FINAL

US Army Corps of Engineers®
Rock Island District

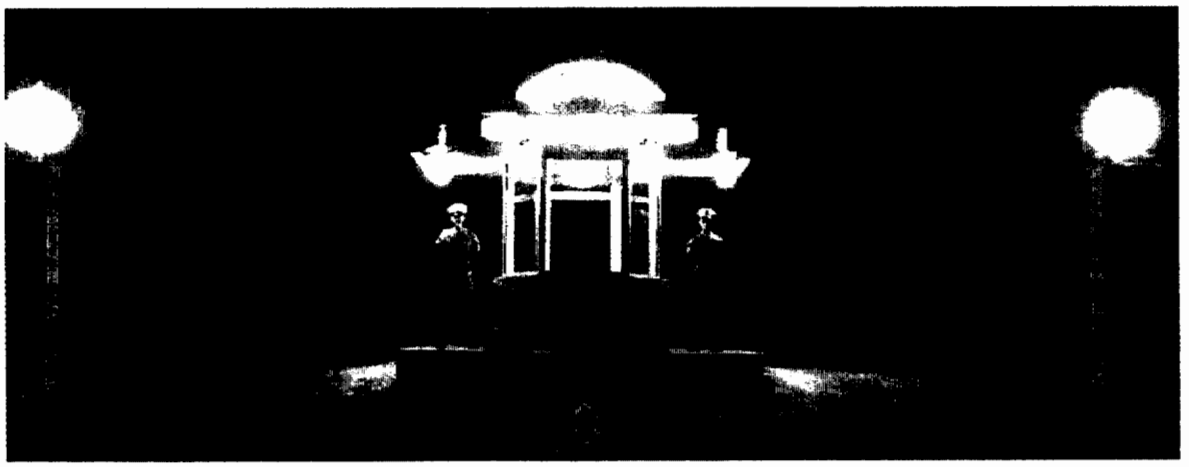
Defense Environmental Restoration Program
for
Formerly Used Defense Sites
Ordnance and Explosives

Archives Search Report

for
the former

TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

OCTOBER 2003



FINAL

RESTORATION INFORMATION MANAGEMENT SYSTEM
PROJECT FACT SHEET
FORMERLY USED DEFENSE SITES
OCTOBER 2003
TAG REVIEW DATE: 17 AUGUST 2004

1. **SITE NAME:** Two Rock Ranch Station

SITE NUMBER: J09CA098300

LOCATION:

County: Sonoma and Marin
State: California

PROJECT NUMBER: J09CA098303

CATEGORY: MMRP

INPR RAC:

ASR RAC: 5

TAG RAC: **5**

2. **POC'S:**

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

GEOGRAPHIC DIVISION:
Name: Vincent Delgreco
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Phone: 415-977-8246

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

ASR/INPR TEAM:
Name: Bradford McCowan
Office: CEHNC-MEC-CX
Phone: 256-895-1174

ASR SUPPORT DISTRICT:
Name: Joe W. Vann III
Office: CEMVR-ED-DO
Phone: 309-794-5163

ASR TECHNICAL REVIEWER:
Name: Ron Thornhill
Office: SJMAC-ESM
Phone: 918-420-8395

3. **SITE DESCRIPTION:**

a. The former Two Rock Ranch Station is located approximately 10 miles northwest of the city of Petaluma in Sonoma and Marin Counties, California. The majority of the site is currently known as U.S. Coast Guard Training Center (TRACEN) Petaluma. An elementary schools, a private ranch, and an undeveloped grazing tract make up the remainder for of the 876.41 total acres.

4. **SITE HISTORY:**

a. Two Rock Ranch Station was established on 07 August 1942 as a signal transmission monitoring station. At the end of World War II control was transferred to the Army Security Agency while the mission remained the same.

b. On 25 April 1947. a tract containing 35.37 acres was transferred from the War Department to the War Assets Administration (WAA). An additional 5.36 acres was quitclaimed to the Two Rock Union School District on 11 December 1951.

c. Advances in technology made the antenna fields at Two Rock Ranch Station obsolete and the installation was closed on 30 June 1971. On 29 July 1971, the Department of the Army transferred the remaining 835.68 acres to the U.S. Coast Guard (USCG), Department of Transportation (DOT) for use as a USCG training center. The USCG also obtained the 35.37-acre tract that had been transferred to the WAA in 1947.

d. In 1985, DOT conveyed two parcels consisting of 30.89 acres and 35.37 acres to private individuals. An additional 8.56-acre tract was deeded to the Two Rock Union School District.

