, JOHN	07-01-69
TEAGUE, MORGAN M.	08-27-65 01-29-83
TOBENER, EDWARD F. TURNER, CLARENCE W.	03-09-74
•	05-03-69
WHEATLEY, SEAGAL V. WINGFIELD, JOSEPH A.	10-03-76
WONG, EDWARD	UNKNOWN
TORG, DURALD	0 11 11 11 0 H 11

- 3 -

.

÷



#### DEPARTMENT OF THE ARMY

ST. LOUIS DISTRICT, CORPS OF ENGINEERS 1222 SPRUCE STREET ST. LOUIS, MISSOURI 63103-2833

February 2, 1994

REPLY TO ATTENTION OF:

Project Management Branch

Veteran of the U.S. Army, 40th Chemical Laboratory Company

Dear Sir:

The St. Louis District, U.S. Army Corps of Engineers has been assigned the task of completing Archive Search Reports (ASR's) at Formerly Used Defense Sites (FUDS) where the possibility of Ordnance and Explosive Waste (OEW) exists. One of the sites presently being investigated is Sunnyvale, California where the 40th Chemical Laboratory Company was stationed from 18 February 1943 to 13 October 1943.

As part of its archival research this district found documents which list you as being a member of the 40th Chemical Laboratory Company in November 1942. To assist us in our investigation it is requested that you please answer the following questions:

1. Where was the 40th bivouacked while in Sunnyvale, CA.

2. What was the unit doing in Sunnyvale, CA and if possible describe the building or street where the work was done.

3. Did your work in Sunnyvale, CA involve working with any chemical warfare agents. (mustard, phosgene, lewisite, etc.)

4. To the best of your knowledge was any chemical agents ever disposed of in Sunnyvale, CA. If so please give approximate location.

Please transmit this information to U.S. Army Corps of Engineers, CELMS-PM-M, Attn: Mr. Bob Tenholder, 1222 Spruce Street, St. Louis, Missouri, 63103-2833. If you should have any questions, or wish to respond by telephone instead, Mr. Tenholder can be contacted at 314-331-8786. Your immediate response would be appreciated as this investigation must be completed by 15 March 1994.

Sincerely,

MICHAEL È. DACE Chief, Project Management Branch

U. S. Corps of Engineers,CELMS-PM-M Mr. Bob Tenholder 1222 Spruce Steet St. Louis, Missouri 63103-2833

Dear Sir:

In answer to the letter enclosed I submit the following information.

1. The 40th CML Lab CO was bivouacked while in Sunnyvale,CA, in a government compound on a street within a residential area the name of which I can not recall. This location also housed staff and command vehicles of the II Armoured Corps, headquaters of which was located in San Jose. We were housed in wooden barracks that existed before we moved in.

2. I believe that the 40th CML was located in Sunnyvale to be in close proximity to Stanford University. The 40th had a chemical laboratory at the University where any and all chemical work was dong. We were transported daily to Palo Alto to the lab where I was a chemical technician.

3. Our work while in Sunnvale was a training period to prepare the company for the function of identification and analysis of toxic chemical agents while in the field.

4. To the best of my knowledge no chemical agents were present on site or disposed of in Sunnyvale, CA.

If you desire further specific information, you will have my complete cooperation.

Sincerely,

Second R. Cor colon

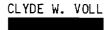
Leonard R. Corcoran

2-14-94 Ref. Diepit of the Comp St. Forme Distant orphog En 122 Sprace It. Et- Louis No. 60103-283 2/2/94 Yo: The Bab Tocholder Project - he angement Bran ( fores letter referenced above has reached my How que time are an follown: #1. The Hoth was billeted in small beauche later denge in or was the caster of Sumaprole, in the middle of an apricat orchood. We serve stationed theme for relieve complete and (repeting to the 2nd Armored Corps) relieve tooling and the and company condeced in a disbaratory and Stanford University, Pale Celto. #3. Sec anno #2 # 4. Mo. An additional terminent: The 40 the had gos mark training in a phoxycon atmosphere, probably at Comp See Finis Obsigo. precise Traly, Lanter have Corres P. Colem - Cington - Miara. 02173

.... Tilzhales + raus

Secr 11. 924.

To troject Management Branch Statlemen . In reply & your letter of 2-2-94 requesting infoon 40th Chemical Lot Co- at Sanny vale. Cal. During au stay at Sunnyvale we were in Damacks, as I recall, referred to as the "city park" (a couple of ather made nulitary unto were there We were there so some of our tech. mical personnel. Could get specialized thing training at Stanford. U. I do not remember of acer las "actually Oling assembled while there - Some of the resh of is were allowed to help in a canning plant in San Jose V Various activities such as & practice far a special surrival cause in acean crossing emergency etc. I do not know of any Chemical warfare agents being used ar dispaced of in Sunnyvale. Gours Truly -GLENN D. LACKEY



Dept. of the Army St.Louis District, Corps of Engineers 1222 Spruce Street St. Louis, Missouri 63103-2833 Atten.: Mr. Bob Tenholder

February 11, 1994

Dear Sir,

Reference your letter of Feb. 2, 1994 Project Management Branch"

1.) The 40th Chemical Lab Company was bivouacked on the edge of Sunnyvale, Ca. in what were old huts probably belonging to the CIC - Civilian Conservation Corp.

2.) The unit was doing basic training and waiting for a Mobile Laboratory that never materialized. I was the company clerk. The rest of the company consisted of PHD's and Masters in Chemistry. They made regular trips to Stanford University to work in the laboratory.

As part of our basic training we all had to march thru tents and be exposed to various gases. We wore protective clothing. Mustard gas, a pinhead drop , was placed on the arm of each soldier to show how effective it is. It left 2 tiny scars on my arm.

I doubt wheather any chemical agents were disposed of in Sunnyvale, since laboratory experiments were carried out in Stanford University.

My knowledge of chemistry was very limited, so I was fortunate to be transferred to the University of Idaho to take part in the Army's specialized training -German Language for 9 months.

Sincerely,

Clyde W. Voll

February 14, 1994 U.S. Army Corps of Engineers CELMS-PM-M Attn: Mr. Bob Tenholden 1222 Spruce St St. Louis, MO. 63/03-2833. Dear Mr. Tenholder, In response to your letter as inquiry dated February 2, 1994. I will, respond to each of your foun questions in order lifte were bivousched in temporary buildings in the City Park, not sen from the cown town area in Sunnyvale, CA 2. Our whit was in training while in Sunnyvale, in preparation Sonour oversess assignment. This involved classroom work, drilling, and

physical conditioning. 3. No. 4. No. IS I can furnish additional information to you, please contact me. Sincone V. George P. Mein the second se 

15 February 1994

Michael E. Dace Chief, Project Management Br. Department of the Army St. Louis District Corps of Engineers 1222 Spruce St. St. Louis , Missouri 63103-2833

Dear Sir:

This letter is in respnse to your inquiry about the 40th Chemical Iaboratory in Sunnyvale, CA in 1943.

The 40th was billeted in one-story, temporary, frame buildings in a small encampment at the corner of Pastoria and Evelyn Streets in Sunnyvale, CA. A number of two-day overnight bivouacks were made to area rural parks. No chemical agents were involved.

The unit was in Sunnyvale for billeting and unit administrative purposes and its proximety to Stanford University in Palo Alto. No chemical agents were present at Sunnyvale and no disposal.

Technical personnel trained in the chemistry building at Stanford. My work at Stanford involved library research on toxicology subjects.

During this period, the technical personnel also trained at Edgewood Arsenal, MD for a one-month period.

Sincerely, Josh M. Maskkah

Jack W. Washkuhn

February 21, 1994

U.S. Army Corps of Engineers, CEIMS-PM-M Attention: Mr. Bob Tenholder 1222 Spruce Street St. Louis, Mo. 63103-2833

Dear Sir:

1. We were housed in temporary barracks in the city park in the west part of Sunnyvale. These barracks were orginally built as an internment center for Japanese Americans which were rounded up as high risks during World War II. In time, they were moved to inland camps which made these barracks available to the army.

2. We were a technical unit which was a part of Chemical Warfare Service. Our duty was to tap enemy chemical shells and report what agents were used. Our chemical department used the laboratory facilities at Stanford University, Palo Alto, to do all their training and research work. Sunnyvale is very close to Palo Alto and the chemists were trucked over to Stanford University each working day.

3. If my memory serves me correctly, all the research on chemical agents mentioned was done at the Stanford University laboratories. We did have a shell tapping unit but to my knowledge, they didn't tap any shells in Sunnyvale.

4. As stated above, no shells were tapped in Sunnyvale so there were no agents to dispose of.

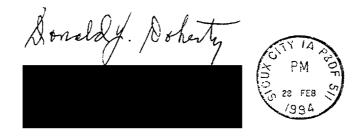
I was in administration with the hOth but was very aware of company functions. Since we were a very close unit, I still exchange Christmas greetings with a number of the chemists. In the event you want further information, Iam listing below the addresses of three of the top chemists who could answer any information which I am unaware of or overlooked. Oscar P. Cohen was the chief of the chemical department - - - he was a Harvard graduate with a PHD in organic chemistry.

	Oscar P. Cohen
	Chester Green
Sincerely,	• N
ardon R. Ber	amot
Ardon R. Berauis	

George P. Stein

Alo 28-94 Michael C. Doce Chief, Progest Management Branch. I was with Hoth Chemical Sof Co at Sumyvale, Calif. ). How was in a small conp. 2. They were Barrashs, & think we were Part off Costel Defence. 3. I don't & mor off any Chemical Wanfore no chemical agents wer disposed of im Sumy vale, Co.

Sincirely Donald J. Dokutz Former member of HOTh Chem Saf. Co. Sunnyode, Ca.



Feb. 28, 1994

L.S. Corps & Engineers CELMS-PM-M 1222 Aprile ST. It found , MO 63/03 ATTN: MR Bob Tenholder

Dear des i your letter of Leb, 2 was received, in response To the questions posid, with some mat diminished recollection after 50 years I offer the following response. I was a member of the 40 the Chemical Exportion Configure, during the months of Feb through Dat. 1943. The Confany when firmacked in a nother small post ma city pare not par from down town Sunnyvell, CF. It was a ten pora in station prior to our inneres a sugarant. We Canied out have army Training and preparation for ore side prover mill, while that and Annyvall, CA. Our speciality Training van doni at mearly starford University bala alto. at no time did we store, handle or train with chemical Warfare agents y any kind nor did we dispose n'any chemical warfare agent while in duringwale, CA. Republic the Union Respectfully yours, HAR APT. I COMPARE ILS

Tenholden



DEPARTMENT OF THE ARMY

ST. LOUIS DISTRICT, CORPS OF ENGINEERS 1222 SPRUCE STREET ST. LOUIS, MISSOURI 63103-2833

February 2, 1994

REPLY TO ATTENTION OF:

Project Management Branch

Veteran of the U.S. Army, 40th Chemical Laboratory Company

Dear Sir:

The St. Louis District, U.S. Army Corps of Engineers has been assigned the task of completing Archive Search Reports (ASR's) at Formerly Used Defense Sites (FUDS) where the possibility of Ordnance and Explosive Waste (OEW) exists. One of the sites presently being investigated is Sunnyvale, California where the 40th Chemical Laboratory Company was stationed from 18 February 1943 to 13 October 1943.

As part of its archival research this district found documents which list you as being a member of the 40th Chemical Laboratory Company in November 1942. To assist us in our investigation it is requested that you please answer the following questions:

Where was the 40th bivouacked while in Sunnyvale, CA. 1.

In San Luis Obispio, CAmp in California 2. What was the unit doing in Sunnyvale, CA and if possible describe the building or street where the work was done. Basic training on how to protect ourselves from chemical wourface.

Did your work in Sunnyvale, CA involve working with any 3. chemical warfare agents. (mustard, phosgene, lewisite, etc.)

To my Knowldy, No. 4. To the best of your knowledge was any chemical agents ever disposed of in Sunnyvale, CA. If so please give approximate location. Not to my knowldge

Please transmit this information to U.S. Army Corps of Engineers, CELMS-PM-M, Attn: Mr. Bob Tenholder, 1222 Spruce Street, St. Louis, Missouri, 63103-2833. If you should have any questions, or wish to respond by telephone instead, Mr. Tenholder can be contacted at 314-331-8786. Your immediate response would be appreciated as this investigation must be completed by 15 March 1994.

Sincerely,

MICHAEL E. DACE Chief, Project Management Branch

DEPARTMENT OF THE ARMY



ST. LOUIS DISTRICT, CORPS OF ENGINEERS 1222 SPRUCE STREET ST. LOUIS, MISSOURI 63103-2833

February 2, 1994

REPLY TO ATTENTION OF:

Project Management Branch

Veteran of the U.S. Army, 40th Chemical Laboratory Company

Dear Sir:

The St. Louis District, U.S. Army Corps of Engineers has been assigned the task of completing Archive Search Reports (ASR's) at Formerly Used Defense Sites (FUDS) where the possibility of Ordnance and Explosive Waste (OEW) exists. One of the sites presently being investigated is Sunnyvale, California where the 40th Chemical Laboratory Company was stationed from 18 February 1943 to 13 October 1943.

As part of its archival research this district found documents which list you as being a member of the 40th Chemical Laboratory Company in November 1942. To assist us in our investigation it is requested that you please answer the following questions:

 Where was the 40th bivouacked while in Sunnyvale, CA. C, ty PARK

2. What was the unit doing in Sunnyvale, CA and if possible describe the building or street where the work was done.

3. Did your work in Sunnyvale, CA involve working with any chemical warfare agents. (mustard, phosgene, lewisite, etc.)

4. To the best of your knowledge was any chemical agents ever disposed of in Sunnyvale, CA. If so please give approximate location. Not for My knowledge

Please transmit this information to U.S. Army Corps of Engineers, CELMS-PM-M, Attn: Mr. Bob Tenholder, 1222 Spruce Street, St. Louis, Missouri, 63103-2833. If you should have any questions, or wish to respond by telephone instead, Mr. Tenholder can be contacted at 314-331-8786. Your immediate response would be appreciated as this investigation must be completed by 15 March 1994.

Sincerely,

MICHAEL E. DACE Chief, Project Management Branch

FROM RAYMOND CARRothERS 4833127503

Michael Loncar

U.S. ARMY CORPS OF ENGINEERS CELMS-PM-M: ATTN. Mr. Bob Tenholder 1222 Spruce St. St. Louis, MC. 63103-2833

Dear Sir:

The 40th Chemical Lab Co. left San-Luis Obispo, CA after completing our basic training with the 7th INF.DIV. Proceeded to Sunnyvale CA. which was a <u>small</u> military installation of a temporary nature: Our company manpower consisted of 100 EM. and 10 officers, and the area of installation was about 5 acres.

During our stay at Sunnyvale, the majority of personnel including officers and NCO's trained in a lab furnished by Stanford University in Palo Alto, CA. We also sent a 15 man contingent of officers and NCO's to Edgewood, Arsenal, MD for advanced training. We also continued our military training.

Questions :

- The only thing I remember about the location is that it was in a rural area and surrounded by apricot orchards.
- 2. The installation furnished housing, mess hall, supply Bldg. and a day room which doubled as a class room. During the weekdays, we utilized the facilities at Stanford and there was no CWS activities at Sunnyvale.
- 3. There were no chemical agents stored at the Sunnyvale, CA location as far as I know.
- 4. To the best of my knowledge, no chemical agents were ever disposed of in Sunnyvale. We never actually received our lab until we went over to the E.T.O. The lab was of a portable nature and geared to micro-analysis and there was never any need to have large quantities of material on hand.

Yours Truly, Michael Longar Machael Jonour



**DEPARTMENT OF VETERANS AFFAIRS** Records Processing Center P.O. Box 5020 St. Louis, MO 63115

07 MAR 1994

time loss of ingineers ATTA! michael x Call 1222 Aprice Al At. Jans, Molisio3

In Reply Refer To:

376/232

67060280

TENHOLDER

Dear Sir:

Mail that had been forwarded to Chester R. Encin

has been returned by the Post Office as "UNDELIVERABLE". We look forward to being of assistance to you in the near future.

ALICE I. HUNTER Chief, Field Servicing Division

TENHOLDER



**DEPARTMENT OF VETERANS AFFAIRS** Records Processing Center P.O. Box 5020 St. Louis, MO 63115

, \$4 MAR HEAL

Arris: Michael Dave 1223 Sprue St. St. Jour, Mo. 63103

In Reply Refer To: 1.8635773 376/232

Dear Sir:

Mail that had been forwarded to Alhin C. Anderson

has been returned by the Post Office as "UNDELIVERABLE". We look forward to being of assistance to you in the near future.

Sincerely yours,

aprend. Sunter

ALICE I. HUNTER Chief, Field Servicing Division



Records Processing Center P.O. Box 5020 St. Louis, MO 63115

4 MARCH 1994

In Reply Refer To:

376/232

·4.5. ARMY CORPS OF ENGINEERS CELMS-PM-M ATTN: MR. BOB TENHOLDER 1222 SPRUCE ST ST. LOUIS, MO. 63103-2833

C 354 2705

Dear Sir:

Mail that had been forwarded to GBURZYNSKI, JOSEPH F has been returned by the Post Office as "UNDELIVERABLE".

We look forward to being of assistance to you in the near future.

ALICE I. HUNTER Chief, Field Servicing Division

Tercholden



Records Processing Center P.O. Box 5020 St. Louis, MO 63115

ARMY CORP. ENGINEERS NICHAEL DANCE 18222 Spruce St. ST. LOUIS MO. 63103

In Reply Refer To: 376/2322 - 28 - 94 $C \neq 12 389 456$ 

Dear Sir:

Mail that had been forwarded to Howard R. Cornelisen

has been returned by the Post Office as "UNDELIVERABLE".

We look forward to being of assistance to you in the near future.

2 Hunter

ALICE I. HUNTER Chief, Field Servicing Division



Records Processing Center P.O. Box 5020 St. Louis, MO 63115

Bolo Senholder 1222 Spruce St St. honis Mo 63103-2833

In Reply Refer To: C#7563472

376/232

Dear Sir:

Mail that had been forwarded to FRISDEE, Emmetted

has been returned by the Post Office as "UNDELIVERABLE".

We look forward to being of assistance to you in the near future.

alice Hunter

ALICE I. HUNTER Chief, Field Servicing Division



Records Processing Center P.O. Box 5020 St. Louis, MO 63115

In Reply Refer To:

376/232

US ARMUL CURPS of ENGINEERS CELMS-PM-MIROBTEN Holder 1222 SPRUCE St. Stibuis, Morezio3-2833

2#6945913

Dear Sir:

RALPH E. KREllwitz

Mail that had been forwarded to

has been returned by the Post Office as "UNDELIVERABLE". We look forward to being of assistance to you in the near future.

Sincerely alice of Henter

ALICE I. HUNTER Chief, Field Servicing Division

#### **APPENDIX C-4**

Archive Record Search Log, National Personnel Record Center, St. Louis, MO, National Archives, Pacific Sierra Region, San Bruno, CA, Federal Records Center, San Bruno, CA, National Archives Record Administration, Military Reference Branch, Washington, DC, National Archives Record Administration, Suitland, MD, and National Archives Downtown Facility, Washington, DC

Subject Site	RG	Вох	Entry #	Folder #	Descrip	Init
TRANSFER COMMAND INSTALLATION FILES	338	1	65-8-4013		PROJECT FILES	CAC
TRANSFER COMMAND MASON	338	1	62-C-6164		PASSENGER MOUEMENT FILES	CAC
FORT MASON	338	/	65-C-4056		OVERSERS SURPLY DIVISION	CAC
SFPE	338	2#2	56- F <b>- 3</b> 045		OUT GOING CARGO LISTS	CAC
SFPE	338	2 = 4	56-C-3045		ORGANIZATION FILES	CAC
SFBE	338	/	64-8-6136		PORT OPERATIONAL FILES	CAO
DAKLAND AB	338	1	65-8-4056		ONG. PLNG FILE	CAC
SFPE	338	10+2	56-F-3045		CARGO INVOICES	CAR
SFPE	338	1 of 4	56-0-3045		SUB INSTALLATION ORG. PLNG.	CAC
SFPE	338	2002	76-0-699		SUB INSTALLATION ORG. PLNC	CAC
SFRE	338	142	64-0-6136		TRANS TERM COMMAND	CAC
SFRE	338	1	58-0-3040		MOVEMENT DATA	CAC
SEPE	338	1	56-E-3045		HESTOREAL SUMMARIES	CAC
SFRE	338	/	56-3-3045	-	TRANSPORTATION CORPS FILES	CAC
SF ORDNANCE DISTRICT	338	1	56-8-3126		SPECIAL ORDERS	CAC
SF- ODISTRICT	338	1	56-A-312	5	SPECIAL ORDERS	
SFPE	338	1	76-0-69	9		

ST. Louis, MO

All the second second

Subject Site	RG	Box	Entry #	Folder #	Descrip	Init
Fr. Mason	338	2	76F 699		TransportAtion Records FOR SFPE (1950's)	PLB
FT. MASON	338	!	5883040		CP STONEMAN inact. copied	DLB
FT. Mason	338	3	68A6136		STAFFING Requirements 4 PATTERNS	D2B
FT. MASON	338	1	5853040		Organizational planning	DZB
FT. Mason	338	3	56 (3045		planning	P2B
Fr. Mason	338	ų	566 3045		Org. planning	02B
FT. MASON	338	2	56A 3045		TDY ORDERS	DZB
FT. MASON	338	l	36A 3045		Hist. OF Transportatio W CORPS	DLB
FT. MASON	338	١	56A 5000		Special or DERS promotion orders	DZB
FT. MASON	338	1	76B 669		Minutes F Graff Conferences	P26
FT. MASON	338	ι	5665020		org. planning	D2B
FT. MASON	338	١	76669		Budger, Fiscal in ro on SFPE	D2B
FT. MASON	338	/	76-F-699			
•						

#### SFPE => SAN FRANCISCO Port of EMBARKATION

-12

#### ARCHIVE LOCATION: NATIONAL ARCHIVES -PACIFIC STERRA REGION SAN BRUND, CA

DATE: // JANUARY 1994

RG	Вох	Entry #	Folder #	Descrip	Init
121	4	3215 <i>E</i>	D-Calif- 508 A	LEAL PROPERTY APPRAISAL FILES	CAC
121	5	3215E	D-CALIF- 508 A	APPRAISAL FILES	LAL
175	/	9N5		S.F. PROCUREMENT DIST-CHEM. WARFALL SERVICE	LAL
121	36	85-001	CAL-18	LEMOORE ARMY AIRFIELS	LAC'
270	69	3274-E	CAL-18	LEMOOLE ARMY AIRFIELS	CAC.
270	70	3274-E	CAL-18	LEMOORE ARMY AIEFIELD	LAC
270	7/	3274-E	CAL-18	LEMOORE PRMIJ AIRFIELD	CAP.
270	73	32 74-E	CAL-18	LEMOORE ARMY AIR=IELD	CAR
270	74	3274-6	CAL-18	LEMOORE ARMY AIRFIELD	ØC
				· · · · · · · · · · · · · · · · · · ·	
		~	`		
	121 121 175 121 270 270 270	121       4         121       5         175       1         121       36         270       69         270       70         270       70         270       73	#         121       4       3215E         121       5       3215E         175       1       9NS         175       1       9NS         121       36       85-001         270       69       3274-E         270       70       3274-E         270       71       3274-E         270       73       3274-E	#       #         121       4       3215E       D-CALIF- 508 A         121       5       3215E       D-CALIF- 508 A         121       5       3215E       D-CALIF- 508 A         175       1       9NS       1         175       1       9NS       1         121       36       85-001       CAL-18         270       69       3274-E       CAL-18         270       70       3274-E       CAL-18         270       71       3274-E       CAL-18         270       73       3274-E       CAL-18	## $121$ $44$ $3215E$ $1-CaliF 12AI$ $126AL$ $120PERTY$ $121$ $5$ $3215E$ $0-CaliF REAL$ $PROPERTY$ $121$ $5$ $3215E$ $0-CaliF REAL$ $PROPERTY$ $121$ $5$ $3215E$ $0-CaliF REAL$ $PROPERTY$ $175$ $1$ $9NS$ $508A$ $APPRAISAL$ $FILES$ $175$ $1$ $9NS$ $SF.$ $PROCUBENENT17519NSSF.PRocubenent17519NSCal-18Lemoore1213695-001Cal-18Lemoore270693274-ECal-18Lemoore270703274-ECal-18Lemoore270713274-ECal-18Lemoore270733274-ECal-18Lemoore270733274-ECal-18Lemoore270733274-ECal-18Lemoore270743274-ECal-18Lemoore270743274-ECal-18Lemoore270743274-ECal-18Lemoore270743274-ECal-18Lemoore$

.