5. **PROJECT DESCRIPTION:**

Area A:

Size:	4.7 acres
Former Use:	Small Arms Range
Present Use:	Nature Area
Possible End Use:	Same
MEC Presence:	
Confirmed:	None
Potential:	None

ASR Recommends:	RAC 5
HNC Safety:	RAC 5

Area B:

Size:	2.2 acres
Former Use:	Small Arms Magazines and Landfill
Present Use:	Agricultural
Possible End Use:	Same
MEC Presence:	
Confirmed:	None
Potential:	None
ASR Recommends:	RAC 5
HNC Safety:	RAC 5

Area C:

Size:	2.5 acres
Former Use:	Vietnam Village
Present Use:	Eucalyptus Grove
Possible End Use:	Same
MEC Presence:	
Confirmed:	None
Potential:	None
ASR Recommends:	RAC 5
HNC Safety:	RAC 5

Area D:

Size:	29.30 acres
Former Use:	Skeet Range
Present Use:	Skeet Range
Possible End Use:	Same
MEC Presence:	
Confirmed:	None
Potential:	Small Arms Ammunition
ASR Recommends:	RAC 5
HNC Safety:	RAC 5

Area E:

Size:	837.71 acres
Former Use:	Antenna Fields, Cantonment Area
Present Use:	Agricultural/Residential/ Undeveloped land
Possible End Use:	Same
MEC Presence:	
Confirmed:	None
Potential:	None
ASR Recommends:	RAC 5
HNC Safety:	RAC 5

6. **CURRENT STATUS:**

The U.S. Army Corps of Engineers, Rock Island District, completed the Archives Search Report for Two Rock Ranch Station in October 2003.

7. **STRATEGY:** NDAI (Areas A through E).

8. **ISSUES AND CONCERNS:**

The Huntsville Center Technical Advisory Group met and evaluated this ASR on 17 August 2004. The consensus was RAC 5.

9. **SCHEDULE SUMMARY:**

Phase	Orig. Start	Sch. Start	Actual Start	Orig. Comp.	Sch. Comp.	Actual Comp.

10. **FUNDING/BUDGET SUMMARY:**

Year	Phase	EXEC FOA	IN House Required	Contract Required	Funds Obligated

RISK ASSESSMENT PROCEDURES FOR MILITARY MUNITIONS RESPONSE PROJECTS

Property Name:	TWO ROCK RANCH STATION	Rater's Name:	Daniel Linehan
Property Location:	SONOMA/MARIN CO, CA	Phone Number:	(918) 420-8867
FUDS Property/Project #:	J09CA098300	District:	ROCK ISLAND
Property Type:	SMALL ARMS RANGES/ TRAINING AREA	Office Symbol:	SJMAC-ESM
Score:	5	Date Completed:	19 August 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 potential MMRP hazards identified for the project. The risk assessment evaluates two factors, hazard severity and hazard probability.

Part I - Hazard Severity. 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.

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)	0

What evidence do you have regarding conventional unexploded ordnance? Area was used for small arms training and on at least one occasion for gas mask training. Soil samples do not show actionable levels of lead and there is no present day evidence of MEC.

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)	0

What evidence do you have regarding pyrotechnics? NONE.

C. Bulk Explosives (HE) (not an integral part of conventional ordnance; un-containerized):

	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)	0

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)	0

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)	0

What evidence do you have regarding chemical or radiological? NONE.

TOTAL HAZARD SEVERITY VALUE (Sum of value A through E, maximum of 61) 0
Apply this value to Table 1 to determine Hazard Severity Category

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Property Name:
Project Number:
Property Type:

TABLE 1
HAZARD SEVERITY*

DESCRIPTION	CATEGORY	HAZARD SEVERITY VALUE
CATASTROPHIC	I ☐	21 and/or greater
CRITICAL	II ☐	10 to 20
MARGINAL	III ☐	5 to 9
NEGLIGIBLE	IV ☐	1 to 4
**NONE	V ☒	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.

PART II - Hazard Probability. 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 OE HAZARD (Check all that apply)

A. Locations of OE 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☒
Location (enter the single largest value checked)	2

What evidence do you have regarding the location of OE? No evidence of MEC.

B. Distance to nearest inhabited location/structure likely to be at risk from OE 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)	5

What are the nearest inhabited structures/buildings? The area is within the Salamander Canyon Nature Area.

C. Number(s) of building(s) within a 2-mile radius measured from the OE 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)	5

Narrative: Numerous installation buildings.

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)	5

Describe the types of buildings: Coast Guard housing and barrack buildings.

E. Accessibility to site refers to access by humans to ordnance and explosives. 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)	5

Describe the site accessibility: This area is used for Boy Scout activities and access is not separate from the rest of the installation.

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)	0

Describe the site dynamics: Further development of the nature area is unlikely.

TOTAL HAZARD PROBABILITY VALUE 22
(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.

TABLE 2
HAZARD PROBABILITY*

DESCRIPTION VALUE	LEVEL	HAZARD PROBABILITY
FREQUENT	A ☐	27 or greater
PROBABLE	B ☒	21 to 26
OCCASIONAL	C ☐	15 to 20
REMOTE	D ☐	8 to 14
IMPROBABLE	E ☐	less than 8

*Apply Hazard Probability Level to Table 3.