#### ARCHIVE LOCATION: NARA DATE: 94 0111 Pacific Sierra Regional Aechives SAN BRUND, CA

Subject 	RG	Box	Entry #	Folder #	Descrip	Init
					INSTRUATION MAPS	
F. MASON SUMMUNE	77	<u> </u>	1513-01		Civil works projects	Dab
					property Mamer. or	
Fr. McDowell	270	7	3274 A		FT. Mcoowell	DZB
					Disposal of Real Prop.	
HANFORD	270	72			At Lemoore AAF in HAUFORD, CA	D2B
			LDC: 3274E		MAPS OF Millowell	
F. M'Dowell	270	77	CAL-191			D2B
					MAPS or MCDo-ell	
F. M. Dowell	270	75	CAL-191			DZB
					photos of McDowell	
FT. M'Dowell	270	76	3274E			DZB
					Indian AUX AF	
HANFORD	270	73	3274E		SURPLUS DATA LEMOORE AAF	
						[]
	1			<u> </u>	1	<u>├</u>
				1		
	· · · · ·			┼───		
<u> </u>	<u></u>	L				

#### ARCHIVE LOCATION: NATIONAL ARCHIVES - DATE: 12 JANUARY 1994 PACIFIC-SIERRA REGION SAN BRUNO, CA

Subject Site	RG .	Box	Entry #	Folder #	Descrip	Init
CAMP STONEMAN	291	1	32201		APPLICATIONS FOR PURCHASE	ac
CAMP STONEMAN	121	3	90-005		LEASE AGREEMENTS	CAC
CAMP STONEMAN	1a1	Ч	90-∞5		LEASE AGREEMENTS	LAL
CAMP STONEMAN	121	5	90-005		LERSE AGREEMENTS, BIDS	CAC
CAMP STONEMAN	121	1	3218J		DISPOSAL RECORDS	CAC
S.F. POINT OF EMB.	336	UNLABELEO	3275E-G		STONEMAN, MAQIN, MC DOWELL, EMERYUILLE CWS-ACTIVITIES	CAC
S.F. PORT OF EMBREKATION	336	UULABELED	3275 E-G		STOMEMAN, MASON EXPLOSAUES	LAL .
SF PORT OF Embarkation	336	UNLABELED	3275 <i>E-</i> 6		PRESIDIO NONTHLY REPORTS	CAC
S.F. PORT OF EMBARKATION	336	UNLABELED	3275EG		OUERSERS SHIPPING RECORDS	CAR
SF. PORT OF EMBARKATION	3:36	UNLABELED	3275 E-6		CARGO LIFT REPORTS SHIPPING MANIFESTS	CAL
SF. PORT OF EMBARICATEUR	336	UNLABELED	3275 E-6		OAKLONG ARMY BASE/ SNEPPING MONIFESTS	TAC
S.F. PORT OF EMBARYATION	338	2	897576		GENERAL ORDERS	LAC
S.F. PORT OF EMBARKATION	338	1	897576		FORT MASON ORG. PLNG FILES	LAC
5.F. POET OF EMBARKATION	336	UNLABELED	3275 E-6	,	ADMINISTRATIVE MEMOS	LAC
SF PORT OF EMBARKATION	336	P51218	8 13 566		SIGTOF COMMUNICATIONS	0.40

#### ARCHIVE LOCATION: PALIFIC Sierra Ry ARC DATE: 94 01 12 SAN BRUNO, CA

-

a Marina da Marina da

Subject Site	RG	Box	Entry #	Folder #	Descrip	Init
Sunnyuale / ALL	77	160	<i><b>२</b>।586</i>		Admin Files Civil WORKS	DZB
HALLFORD ALL	77	79A	a158 B		Photos showing projectile testing in SF AREA	DZB
CAMPSTONEMAN LALL	77	79	21588		DAKLAND HARBOR + picr - photos	D2B
FT. M Dowell	269	6	3264J		Lease Agreement up coast Guard For Angel Island	O2B
FT. MASON / ALL	336		327 <i>5F</i> -6		STONEMAN TIME FACILITIES SF Gen Deport - CWS on how	DZB
Emerguille / ALL	336		3275E-6		HISY Report SFPE Camp Stoneman Stats.	02B
CAMP GrONEMAN	336		3275E-6		Anti-Aircritt at CAMP Stoneman	Paß
FT. MASON	336		3275E-6		Bldgs on FT. MASON bas Mask Ting AT FT MASON	pis
Emeryville / ALL	336e		3275E-G		Ølen storage at Energode	p2.B
F. M'Dowell	33Le		3275E-6		PIELS AT F. MASON	DJB
CAMP Stone man	336		3275E-6		CAMP STOREMAN plans for Hring DAY PARADE	D23
FT. MASON	336	P51a17	37275E-6		Records of conferences	D2B
FT. MASON	392	1	324A		HARBOR DEFENSE FILS 1902-08	D2B
	392	1	324B		HARBOR OFFENSE Files	CAC
FT. MASON FT. MASON	392	1-3	NM-88 324		HARBOR DEFENSE FILES	LAU

#### ARCHIVE LOCATION: FEDERAL RECORDS CENTER DATE: 13 JANUARY 1994 SAN BRUND, CA

Subject Site	RG	Box	Entry #	Folder #	Descrip	Init
ALL	77	1	75 <i>U-1</i> 041		FIELD ŠURVEY ВООКS	41
ALL	77	J	75 U-1061		FIELS SURVEY BOOKS	LAC
ALL	77	3	7511-1061		FIELD SURVEY BOOKS	M
ALL	77	133	77-76 A 1483		REALTY HESTORY	LAC
ALL	77	129	76 A 1483		REALTY HISTORY	LAL
ALL	77	130	76 A 1483		REALTY HISTORY	LAC
ALL	77	127	76 A 1483		REALTY HISTORY	LAL
Emeryville	77	140	76 A 1483		REALTY HISTORY	LAL
ALL	77	137	76 A 1483		LEALTY HISTORY	LC
ALL	77	136	76 A 1483		REALTY HESTORY	LAL
ALL	77	134	76 A 1483		REALTY HISTORY	1.
ALL	77	148	76 A 1483		REALTY HISTORY	LAL
ALL .	77	144	764 1483		REALTY HISTORY	LAC
ALL	77	141	76 A 1483		REALTY HISTORY	LN
ALL	77	139	76 A 148	3	REALTY HESTORY	1AL

ARCHIVE LOCATION: FEOGRAL RECORDS CENTER DATE: 13 JANUARY 1994 JAN BRUND, CA

Subject Site	RG	Box	Entry #	Folder #	Descrip	Init
AU	121	77 A K 000 3	¥14		LEAL PROPERTY DISPOSAL FILLS	CAL
ALL	121	ZA	77-A-0003		LEAL PROPERTY DISPOSAL FILES REALTY DISPOSAL FILES REAL PROPERTY DISPOSAL FILES	2AC
ALL	121	15	77-A- 0003		REAL PROPERTY DISPOSAL FILES	LAL
					·	
						_

# ARCHIVE LOCATION: FEDERAL Records Center SAN BRUND, CA

DATE: 13 JAN 94

Subject Site	RG	Box	Entry #	Folder #	Descrip	Init
Fr. MASON	77		67A1079		Diarics handwritten	Bra
			GINOIT		Info on military	1020
Fr. M'Dowell	121.	24	74B1336		bases at in Neuada	D2B
Emeryville	122	25	74B1336		Reserve Centers	02B_
Sunnyvale	127	26	7481336		Fr. Miley Logist brand Stufions	P2B
CAMP STONEMAN!			110111		Bldg Records - CAMP STOLE	
HanFORD	77	1	77-0008		Man	DZB
FT. MASON	77		69-1323		HARBOR Projects	50 B
	· · · ·		611005		Dredging projects	D2B
FT. N'Dowell	121	1	77A 0005		ARMY BASE	DaB
					MARCH AFB	
Sunnyvale	121	2	77A0005	1		D2B
					LA Air Reserve	
Camp Storingan	121	3	77A0005	1	Trag Center	D2B
					FT. MASON	
Fr. Mason	121	8	77A0003		Alcatrez Island	020
					CAMP Elliott	
Fr. M'Dowell	121	10	7740003			Dab
FT. Mason	121	11	77A0003		CAMP Elliott	02B
						1
					· · · · · · · · · · · · · · · · · · ·	
		1	1			1

★

# ARCHIVE LOCATION: FEDERAL RECORDS CENTER SAN BRUND, CA

١

DATE: 14 JANUARY 1994

Subject Site	RG	Box	Entry #	Folder #	Descrip	Init
EMERYVICE	121	3A	77-A- 0003			CAL
S.F. POE	121	4A	77-A- 0003		REAL PROPERTY DISPOSAL FILES	LAL.
SFPOE	121	16	77-A- 0003		REAL PROPERTY DISPOSAL FILES	LAL
SF POE	121	5A	77-A- 0003		REAL PROPERTY DISPOSAL FILES	<u>IN</u>
SF P.QE	77	147	76-A- 1483		LEALTY HISTORY	LAL
S.F. PDE .	121	17	77- 0003		REALTY HISTORY	LAC
SF POE	121	IA	77-A- 0003		REALTY HISTORY	LAL
SF POF	121	1	77-		REALTY HISTORY	LAL
SF POF	121	2	77-		REALTY HISTORY	CAC
SF POE	121	3	77- 0003		REALTY HISTORY	L
SF Are	121	4	77- 0093		REAL PROPERTY DISPUSIL	CAC
		•				
•						•

### ARCHIVE LOCATION: Federal Records Center DATE: 14 JAN 94 San Bruno, CA

Subject Site	RG	Box	Entry #	Folder #	Descrip	Init
Fr. Meson/ALL	121	12	77 A6003		CAMP Elliott	DZB
FT. Mason/ALL FT. Mason/ALL	121	13	77A0003		CAMP Elliott	ØZB
ALL	121	5	77A0003		CAMP Roberts Michellan AFB. Sacre	DZB
ALL	121	6	7770003		SANTABARBARA Light Reservation	
ALL	121	7	77 A0103		MUSICIK CREEK Guard STATION	DZB
		1				
		1				
· ·				1		
			-			

#### ARCHIVE LOCATION: NARA, WASH D.C. DATE: 26 JAN 94 MILITARY REFERENCE BRANCH

Subject Site	RG	Box	Entry #	Folder #	Descrip	Init
HANFORD	18	1512	1623	800	Lembore AAF	AZB
HANFURD	18	1528	16W3	633	Lemoore AAF	Ð2B
HANFORD	18	15/3	1663	600	Le moore AAF	ĎZB
HANFORD	/53	80	04	Lemoone ARF	LEMBORE ARMY RER-FIELD	CAC
HANFURO	18	890	12W 3		LEMOORE AAF	D2B
SF PDE	407	4522	AG 1940-45	537.5	TRAFFIC ALLIDENT REPORTS	DZB
SF POE	407	4523	A6 1940-45		TRAFFIC ADEIDENT REPORTS	ac
CAMO STOLEMAN	407	4475	AG 1940-45		ARMY-AG PROSECT DECIMAL FILE	CAR
CAL DIST.	407	4533	A6 1940-45		MISC. CORRESPONDENCE LEASE AREANCEMENTS	
SFPOE	407	4351	AG 1940-45	121.62/	SP PUE. Transfer of CWM to Utah Depet	PZB
F. M'Dowell	407	4452	A6 1940-45	8251	FT. M'Dowell MIGL INFO	D2B-

DATE: 27 JAN 94

•

SUITLAND, MO

Subject Site	RG	Box	Entry #	Folder #	Descrip	Init
(HANFORD) S.F. PROCUREMENT	338	570710			411 CHEM. Co. UNTT HIST	CAC
SF. CHEMICAL PROCUREMENT DIST.	338	21			SITKA ISLAND & FORT MCDOWELL	CAC
SF CHEMICAL PROCUREMENT DIST	338	11005/105			,	CAC
5.F CHEMIDAL PROCUREMENT DIST	338	570729				CAC
CIMP STONEMAN	77	256	393	CAMP STONY POINT RIFLE RANGE	MAP & BUILDINGS LIST	CAC
FORT MASON	77	135	393		BUILDING DESCRIPT. & PHOTOGRAPHS	CAC
FORT MASON	77	299	51 A 277		GENERAL CORRES.	CAC
S. DIST. ENGLAGE	77	300	51 A 277		GENERAL CORRES.	CAC
CRMP STONEMUL	407	18535	427		15th CHEMICAL MAINTENACE CO. UNIT NISTORY	CAC
ALL	77	301	51 A 277		GENERAL COERES	CR
HANFORD WAREHOUSE	407	18 559			501 ST CHEMICAL STORAGE MOMPRY UNIT HISTORY	CAC
ALL	77	302	51A277		Gen. Gorns.	023
•						

#### DATE: 27 JAN 94

SUTTLAND, MD

Subject 	RG	Вох	Entry #	Folder #	Descrip	Init
Fr. MASON	77	197	391		Pier recon. Fr. MASON Repairs TO Piers	P2B
14. 11ASUIU					construction of barmacky	
FT. MASON	77	198	391		Storehouses - FT. MASON	DZB
Fr. McDowell	77	188	391		repairs to Bldgs, roads (1938) - Fr. M. powel(	DZB
FT. M'Dowell	77	189	391		Bldg Improvements AT FT. MoDowell	Æß
		,			Index callos For	
ALL	77	A-L (1)	391		Const. Comp. Reports	DLB
ALL	77	M-2 (2)	391		Index CARDS FOR CCR	<b>D</b> 2B
Emeryville	77	65	393		Eglun Field Camp Ellis	ДәД
Fr. M'Dowell	77	142	393		Bldgs on Fr. McDowell	UZB
Fr. M'Dowell	77	143	393		Records of bldgs. Barracks, etc	023
Fr. M'Davell	77	144	393		Blags at FT. McDowll + FT. McIntosti	D28-
Sunnyuale	407	18538	427		Gen. Orders for yoth chem LAB co NO locations	02B
Sunnyvale	407	18538	427		no locations	07B
ALL	77		SIA277		COE projects in 5.F. BAY area	DZB
ALL	77	303	51A277		Reg. Orders & MISC. correspondence	D2B
ALL	77	301	51A277	7	gen, corres. COE	D2B

SUITLAND, MO

Subject Site	RG	Вох	Entry #	Folder #	_	Init
FT. MDowell	338	2	7/15/3/4		HISTORY OF HOSPITAL AT Fr. M. Dowell	DLA
FT. M'Dowell	338	/	7/15/3/4		BKqd Hist Rifle Range Gas Masik Essue	DL 3
Sunnyuale	407	65	7/31/12/5		Station Lists	D2B
Sunnyuale	407	66	Halists		40th Calles at Sunnyme. No add. INPO.	DLB
Sunnyvale	407	80	Staliors		Stations Lists	PLR
Sunnyuale	407	82	STALISTS		STATION LISTS	DLB
Sunnyuale	407	83	STALLSTS		STATION LISTS	DLB
ALL	338	23	9th Scruce Cmd.		Gen. Corres.	DLB
ALL	338	26	qth Service Lind		Gen. Corres.	PLB
Sunnyvale	112	974	31		Location of Lota in Sonaquale	ىيە
·					· · · · · · · · · · · · · · · · · · ·	

#### ARCHIVE LOCATION: NATIONAL ARCHIVES SUITLAND BRANCH SUITLAND, MD

Subject

SUNNYUALE

Site

Entry # Descrip Init Folder RG Box # 40TH CHEM. LAB. COMPRANY STATION 407 81 12575 1918-1942 INDEY #2 256 175 ANFORSWARDER BRIES 482 #2 175 Nor I ISTED

SUNNYUALE	175	483	#2	Nor LISTED	CAC
CAMP STONEMAN	175	66	#2	INDEX BRIEFS	CAC
EMERYVILLE	175	176	#2	NOT LISTED	CAC
MASON & MCDUKEL	175	242	#~~	INDEX BRIEFS	CIC,
ALL	<i>j</i> 75	589	3	CHEM WARGARS SERVERE 1918-1940	CAC
ALC	175	591	3	CWS PROWMENT DIST.	CAC
ALL	175	592	3	CWS PROCUREMENT DIST.	CAC
ALL	175	588	3	CWS GTH CORP ALL AREA	CIC
ALL	175	590	3	CWS PROCULEMENT DIST	DZB
HANFORD	175	39	1	CWS COLLESPONDANCE	CM
•					

DATE: 28 JANUARY 1994

REPRODUCED AT THE NATIONAL ARCHIVES

ARCHIVE LOCATION: NARA SUITLANG MD

DATE: 29 JAN 94

e di se di seta seta s

Subject Site	RG	Box	Entry #	Folder #	Descrip	Init
FT Mason	156	/	44		Ordnamic reports No copies	DLB
Fr M'Dowell	156	2	44		Gen corres	ULB
Emeryville	156	3	44		Gen corres	DLB
Sunnyuale	407	3226	427		G-4 Files II CORPS	DLB
Sunnyuale	407	3223	427		64 Elies E CORS	PLB
Sunnyvale	467	3166	427		I CORPS Files	DIB
Sunnyvale	407	3285	427		II CORPS Draters	DLB
. Sunnyvale	407	3224	427		II CORPS Files	DLB
Sunnyvalc	407	3222	427		I CORB Fiks	DLB
Sunnyvale	407	3234	427		I Corps orders	DLB
tin in the second						
	Site FT Mason FT Mason FT Mason FT Mason Emeryville Sunnyvale Sunnyvale Sunnyvale Sunnyvale Sunnyvale Sunnyvale Sunnyvale	Site Fr Mason 156 Fr MDowell 156 Emeryville 156 Sunnyvale 407 Sunnyvale 407 Sunnyvale 407 Sunnyvale 407 Sunnyvale 407 Sunnyvale 407 Sunnyvale 407 Sunnyvale 407	Site         Fr Mason       156       1         Fr MDowell       156       2         Emeryville       156       2         Emeryville       156       3         Sunnyvale       407       3223         Sunnyvale       407       3223         Sunnyvale       407       3166         Sunnyvale       407       3285         Sunnyvale       407       3224         Sunnyvale       407       3225         Sunnyvale       407       3225         Sunnyvale       407       3224         Sunnyvale       407       3224         Sunnyvale       407       3224         Sunnyvale       407       3224         Sunnyvale       407       3234	Site#Fr Mason156144Fr M'Dowell156244Emeryville156344Sunnyvale4073126427Sunnyvale4073223427Sunnyvale4073166427Sunnyvale4073285427Sunnyvale4073285427Sunnyvale4073224427Sunnyvale4073224427Sunnyvale4073224427Sunnyvale4073234427	Site     #       Fr Mason     156     1     44       Fr Mason     156     2     44       Fr Mason     156     2     44       Emeryuille     156     3     44       Sunnyuale     407     3226     427       Sunnyuale     407     3223     427       Sunnyuale     407     3223     427       Sunnyuale     407     3223     427       Sunnyuale     407     3223     427       Sunnyuale     407     3285     427       Sunnyuale     407     3224     427       Sunnyuale     407     3227     427       Sunnyuale     407     3224     427       Sunnyuale     407     3224     427	Site # # # FT Mason 156 / 444 ordname reports no copies FT Mason 156 / 444 Gen corres FT Milbwell 156 2 444 Gen corres Emeryville 156 3 444 Gen corres Emeryville 156 3 444 Gen corres Sunnyvale 407 3226 427 Gen corres Sunnyvale 407 3223 427 Gen corres Sunnyvale 407 3285 427 Gen corres Sunnyvale 407 3287 427 Fiks Sunnyvale 407 3284 427 Gen corres Sunnyvale 407 3234 427 Gen corres Sunnyvale 407 607 607 607 607 607 607 607 607 607 6

¥

Records OF IT CORPS were searched due to yoth ChilbCo allachment REPRODUCED AT THE NATIONAL ARCHIVES

ند ان مر

#### ARCHIVE LOCATION: NATIONAL ARCHIVES DATE: 29 JANUARY 1994 SUITLAND BEANCH

•	Subject Site	RG	Box	Entry #	Folder #	Descrip	Init
	Hanford	175	40	1	140/167 5REC #6	HANFORD SOCK REPORT	CAC
	Hanford	175	38	1	140/167	CWS General Corness.	CAC
	Hanford	175	330	1	6 <b>00.</b> 114/ 11	CWS GENERAL CORRES.	<u>AIC</u>
	HANFURD	175	329	1	600.141/ 10-0	HANFORD LEASE & PROPERTY DESCRIPT.	CAC
	HANFORD	175	128	1	312.4/ 369	CWS GENERAL CORRES.	CAC
	HANFORD	175	129	1	312.1/94	CWS GENERAL CORRES	CAC
	CAMP STONEMAN	175	227	1	400.317 1800-2000	CAMP STONEMAN	CAC
	FT. Mc Dowell		253	1	497/644	REPORT ON GAS CYLINDERS	CAL
			-				
:. 	tra (n. 2014).	र, <del>क्र</del> ाइट्रेटे	an an Sa	liger of the second		a and a straight-	August An Augusta
						v	

and the second sec

ARCHIVE LOCATION: NATIONAL ARCHIES DATE: 31 DOWNTOWN FACILITY WASHINGTON, B.C.

DATE: 31 JANUARY 1994

RG	Box	Entry #	Folder #	Descrip	Init
160		87		SERVICES OF SUPPLY 4 ARMY SERVICE FORCES APRIL 9, 1940-JUNE 10, 1996	CAC
160		28		50APCY Correspondate 1942-46	CAC
160		90-		MONTHLY LEPORTS OF 9TH SERVICE (MINDS	CAC
160		211		STORAGE OPS.	CAC
160		211		STORAGE OPS	CAC
160		213		DIARIES	CAC
					1
					1
		<b></b>		· · · · · · · · · · · · · · · · · · ·	
	160 160 160 160	160 160 160 160	# 160 87 160 28 160 90- 160 211 160 211	# # 160 87 160 28 160 90- 160 211 160 211	#     #       160     87     Services of Supply       160     87     4 Demy Service Forces       160     28     Supply Condestributed       160     90-     Montmy leforts of 974       160     90-     Montmy leforts of 974       160     211     STORAGE OPS.

# ARCHIVE LOCATION: NARA Suitland, MD

•

•

Subject 	RG	Box	Entry #	Folder #	Descrip	Init
					Hospital Records at	
Camp STONEMAN	338	/			Camp STOREMAN	DLB
1					units of E CORPS	
Sunnyvale	407	3113	427			DLB
					A6 Records	
Sunnyvale	407	3292	427-			DLB
					Gen. Corres.	
Sunnyvale	407	3167	427			PLB
					ben. Corres.	
Sunnyvale	407	3127	427			DLB
					Gen. Corres.	
Sunny vale	407	3128	427		Cer. Corris.	DUB
					med. reports	
Sunnyvale	1/2	976	31		of yok Cullblo	PLB
		T			Med reports .	
Sunnyvale	112	981	31			DUB
		1	1	·	med reports	
SUMMyvale	112	987	31			DLB
		1	1	1	med reports	
Sunnyvale	112	99/	31			RLB
		<u> </u>	1	+		
				1		-
					+	
		+				
						•
		+				
L	<u></u>	<u> </u>	1			

DATE: 1 FEB 94

Subject Site	RG	Box	Entry #	Folder #	Descrip	Init
Fr. MASON	175	242	2		INDEX BRIEFS	DLB
Fr. M. Dowell	394	<b>ø</b> 8	298		Fr. M'Dowell Blog list	PLB
Sunnyuale	394	13	298		Sites in IX corps area	DLB
Emerguille	394	3	298		Sites in IF CORB area	₽LB
FT. Mason	394	5	299		prwwI into.	DLB
FT. M'Dowell	394	6	299		pre wwith info.	PL. <u>B</u>
Fr. Mason	175	23		061.03/	portable qqs chamber AT FT. MASON	DLB
					· · · · · · · · · · · · · · · · · · ·	
· ·			1			
· ·						

SVITLAND, MD

ARCHIVE LOCATION: WASHINGTON NATIONAL DATE: 1 FEBRUARY 1994 RECORDS CENTER

SUITLAND, MD

Subject Site	RG	Box	Entry #	Folder #	Descrip	Init
SEPOE	26	1	68 A 370f		COAST GUARD CORRESP. ON HAZARDOUS MARCERIL	CAC
S.F. POE	26	a	68 A 3704		COAST GUARD CORRESP. ON HAZARDOUS MATHRA	OC
FORT MASON	77	4	1502-31		GENERAL CORRESP.	CAC
FORT MASON	77	6	150)- <b>A</b> I		General Corresp.	CA!
<u>S.F. POE</u>	77	13	1502-31		GENERAL CORRESP.	(AC
SF. POE	77	15	1502-21		GENERAL CORRESP.	CAC
S.F. POE	77		A-53-325		GENERI CORRESP	CAC
<u>5.</u> F. POE	77	J	A-53-325		GENERAL CORRESP	CAC
5.F. POE	77	3	A-53-325		GENERAL CORRESP	CAR
5.F.PO <b>E</b>	77	4	A-53-325		GENERAL CORRESP	CAC
ALL	77	5	A-53-325		GENERAL CORRESP	CAC
ALL	77	6	A-53-325		CENERAL CORRESP	OAC
ALL	77	7	A-53-38		GENERAL CORDEST	CP
					· ·	

#### APPENDIX C-5

#### Site Survey Team Briefing Sheet

Site Survey Team Safety Briefing Sheet for Sunnyvale, CA

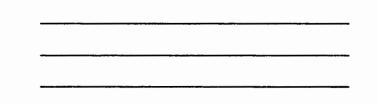
I. IMPORTANT PHONE NUMBERS:

A.Local Fire Department911 orB.Local Police Department911 or (408) 730-7160C.Huntsville Safety Division205-955-4968D.St. Louis District PM-M (Mike Dace) 314-331-8036

The nearest phone to the site is located at (This will be briefed at each location prior to the investigation beginning).

11. LOCATION OF NEAREST HOSPITAL: <u>El Camino Hospital</u>, 2500 Grant Road Mountain View 415-940-7000

III. MISSION STATEMENT: During this site survey you will be reconnoitering an area at the former Sunnyvale for the presence of ordnance and explosive waste (OEW) from conventional munitions and/or chemical warfare material (CWM). From the information already gathered by the St. Louis District Corps of Engineers certain areas at Sunnyvale have been identified as having a probability of OEW/CWM being found. These are the areas that will be surveyed today. Attachment 1 is a map that indicates the locations of these areas. The suspected OEW that may be encountered at these areas are:



IV. SAFETY STATEMENT:

#### \*\*\*\*\* NOTICE \*\*\*\*\*

Any team member who notices an unsafe act should immediately stop that individual from his/her action. Then report the action to the designated team safety officer. Any individual observed violating safety precautions may be directed to depart the site.

A. <u>Site Survey</u>: The reason for this site survey is for OEW/CWM Reconnaissance. Only personnel essential for the site survey will be allowed on site during the survey. There will be no smoking, eating, or drinking during the survey. Site survey members should always remain in sight of the other team members. The buddy system will be utilized during the survey. If during

this survey you encounter any known or suspected OEW/CWM you will immediately take the following actions:

1. Advise the other members of the site survey team.

2. Note the size and shape of the suspected ordnance and whether there are any marking on the OEW/CWM.

3. Move to a safe distance and determine whether the OEW/CWM has the potential to be an immediate threat.

4. If the OEW/CWM is deemed an immediate threat mark the area with the survey tape and proceed with the site survey. Upon completion of the site survey one site survey member will contact the Huntsville Safety Division and the local police. Advise these offices of the findings of the site survey. Huntsville will contact the nearest EOD unit and have them respond to your location. The remaining site survey members will stay at the site to warn civilians of the possible danger until relieved by EOD personnel or local fire/police personnel. Consolidate the survey notes from all site survey members and give to the Project Manager.

5. If the OEW/CWM is deemed not an immediate threat make note of the location and proceed with the site survey. Upon completion of the site survey consolidate the survey notes from all site survey members and give to the Project Manager.

Attachment 2 is a chart of the characteristics of chemical agents. If during this site survey or within the next 48 hours exhibit any symptoms of exposure to chemical agents you should seek immediate medical attention.

B. <u>Site Hazards</u>: At this site you may find various types of hazardous waste, wildlife, vegetation, as well as terrain. You should be aware of the potential for injury from these items. <u>CAUTION</u> is the key word. Do not put your hand or foot where you have not visually inspected the area first. Be aware of the weather conditions and their effect on the terrain. Rain or dew increases the chance for slips and falls. In this area be particularly alert for:

C. <u>Personnel Protective Clothing</u>: Safety shoes, safety glasses, gloves, and appropriate work clothing will be worn on site during the survey. Work clothing should be layered to allow for the changes in temperature throughout the day.

D. <u>Site Communications</u>: The primary means of signaling other team members will be by voice. Universal hand signals can be used over distances to great for voice communication.

E. <u>Weather Precautions</u>: In the event of severe weather (lightning, thunderstorms, high winds, hail, etc.) the site survey will be canceled until such weather subsides. If conducting the site survey during extreme temperatures frequent breaks should be scheduled to allow team members to refresh themselves.

F. <u>Survey Team Members Physical Conditions</u>: Individuals performing this site survey are cautioned that certain conditions may affect their ability to perform at remote locations and could have adverse health effects. Some examples of such illnesses, conditions, injuries, or medications which are significant are: high blood pressure, allergies such as to bee stings, fear of heights, diabetes, epilepsy, bad knees or other joints, color blindness, or HIV positive. Prior to the beginning of any site survey individuals should be aware of their condition and inform the safety briefer if they believe their condition would endanger themselves or others on the team.

IV. Safety Briefing Attendance:

Print Name and Organization

Dan Bradley, CELMS-PD-AC

Charles Camillo, CELMS-PD-AC

CHARLENE BOECKLEN, CELMS-PM-M

ignature Charlen

Safety briefing conducted by:

Robert J//Ténholder Project Manager, CELMS-PM-M

Date: <u>16 Feb 94</u>

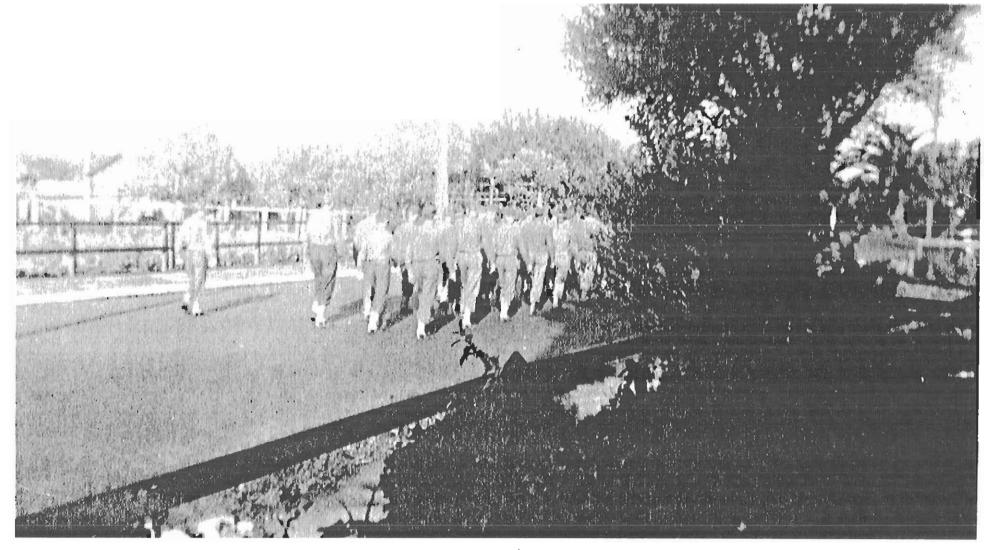
Site Survey Team Checklist

Ttom	Overtity	Check if Available
Item	<u>Quantity</u>	Available
1. First aid kit	1	
2. Survey tape	2 rolls	
3. Flashlight w/batteries	1/member	
4. Camera, 35 mm w/telephoto lens	1	
5. 35 mm film, 24 exp. 200 spd.	2 rolls	
6. Binoculars	1	<u> </u>
7. General purpose knife	1	
8. Baseball hat	1/member	
9. Insect repellant	1/member	
10. M-8 Chemical detection paper	1	
11. M-9 Chemical detection paper	1/member	
12. Safety boots	1 pr/membe	r 🔽
13. Safety glasses	1 pr/membe	r 📝
14. Work gloves	1 pr/membe	r 🔽
15. Rain suit	1 pr/membe	r 🔽
16. Hearing protection	1 pr/membe	r 🔼
17. Clipboard w/pens	1	
18. ASR information files	As Needed	
19. Maps of area/aerial photograph	As Needed	
20. Safety briefing sheet	1	
21. Home and Office phone numbers sheet	1	
22. Celluar telephone	1	
22. Portable computer	. 1	
23. FM 9-16, Explosive Ordnance Recognit:		
24. Backpack	1	
25. Carrying case w/luggage cart	1	
26. Machete with sheath	1	
27. GPS indicator	1	

\*\* Team members should bring appropriate clothing for the climate to which they are travelling. The site visit may involve all day walking through brush or wooded areas.

# APPENDIX D

# HISTORICAL PHOTOGRAPHS



1940

1940, Soldiers marching near Washington Park in Sunnyvale, California Original photograph located at the Sunnyvale Public Library

# APPENDIX E

:

# INTERVIEWS

Ordnance and Explosive Waste Chemical Warfare Material Archives Search Report for the former Sunnyvale Santa Clara County, California Site Number - J09CAT98300

#### APPENDIX E

#### INTERVIEWS

Individual <u>Contacted</u>	Position/ Organization	Date <u>Interviewed</u>
Ms. Pam Klein	California Historical Societ San Francisco, CA	zy 22 Dec 93
Ms. Linda Long	University Archives Stanford University, Stanford, CA	22 Dec 93
Ms. Susan Haley	Presidio Army Museum San Francisco, CA	22 Dec 93
Ms. Judy Carrasco- Vallejo	Records Control Officer US Army Corps of Engineers, San Francisco District	22 Dec 93
Ms. Joane McKenna	Archivist, U.S. Army Center of Military History	29 Dec 93
Ms. Pam Lampe	Records Control Officer ACOE, Sacramento District	29 Dec 93
Ms. Rosemary Warner	Records Control Officer General Services Administrat San Francisco, CA	3 Jan 94 ion,
Mr. Dennis Vetok	Tech Info Specialist, U.S. Military Institute	5 Jan 94
Ms. Ann Hines	Historian Sunnyvale Historical Society	6 Jan 94
Ms. Linda Jones	San Jose Chamber of Commerce	e 7 Jan 94
Ms. Sharon Kane	Real Estate Office, COE Sacramento District	14 Jan 94
Cmdr. Ralph Hearnes	Sunnyvale Police Dept.	18 Jan 94
Ms. Janice Tong	Public Information Coordinator, Ft. Mason	19 Jan 94

Ordnance and Explosive Waste Chemical Warfare Material Archives Search Report for the former Sunnyvale Santa Clara County, California Site Number - J09CAT98300

#### APPENDIX E

#### INTERVIEWS

Individual <u>Contacted</u>	Position/ Organization	Date <u>Interviewed</u>
Sgt. Marks	87th EOD, Presidio of San Francisco	20 Jan 94
Sgt Rivera	87th EOD, Presidio of San Francisco	24 Jan 94
Cmdr. Ralph Hearnes	Sunnyvale Police Dept. Sunnyvale, CA	24 Jan 94
Mr. Kainan Lee	Facility Engineer, Oakland Army Base	31 Jan 94
Mr. Edwin Kartman	Sunnyvale Public Library	2 Feb 94
Ms. Bev Walz	Sunnyvale Public Library	2 Feb 94
Ms. Anne Zarko	Long time resident Sunnyvale, CA	3 Feb 94
Ms. Jenny Thoen	Long time resident of Sunnyvale, CA	3 Feb 94
Jim and George	Maintenance men, Sunnyvale Park Department	16 Feb 94
Mr. Mike Moore	US Dept. of Interior, Geological Survey, Aerial Photography	16 Feb 94
Mrs. John D. Stewart	wife of veteran of 40th Chemical Laboratory	21 Feb 94

DATE 22 December 1993

or use of this form, see AR340-15; the propon	cat agency is the Adjutant General's Office.
---	--

SUBJECT OF CONVERSATION Camp Stoneman Fort Mason Fort McDowell Emeryville Ordnance Depot Hanford Warehouse Sunnyvale		
	INCOMING CALL	
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
OUTGOING CALL		

PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
Charles Camillo	PD-AC	(314) 331-8795
PERSON CALLED Pam Klein	OFFICE California Historical Society San Francisco, CA	PHONE NUMBER AND EXTENSION (415) 567-1848

summary of conversation. Inquired about the facility's holdings. Ms. Klein informed me that she did have information on our sites and would mail a findings aid as soon as possible. She suggested that our research team stop by and review material held at the facility. The facility is open on Wednesdays, and an appointment is necessary.

DATE 22 December 1993

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION Camp Stoneman Fort Mason Fort McDowell Emeryville Ordnance Depot Hanford Warehouse Sunnyvale		
	INCOMING CALL	
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
OUTGOING CALL		

PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
Charles Camillo	PD-AC	(314) 331-8795
PERSON CALLED Linda Long	OFFICE University Archives Stanford University Stanford, CA	PHONE NUMBER AND EXTENSION (415) 725-1026

SUMMARY OF CONVERSATION Inquired about the facility's holdings. Ms. Long informed me that the archive has virtually no information on our sites, however, she stated that the university library contains books that may be of use to the research team.

#### DATE 22 December 1993

#### TELEPHONE OR VERBAL CONVERSATION RECORD

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION Camp Stoneman Fort Mason Fort McDowell Emeryville Ordnance Depot Hanford Warehouse Sunnyvale	······································	
	INCOMING CALL	
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
	a soutgoing call	

PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
Charles Camillo	PD-AC	(314) 331-8795
PERSON CALLED Susan Haley	OFFICE Presidio Army Museum San Francisco, CA	PHONE NUMBER AND EXTENSION (415) 566-0845

SUMMARY OF CONVERSATION Inquired about the facility's holdings. Ms. Haley informed me that the museum had some information on the sites and would Fax the information to me. She suggested that the research team visit the Presidio Army Museum and the Fort Mason Museum.

DATE 22 December 1993

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION Access to Corp records		
	INCOMING CALL	
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
OUTGOING CALL		

PERSON CALLING Charles Camillo	ADDRESS PD-AC	PHONE NUMBER AND EXTENSION (314) 331-8795
PERSON CALLED Judy Carrasco-Vallejo	OFFICE Records Control Officer US Army Corps of Engineers San Francisco District	PHONE NUMBER AND EXTENSION (415) 744-3282

SUMMARY OF CONVERSATION: Called to gain access to Corps records. Ms. Carrasco-Vallejo obliged.

DATE 29-Dec-1993

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office. SUBJECT OF CONVERSATION Camp Stoneman Sunnyvale

# INCOMING CALL PERSON CALLING ADDRESS PHONE NUMBER AND EXTENSION PERSON CALLED OFFICE OUTGOING CALL

# PERSON CALLING ADDRESS PHONE NUMBER AND EXTENSION Dan Bradley CELMS-PD-AC 314-331-8789 PERSON CALLED OFFICE PHONE NUMBER AND EXTENSION Joanne McKenna Archivist Center Army Military History 202-504-5413

SUMMARY OF CONVERSATION:

Mrs. McKenna is the Archivist at the U. S. Army Center of Military History. I called in an attempt to determine the exact site at which the 40th Chem Lab. Co. was located. She stated that the only location in their files was listed as Sunnyvale. She could not be more specific. In reference to Camp Stoneman, she stated that the 15th Chem. Main. Co. passed through Camp Stoneman (as it was a staging area) on its way overseas.

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION Fort Mason Fort McDowell Camp Stoneman Emeryville Ordnance Depot Hanford Warehouse Sunnyvale		
	INCOMING CALL	
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
	• OUTGOING CALL	

PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
Charles Camillo	PD-A	(314) 331-8795
PERSON CALLED Pam Lampe	OFFICE Records Control Officer ACOE Sacramento District	PHONE NUMBER AND EXTENSION (916) 557-7079

SUMMARY OF CONVERSATION: Called to request permission to review and copy Corps records stored at the San Bruno Records Center. Ms. Lampe obliged. She also suggested that a trip be made to the Sacramento Office because many real estate and historical records are stored there by the Real Estate Office.

DATE 3 January 1994

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION Access to GSA records		
	INCOMING CALL	
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
OUTGOING CALL		

PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
Charles Camillo	PD-AC	(314) 331-8795
PERSON CALLED Rosemary Warner	OFFICE Records Control Officer General Services Administration San Francisco, CA	PHONE NUMBER AND EXTENSION (415) 744-5038

SUMMARY OF CONVERSATION: Called to gain access to GSA records. Ms. Warner obliged.

DATE 5-Jan-1994

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

 SUBJECT OF CONVERSATION

 Sunnyvale

 INCOMING CALL

 PERSON CALLING
 ADDRESS

 PERSON CALLED
 OFFICE

 PHONE NUMBER AND EXTENSION

 OUTGOING CALL

PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
Dan Bradley	CELMS-PD-AC	314-331-8789
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
Dennis Vetok	Tech Info Specialist	717-245-3611
	U. S. Military Inst,	

SUMMARY OF CONVERSATION:

Dennis Vetok is employed by the U. S. Military History Inst. at Carlisle Barracks, PA. I requested information on any institutions that may have been located at Sunnyvale and any information on the 40th Chem. Lab. Co. He searched a listing of U. S.Army installations during WWII and found nothing listed at Sunnyvale. He searched for installations near the Sunnyvale area and again found nothing. He suggested that I contact the U. S. Army Center of Military History in Washington D. C.

DATE 6-Jan-1994

 For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

 SUBJECT OF CONVERSATION
 Sunnyvale

 Sunnyvale
 INCOMING CALL

 PERSON CALLING
 ADDRESS
 PHONE NUMBER AND EXTENSION

 PERSON CALLED
 OFFICE
 PHONE NUMBER AND EXTENSION

 OUTGOING CALL
 OUTGOING CALL

PERSON CALLING Dan Bradley	ADDRESS CELMS-PD-AC	PHONE NUMBER AND EXTENSION 314-331-8789
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
Ann Hines	Historian	408-736-4971

SUMMARY OF CONVERSATION:

Mrs. Hines is a local Historian and is a member of the Sunnyvale Historical Society. She recalled that during the World War II, the Army had a camp in what is now Washington Park in Sunnyvale. She stated that Washington Park was located at the intersection of Sunnyvale Ave. and Evelyn Ave. She emphasized that it was a small camp not large enough to be considered a base. In addition, she stated that a Bowser Gas Mask Company used to be located in Sunnyvale during the World War II era. She suggested I contact the Historical Society office for additional information.

#### TELEPHONE OR VERBAL CONVERSATION RECORD DATE 7- Jan- 1994 For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION Sunnyvale INCOMING CALL PERSON CALLING ADDRESS PHONE NUMBER AND EXTENSION PERSON CALLED OFFICE PHONE NUMBER AND EXTENSION OUTGOING CALL

PERSON CALLING ADDRESS PHONE NUMBER AND EXTENSION CELMS-PD-AC 314-331-8789 Dan Bradley PERSON CALLED OFFICE PHONE NUMBER AND EXTENSION Linda Jones San Jose Chamber of Commerce 408-291-5250

SUMMARY OF CONVERSATION:

The San Jose Chamber of Commerce was contacted due to its position as the County Seat for Santa Clara County where Sunnyvale is located. I requested numbers for any local veteran's associations in Santa Clara County. The following numbers constitute those institutions registered with the Chamber of Commerce:

American Legion	G I Forum
Santa Clara, CA	San Jose, CA
(408) 727-7400	(408) 923-1646

Veteran's Administration Palo Alto, CA (415) 493-5000

FORM DA751

DATE 14 January 1994

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION Ft. Mason Ft. McDowell Camp Stoneman Emeryville Ordnance Depot Hanford Warehouse Sunnyvale		
	INCOMING CALL	
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
	OUTGOING CALL	
	l	· · · · · · · · · · · · · · · · · · ·

PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
Charles Camillo	PD-AC	(314) 331-8795
PERSON CALLED Sharron Kane	OFFICE Real Estate Office US Army Corps of Engineers Sacramento District Sacramento, CA	PHONE NUMBER AND EXTENSION (916) 557-6805

SUMMARY OF CONVERSATION: Informed her of our mission. She stated that real estate records on our sites were available at her office. An appointment was made to review the records on Thursday, 20 January 1994.

.

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION		
Sunnyvale, CA		
INCOMING CALL		
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
	OUTGOING CALL	
PERSON CALLING	OUTGOING CALL ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLING Bob Tenholder		PHONE NUMBER AND EXTENSION 314-331-8786
	ADDRESS	

SUMMARY OF CONVERSATION:

Cmdr. Hearnes was contacted while trying to gather information about the activities of the 40th Chemical Laboratory Company while stationed in Sunnyvale, CA during WWII. He has been with the Sunnyvale PD for 28 years. Cmdr Hearnes has never heard of any old military munitions being dug up or discovered around Sunnyvale. His department has had some more current baseball type grenades brought in by civilians, but he felt that these had been war souvenirs brought back by veterans.

I asked Cmdr Hearnes about the history of Sunnyvale. He stated the city was incorporated in 1950. That there are two chemical companies in town now. The Mohawk Labs were not around in the 1940s. The other company, Stouffer Chemicals, might have been around in the 1940s but he was not sure. When asked about military activities in the area during WWII, he said that most military training occurred at Moffet Field NAS or at Camp Parks. Moffet is still active, but Camp Parks has been closed and the property is in private hands now. Camp Parks was adjacent to Moffet Field NAS.

Cmdr Hearnes said he would do some more checking around town and see what he could find, and would get back to me.

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION Fort Mason Fort McDowell Camp Stoneman Emeryville Ordnance Plant Hanford Warehouse Sunnyvale		
	INCOMING CALL	
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
	OUTGOING CALL	

PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
Charles Camillo	PD-AC	(314) 331-8795
PERSON CALLED Janice Tong	OFFICE Public Information Coordinator Fort Mason Center San Francisco, CA	PHONE NUMBER AND EXTENSION

SUMMARY OF CONVERSATION: Met with Janice Tong at the Fort Mason Center Main Office. Informed her of our mission and she responded by presenting the research team with a structural history report. She suggested that the team contact Mr. Armando Quinterro of the National Parks Service at Fort Mason. For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION

Ft. Mason, CA Ft. McDowell, CA Camp Stoneman, CA Emeryville Ordnance Depot, CA Hanford Warehouse, CA Sunnyvale, CA

INCOMING CALL		
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
	OUTGOING CALL	
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
Bob Tenholder	CELMS-PM-M	314-331-8786
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
SGT. Marks	87th EOD, Presidio of San Francisco	AV 586-2437 415-561-2437

SUMMARY OF CONVERSATION:

The 87th EOD was contacted to determine if their unit had ever responded to any of the sites listed above. SGT Marks stated he had only been assigned to the Presidio for about 1½ years. His NCOIC, 1SG Rivera, has been there for three tours, but is not in today. SGT Marks would relay the message to 1SG Rivera and have him call me.

.

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION

Ft. Mason, CA Ft. McDowell, CA Camp Stoneman, CA Emeryville Ordnance Depot, CA Hanford Warehouse, CA Sunnyvale, CA

INCOMING CALL		
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
	OUTGOING CALL	
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
Bob Tenholder	CELMS-PM-M	314-331-8786
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
1SG Rivera	87th EOD, Presidio of San Francisco	AV 586-2437 415-561-2437

SUMMARY OF CONVERSATION:

1SG Rivera, has been assigned to the Bay area for two tours. The first was from 1976 to 1983 and the second was from 1991 to the present. The sergeant could only remember one incident where his unit responded to any of the above mentioned sites. He thinks that in the mid- to late-1970s they responded to a call about a cannon ball being found at Ft. Mason.

#### TELEPHONE OR VERBAL CONVERSATION RECORD DATE 24 January 1994

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION Sunnyvale, CA INCOMING CALL PERSON CALLING ADDRESS PHONE NUMBER AND EXTENSION 430-730-7160 Cmdr. Ralph Hearnes Sunnyvale Police Dept. PERSON CALLED PHONE NUMBER AND EXTENSION OFFICE Bob Tenholder CELMS-PM-M 314-331-8786 OUTGOING CALL PERSON CALLING ADDRESS PHONE NUMBER AND EXTENSION OFFICE PERSON CALLED PHONE NUMBER AND EXTENSION

SUMMARY OF CONVERSATION:

Cmdr. Hearnes telephoned the St. Louis District office to advise that he had checked around town with several sources and no one could remember soldiers being stationed in town during WWII.

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION

Ft. Mason, CA Ft. McDowell, CA Camp Stoneman, CA Emeryville Ordnance Depot, CA Hanford Warehouse, CA Sunnyvale, CA

INCOMING CALL

PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
OUTGOING CALL		
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLING Bob Tenholder	ADDRESS CELMS-PM-M	PHONE NUMBER AND EXTENSION 314-331-8786

SUMMARY OF CONVERSATION:

Mr. Lee was contacted to determine if his office had historical drawings for any of the sites listed above. Mr. Lee checked in his files and found no information concerning any of the sites. He said he did have information for Moffett Field if we were interested.

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION		
Sunnyvale, CA		
INCOMING CALL		
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
	OUTGOING CALL	
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
Bob Tenholder	CELMS-PM-M	314-331-8786
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION

SUMMARY OF CONVERSATION:

Mr. Kartman was contacted while trying to gather information about the activities of the 40th Chemical Laboratory Company while stationed in Sunnyvale, CA during WWII. He stated the library does have local history books and articles, but he is not personally familiar with their contents. He recommended that I call back later and ask for Bev, the woman responsible for the Sunnyvale historical section. Bev is also an active member of the local historical society.

Mr. Kartman also suggested that I contact the San Jose Public Library, 408-277-4846, and review their collection of newspapers. The newspapers may contain an article about the arrival or departure of the unit from town, if that information wasn't classified.

The Sunnyvale Library is open Monday-Thursday from 10am to 9pm. Friday and Saturday from 10am to 6pm.

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION		
Sunnyvale, CA		
INCOMING CALL		
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
OUTGOING CALL		
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
Bob Tenholder	CELMS-PM-M	314-331-8786
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
Ms. Bev Walz	Sunnyvale Public Library	408-730-7300

SUMMARY OF CONVERSATION:

Ms. Walz was contacted while trying to gather information about the activities of the 40th Chemical Laboratory Company while stationed in Sunnyvale, CA during WWII. She said she remembered talking to The St. Louis District archivists when they were in town doing research. She had sent them to talk to Mr. Howard Winters, Sunnyvale Historical Society.

Ms. Walz wasn't sure if she had also told them about Ms. Anne Zarko, 408-736-5315, an elderly resident of the town, who knew much about the history of the town. Ms. Zarko was born in 1910. Ms. Walz also said that the Sunnyvale Library has copies of the *Sunnyvale Standard* on microfilm for the war years. Since the St. Louis District knows the dates the 40th Chemical Laboratory was in town these newspapers might talk about the unit's activities.

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION		
Sunnyvale, CA		
INCOMING CALL		
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
OUTGOING CALL		
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
Bob Tenholder	CELMS-PM-M	314-331-8786
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
Ms. Anne Zarko	Long time resident of Sunnyvale, CA	408-736-5315

SUMMARY OF CONVERSATION:

Ms. Zarko remembers the soldiers living in Washington Park. She did not know where or how they trained. She assumed that they trained in the park. Ms. Zarko said that a woman she knew of married one of the Washington Park soldiers. She knew this woman's sister better and recommended that I contact her, Mrs. Jenny Thoen, 408-736-3344. Mrs. Zarko said she would put on her thinking cap and try to remember more about the soldiers in the park, particularly the 40th Chemical Company. I advised her that I would contact her when I was in the area.

#### TELEPHONE OR VERBAL CONVERSATION RECORD DATE 3 February 1994

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION		
Sunnyvale, CA		
INCOMING CALL		
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
OUTGOING CALL		
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
Bob Tenholder	CELMS-PM-M	314-331-8786
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION
Ms. Jenny Thoen	Long time resident of Sunnyvale, CA	408-736-3344

SUMMARY OF CONVERSATION:

Ms. Thoen remembers the soldiers living in Washington Park. She did not know where or how they trained. She remembers that there were a lot of them living in the park, more than 200. There was also a Japanese POW camp in the park, but away from the soldiers somewhere. She remembers the soldiers marching down the street on Saturdays and marching to church on Sunday. There were also soldiers who lived at the Fremont High School. Her sister did marry a man who was stationed at Washington Park, his name was Chappel. A review of the 40th Chemical Company manning roster shows that this man was not part of the 40th. Ms. Thoen said the name of another man she knew who lived in the park, but he too was not part of the unit. Ms. Thoen will try to remember more about the soldiers who lived in the park. I will contact her again when I'm in the area for the site survey.

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION Sunnyvale, CA INCOMING CALL PERSON CALLING ADDRESS PHONE NUMBER AND EXTENSION PERSON CALLED OFFICE PHONE NUMBER AND EXTENSION OUTGOING CALL PERSON CALLING ADDRESS PHONE NUMBER AND EXTENSION 314-331-8786 Bob Tenholder CELMS-PM-M PERSON CALLED OFFICE PHONE NUMBER AND EXTENSION Jim and George Maintenance men, Sunnyvale, CA Park Department

SUMMARY OF CONVERSATION:

During the site survey the two maintenance men for the park were interviewed. Neither man has ever noticed any type of military debris while maintaining the park. They were unaware of where the old wooden barracks might have been. The only knew that the large BBQ pit in the park had a sign which indicated that the pit was built in 1948.

SUBJECT OF CONVERSATION Sunnyvale, CA INCOMING CALL PERSON CALLING ADDRESS PHONE NUMBER AND EXTENSION PERSON CALLED OFFICE PHONE NUMBER AND EXTENSION OUTGOING CALL PERSON CALLING ADDRESS PHONE NUMBER AND EXTENSION Bob Tenholder CELMS-PM-M 314-331-8786 PERSON CALLED OFFICE PHONE NUMBER AND EXTENSION US Dept of Interior, 415-329-4309 Mr. Mike Moore Geological Survey, Aerial Photography

SUMMARY OF CONVERSATION:

Mr. Moore works in the archival section of the aerial photography department. He also grew up in Sunnyvale, California. Mr. Moore checked the APSRS system of aerial photograph listings available. This system is on CD-ROM. His records showed that the earliest photograph available of Sunnyvale where Washington Park is located was a 1947 photo. The photo was taken by the USGS and was used in the development of the topography map for the area. This photo was not located at his office and would have to be ordered from Salt Lake City. It would take 4-6 weeks for delivery.

Mr. Moore then went to his office files to see what was available of the area. There he found a 31 July 1939 and a 1960 aerial photograph. These photos were located in the departments Palo Alto files, Mountain View and Cupertino folders. Mr. Moore said that there was a high resolution copier available near his office and copies could be made quite easily.

Mr. Moore's office is located in San Mateo, CA. To get to the office take Highway 101 south to the Willow exit. Go through three lights and make a right on Middlefield. Then go one block to the All State Insurance building. Turn left on Linfield and go one block to Homewood. the office is on the corner.

Mr. Moore also recommended that I contact Whittier College as they had a large collection of aerial photographs of the area from the WWII time period.

For use of this form, see AR340-15; the proponent agency is the Adjutant General's Office.

SUBJECT OF CONVERSATION

Sunnyvale, CA

INCOMING CALL		
PERSON CALLING Mrs. John D. Stewart	ADDRESS	PHONE NUMBER AND EXTENSION 407-268-1592
PERSON CALLED Bob Tenholder	OFFICE CELMS-PM-M	PHONE NUMBER AND EXTENSION 314-331-8786
	OUTGOING CALL	
PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION
PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION

SUMMARY OF CONVERSATION:

Mrs. Stewart contacted the St. Louis District office as a result of the letter she received for her husband, a veteran of the 40th Chemical Laboratory Company. Mrs. Stewart stated her husband had died in March 1992. Before he died he had told her about how while stationed at Sunnyvale he had been scratched with Mustard agent on his arm as part of his training. She was not aware of any other training that her husband had done at Sunnyvale.

Mrs. Stewart stated that her husband had been a chemist with the Eli Lilly Company in Indianapolis, Indiana before the war.

# APPENDIX F

# NEWSPAPERS/JOURNALS

#### 173712777

IS ATE ALL

whether it be baseball, football, bowing racing or bridge. ust now the nation is debating the future of paseball football and horse racing Baseball is the national sport of the common man, footbase that of colleges and high schools while horse racing is something more than the sport of kings

Amid the confusion of rationing this and that is it possible that the "do-gooders" have overlooked the effect on national. morale and the morale of the men doing the fighting if our fav rite sports are removed from the national scene?

We are one of those glad to see horse racing making a bid! to stay on, gasoline and tires to the contrary. We were glad to read of the Navy's decision to permit football to continue in the colleges where naval cadets are entitled, as long as it does not interfere with the Navy's schedules.

But most of all we believe it would be a tragic mistake to cless down baseball in the major and principal minor leagues. Many of the smaller minor leagues have been forced to throw in the sponge for sheer lack of men, but those in authority should do everything possible to assure the American public and those fighting for us something to live with in the form of the great national sport.

And by the way, we haven't heard of the British calling a halt to their racing, soccer and cricket and they are directly under the guns and planes of the enemy. The same goes for Australia.

#### STANFORD OFFERS FREE CHEM. COURSE

With the War Manpower Commission urging more women to get into war industries and directing had completed its training, more men in non-essential jobs to plan than 50 per cent of the students for war work, Stanford University wall open this month a free course to train persons as chemical techmeians for esesntial war plants.

The full-time course, called YLI last week was a very gay afchemical laboratory \* technician fair of the season. Games and retraining, is to start on Monday, freshments were in keeping with February 15, and will meet five theme of the party, and "a good days a week for 15 weeks on the time was had by all."

The need for trained chemical technicians is indicated by the demand for graduates of the first class at Stanford. Before the group were employed.

194

JULY

CALIFORNIA

EXTRACT FROM

#### YLI KIDS PARTY

Stanfort campus

The "Kid's Party" held by the



# APPENDIX G

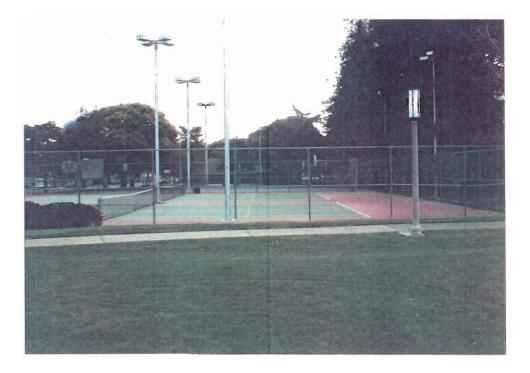
# PRESENT SITE PHOTOGRAPHS



Looking northwest at the ballfields in Washington Park. This park was where the 40th Chemical Company bivouacked.



Looking west across Washington Park.



Looking east at the tennis courts at Washington Park.



Looking north at the Youth Facility in Washington Park.



Looking north across McKinley Avenue into Washington Park.

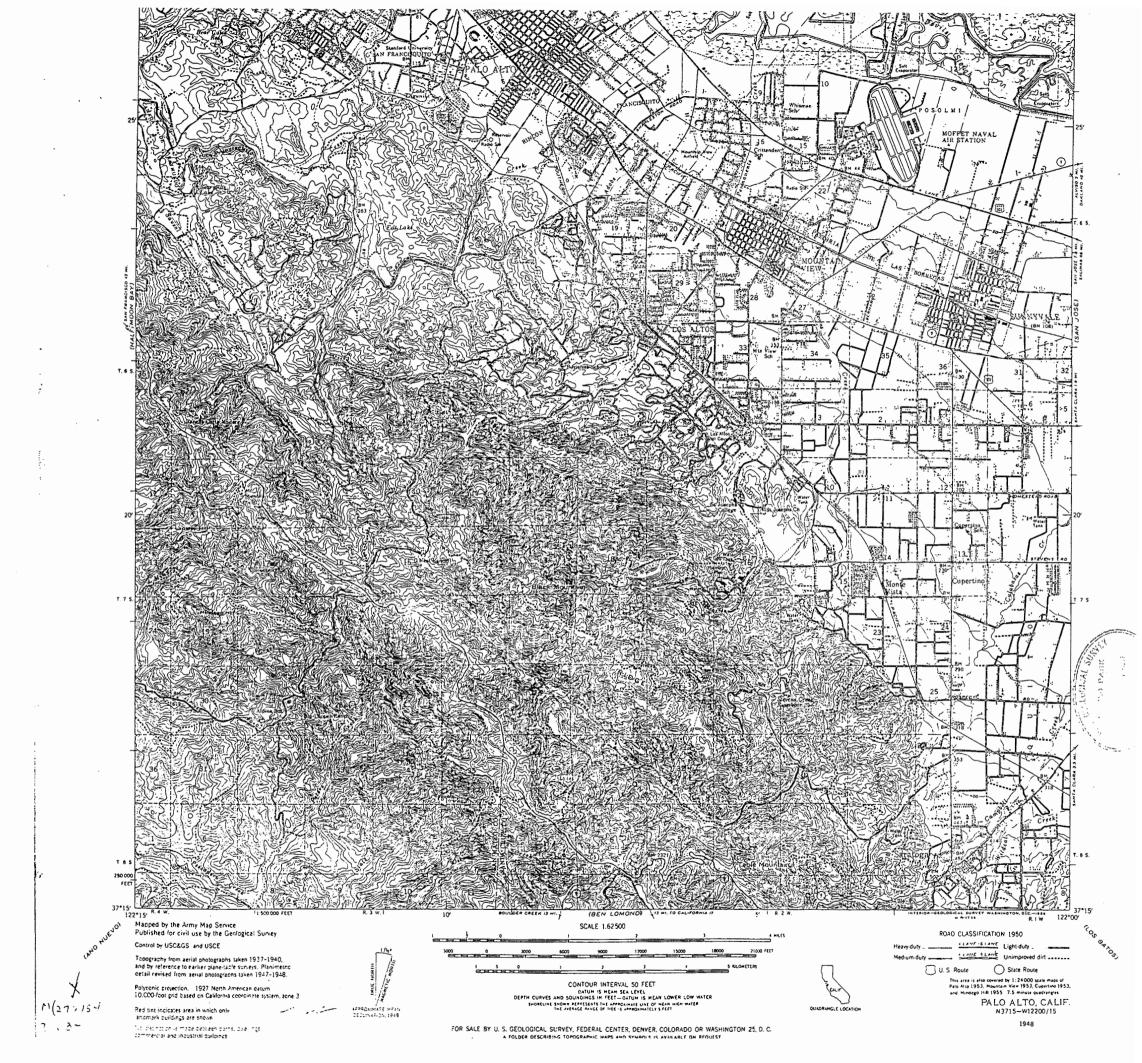


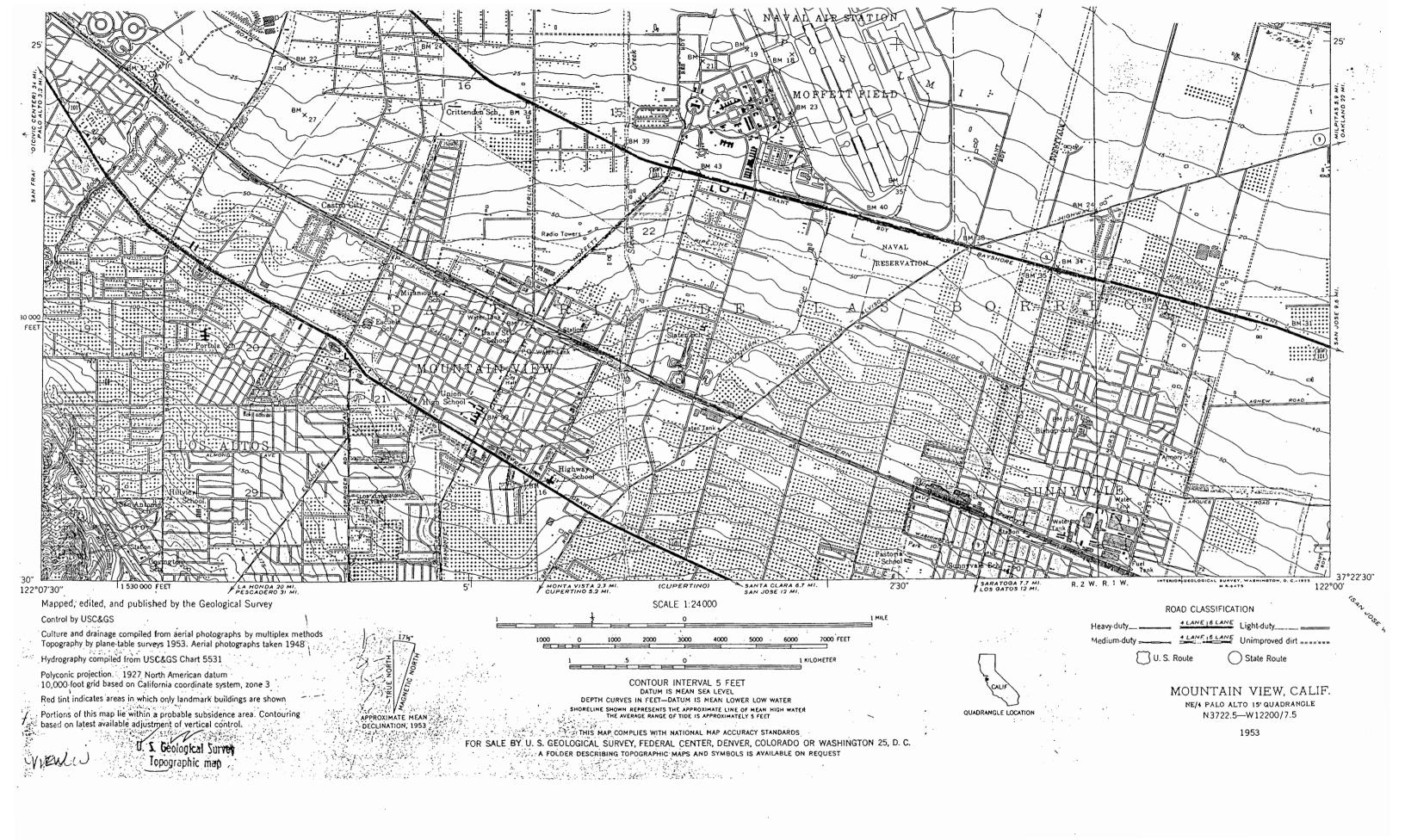
Looking northwest from the intersection of Washington Avenue and Pastoria Avenue. These homes were built where the barracks stood.

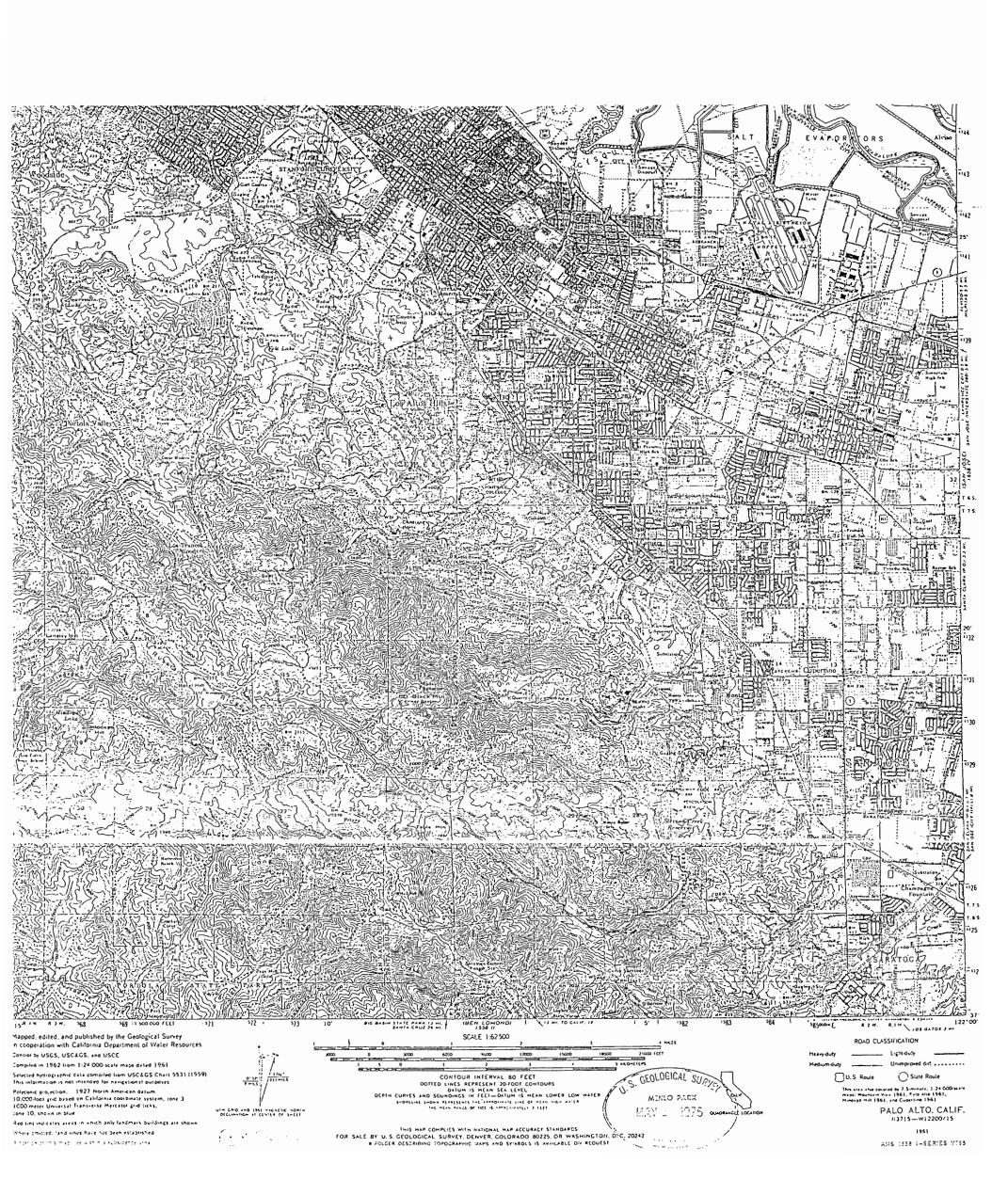
### APPENDIX H

•

# HISTORICAL MAPS/DRAWINGS







### APPENDIX I

### RISK ASSESSMENT PROCEDURES FOR ORDNANCE AND EXPLOSIVE WASTE (OEW) SITES

### RISK ASSESSMENT PROCEDURES FOR MILITARY MUNITIONS RESPONSE PROJECTS

Property Name:	Sunnyvale	Rater's Name:	Daniel Linehan
Property Location:	Sunnyvale, CA	Phone Number:	918-420-8867
FUDS Property/Project #:	J09CA705500	District:	DAC
Property Type:	Bivouac Area	Office Symbol:	SJMAC-ESM
Score:	5	Date Completed:	3 Nov 2004

#### **RISK ASSESSMENT:**

This risk assessment (RAC) procedure was developed to address explosives safety hazards related to munitions. This procedure does not address environmental hazards associated with munitions constituents. The U.S. Army Engineering and Support Center, Huntsville (USAESCH), Ordnance and Explosives Directorate (CEHNC-OE) developed this procedure in accordance with MIL-STD 882C and AR 385-10. The Risk Assessment Code (RAC) score will be used by the U.S. Army Corps of Engineers to prioritize the response action(s) at Formerly Used Defense Sites (FUDS). The risk assessment should be based on the best available information resulting from record searches, reports of Explosive Ordnance Disposal (EOD) actions, field observations (site visits), and interviews. This information is used to assess the risk involved based on the <u>potential</u> MMRP hazards identified for the project. The risk assessment evaluates two factors, <u>hazard severity</u> and <u>hazard probability</u>.

<u>**Part I - Hazard Severity</u>**. Hazard severity categories are defined to provide a qualitative measure of the worst credible event resulting from personnel exposure to various types and quantities of unexploded ordnance.</u>

TYPE OF ORDNANCE: (Check all that apply)	
A. Conventional ordnance and ammunition:	VALUE
Projectiles, explosive (20 millimeter and larger)	10
Bombs, explosive	10
Grenades, hand or rifle, explosive	10
Landmine, explosive	10
Rockets, guided missile, explosive	10
Other Explosive item not previously stated	10
Bomb, practice (w/spotting charge)	6
Detonators, blasting caps, fuses, boosters, bursters	6
Practice ordnance (w/ spotting charges, other than bombs)	4
Small arms, complete round (.50 cal or less)	1
Small arms, expended (.50 cal or less)	0
Practice ordnance (w/o spotting charges)	0
Conventional ordnance and ammunition (enter largest single value checked)	<u>0</u>

What evidence do you have regarding conventional unexploded ordnance? <u>Historical documentation</u> indicates that no MEC related activities occurred at this site.

### B. Pyrotechnics (for munitions not described above):

	VALUE
Munitions containing White Phosphorus (WP) or other pyrophoric material (i.e., spontaneously flammable)	10
Munitions containing a flame or incendiary material (i.e., Napalm, Triethylaluminum metal incendiaries)	10
Containers containing WP or other pyrophoric material or flame or incendiary material	6
Flares, signals, simulators, screening/burning smokes (other than WP)	4
Pyrotechnics (enter the single largest value checked)	<u>0</u>

What evidence do you have regarding pyrotechnics? None.

C. Bulk Explosives (HE) (not an integral part of conventional ordnance; un-container	ized):
	VALUE
Primary or initiating explosives (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	10
Secondary explosives (Demolition charges, PETN, Compositions A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc.)	8
Insensitive explosive substances (explosive contaminated soils, ammonium nitrate)	3
Bulk Explosives (HE) (enter the single largest value checked)	<u>0</u>

What evidence do you have regarding bulk explosives? None

# **D.** Bulk propellants (not an integral part of rockets, guided missiles, or other conventional ordnance; uncontainerized )

	VALUE
Solid or liquid propellants	6
Bulk Propellants (select 6 or 0)	<u>0</u>

What evidence do you have regarding bulk propellants? None

# E. Recovered Chemical Warfare Materiel (RCWM), Weaponized Industrial Chemicals and Radiological Materiel:

	VALUE
Toxic chemical agents (H-Mustard, G-Nerve, V-Nerve and L-Lewisite)	25
Chemical Agent Identification Sets	20
Radiological Materiel (If rad waste is identified please call the HTRW–CX at 402-697-2555)	15
Weaponized Industrial Chemicals (Hydrogen Cyanide AC; Cyanogen Chloride, CK; Phosgene, CG)	10
Riot Control Agents (vomiting, tear)	5
Chemical and Radiological (enter the single largest value checked)	<u>0</u>

What evidence do you have regarding chemical or radiological? None

TOTAL HAZARD SEVERITY VALUE (Sum of value A through E, maximum of 61) Apply this value to Table 1 to determine Hazard Severity Category

<u>0</u>

### TABLE 1 HAZARD SEVERITY\*

DESCRIPTION	CATEGORY	HAZARD SEVERITY VALUE
CATASTROPHIC CRITICAL MARGINAL NEGLIGIBLE **NONE		21 and/or greater 10 to 20 5 to 9 1 to 4 0

\*Apply Hazard Severity Category to Table 3 and complete Part II of this form. \*\*If hazard severity value is 0, complete Part II of this form. Then proceed to Part III and use a RAC score of 5 to determine your appropriate action.

<u>PART II - Hazard Probability</u>. The probability that a hazard has been, or will be, created due to the presence and other rated factors of unexploded ordnance, explosives, incendiary, pyrotechnic, radiological, or RCWM materials on a formerly used Department of Defense (DOD) site.

### AREA, EXTENT, ACCESSIBILITY OF MMRP HAZARD (Check all that apply)

А.	Locations of MMRP hazards:	
		VALUE
	On the surface	5
	Within tanks, pipes, vessels, or other confined areas	4
	Inside walls, ceilings, or other building/structure	3
	Subsurface	2🖂
Lo	cation (enter the single largest value checked)	<u>2</u>

What evidence do you have regarding the location of MMRP? <u>Any MEC related items would have to be</u> <u>subsurface.</u>

Property Name: Project Number: Property Type: ..

() () (D) )

# B. Distance to nearest inhabited location/structure likely to be at risk from MMRP hazard (road, park, playground, building, etc.).

	VALUE
Less than 1,250 feet	5🖂
1,250 feet to 0.5 mile	4
0.5 mile to 1.0 mile	3
1.0 mile to 2.0 Miles	2
Over 2 miles	1
Distance (enter the single largest value checked)	<u>5</u>

What are the nearest inhabited structures/buildings? Residences, school, city park,

# C. Number(s) of building(s) within a 2-mile radius measured from the MMRP hazard area, not the installation boundary.

	VALUE
26 and over	5 🛛
16 to 25	4
11 to 16	3
6 to 10	2
1 to 5	1
0	0
Number of buildings (enter the single largest value checked)	<u>5</u>

Narrative: Self-explanatory.

### D. Types of Buildings (within 2-mile radius)

	VALUE
Educational, childcare, residential, hospitals, hotels, commercial, shopping centers	5⊠
Industrial, warehouse, etc.	4
Agricultural, forestry, etc.	3
Detention, correctional	2
No buildings	0
Types of buildings (enter the single largest value checked)	<u>5</u>

Describe the types of buildings: <u>Self -explanatory</u>.

## E. Accessibility to site refers to access by humans to military munitions. Use the following guidance:

	VALUE
No barrier nor security system	5🖂
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing	4
A barrier (any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	3
Security Guard, but no barrier	2
A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel continuously monitors and controls entry; or, an artificial or natural barrier (e.g., fence combined with a cliff) which completely surrounds the area; and, a means to control entry at all times through the gates or other entrances (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the area).	0
Accessibility (enter the single largest value checked)	<u>5</u>

,

Describe the site accessibility: The area is completely accessible to the public.

F. Site Dynamics. This deals with site conditions that are subject to change in the future, but may be stable at the present. Examples would be excessive soil erosion on beaches or streams, increasing land development that could reduce distances from the site to inhabited areas or otherwise increase accessibility.

	VALUE
Expected	5⊠
Not anticipated	0
Site Dynamics (enter the single largest value checked)	<u>5</u>

Describe the site dynamics: The potential for futher development does exist.

### TOTAL HAZARD PROBABILITY VALUE

(Sum of largest values for A through F (maximum of 30). Apply this value to Hazard Probability Table 2 to determine the Hazard Probability Level.

27

TABLE 2HAZARD PROBABILITY\*

<b>DESCRIPTION VALUE</b>	LEVEL	HAZARD PROBABILITY
FREQUENT	A	27 or greater
PROBABLE	В	21 to 26
OCCASIONAL	С	15 to 20
REMOTE	D	8 to 14
IMPROBABLE	E	less than 8

\*Apply Hazard Probability Level to Table 3.

**<u>Part III - Risk Assessment.</u>** The risk assessment value for this site is determined using the following Table. Enter the results of the Hazard Probability and Hazard Severity values.

PROBABILITY LEVEL	Z F	REQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
SEVERITY CATEGORY:						
CATASTROPHIC	I I	1	1	2	3 🔲	4 🛄
CRITICAL	II	1	2	3	4 🗌	4
MARGINAL	ш	2	3	4	4	4
NEGLIGIBLE I	(V	3	4	4	4	4
None $(V) = RAC 5$	$\overline{\mathbf{N}}$					. <u>Malaki i janaki i</u>

TABLE 3

#### RISK ASSESSMENT CODE (RAC)

- RAC 1-4 Recommend and approve further action as appropriate. Refer to EP 1110-1-18 for discussion of MMRP projects and the process to be followed for execution of project response actions.
- RAC 5 Usually indicates that No DOD Action Indicated (NDAI) is necessary. Recommend and approve NDAI and follow instructions for project closeout in accordance with current program guidance.

<u>PART IV - Narrative</u>. Summarize the documented evidence that supports this risk assessment. If no documented evidence was available, explain all the assumptions that you made. <u>There is no evidence of confirmed or potential MEC presence resulting from activities during DOD</u> ownership. There was no indication that personnel participated in any ordnance related activities on this site and all laboratory work was executed at nearby Stanford University.

## APPENDIX J

### **REPORT DISTRIBUTION LIST**

. . .

Ordnance and Explosive Waste Chemical Warfare Material Archives Search Report for the former Sunnyvale Santa Clara County, California Site Number - J09CAT98300

#### APPENDIX J

### REPORT DISTRIBUTION LIST

Addressee	<u>No. Copies</u>
Commander, U.S. Army Engineer Division Huntsville, ATTN: CEHND-ED-SY P.O. Box 1600 Huntsville, Alabama 35807-4301	3
Commander, U.S. Chemical & Biological Defense Command ATTN: AMSCB-CIH, Bldg. E5183 Aberdeen Proving Ground, Maryland 21010-5423	1
Commander, U.S. Chemical Material Destruction Agency ATTN: SFIL-NSM, Bldg. E4585 Aberdeen Proving Ground, Maryland 21010	1
Commander, U.S. Army Engineer District	1
CELMS-ED-G -ED-H -PD -PM-M	1 1 1 1