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

TABLE 3

PROBABILITY LEVEL	FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
SEVERITY CATEGORY:					
CATASTROPHIC I	1 ☐	1 ☐	2 ☐	3 ☐	4 ☐
CRITICAL II	1 ☐	2 ☐	3 ☐	4 ☐	4 ☐
MARGINAL III	2 ☐	3 ☐	4 ☐	4 ☐	4 ☐
NEGLIGIBLE IV	3 ☐	4 ☐	4 ☐	4 ☐	4 ☐

None (V) = RAC 5 ☒

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.

PART IV - Narrative. Summarize the documented evidence that supports this risk assessment. If no documented evidence was available, explain all the assumptions that you made.
This area contained a 1000 inch small arms range, skeet range, training villiage,and small arms storage. There is evidence the back stop area was used as a construction borrow pit after closure. Gas mask training only included the use of heating CS pellets. There is no visible evidence of a current day MEC presence and soil sampling has shown no elevated lead levels. Recommend a RAC score of 5.

RISK ASSESSMENT PROCEDURES FOR MILITARY MUNITIONS RESPONSE PROJECTS

Property Name:	TWO ROCK RANCH STA	Rater's Name:	Ron Thornhill
Property Location:	SONOMA/MARIN CO, CA	Phone Number:	(918) 420-8395
FUDS Property/Project #:	J09CA098300	District:	ROCK ISLAND
Property Type:	SMALL ARMS RANGE AREA A	Office Symbol:	SJMAC-ESM
Score:	5	Date Completed:	07 July 2004

RISK ASSESSMENT:

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Part I - Hazard Severity. 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.

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)	0

What evidence do you have regarding conventional unexploded ordnance? Area was ysed as a small arms range and on at least one occasion for gas mask training. Soil samples do not show actionable levels of lead and there is no present day evidence of MEC.

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)	0

What evidence do you have regarding pyrotechnics? NONE.

C. Bulk Explosives (HE) (not an integral part of conventional ordnance; un-containerized):

	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)	0

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)	0

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)	0

What evidence do you have regarding chemical or radiological? NONE.

TOTAL HAZARD SEVERITY VALUE (Sum of value A through E, maximum of 61) 0
Apply this value to Table 1 to determine Hazard Severity Category

---

TABLE 1
HAZARD SEVERITY*

DESCRIPTION	CATEGORY	HAZARD SEVERITY VALUE
CATASTROPHIC	I ☐	21 and/or greater
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MARGINAL	III ☐	5 to 9
NEGLIGIBLE	IV ☐	1 to 4
**NONE	V ☒	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.

PART II - Hazard Probability. 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 OE HAZARD (Check all that apply)

A. Locations of OE 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 ☒
Location (enter the single largest value checked)	2

What evidence do you have regarding the location of OE? No evidence of MEC.

B. Distance to nearest inhabited location/structure likely to be at risk from OE 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)	5

What are the nearest inhabited structures/buildings? The area is within the Salamander Canyon Nature Area.

C. Number(s) of building(s) within a 2-mile radius measured from the OE 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)	5

Narrative: Numerous installation buildings.

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)	5

Describe the types of buildings: Coast Guard housing and barrack buildings.

E. Accessibility to site refers to access by humans to ordnance and explosives. 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)	5

Describe the site accessibility: This area is used for Boy Scout activities and access is not separate from the rest of the installation.

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)	0

Describe the site dynamics: Further development of the nature area is unlikely.

TOTAL HAZARD PROBABILITY VALUE 22

(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.

TABLE 2
HAZARD PROBABILITY*

DESCRIPTION VALUE	LEVEL	HAZARD PROBABILITY
FREQUENT	A ☐	27 or greater
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*Apply Hazard Probability Level to Table 3.

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

TABLE 3

PROBABILITY LEVEL		FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
SEVERITY CATEGORY:						
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CRITICAL	II	1 ☐	2 ☐	3 ☐	4 ☐	4 ☐
MARGINAL	III	2 ☐	3 ☐	4 ☐	4 ☐	4 ☐
NEGLIGIBLE	IV	3 ☐	4 ☐	4 ☐	4 ☐	4 ☐

None (V) = RAC 5 ☒

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.

PART IV - Narrative. Summarize the documented evidence that supports this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

This area contained a 1000 inch small arms range. There is evidence the back stop area was used as a construction borrow pit after closure. Gas mask training only included the use of heating CS pellets. There is no visible evidence of a current day MEC presence and soil sampling has shown no elevated lead levels. Recommend a RAC score of 5.

RISK ASSESSMENT PROCEDURES FOR MILITARY MUNITIONS RESPONSE PROJECTS

Property Name:	TWO ROCK RANCH STA	Rater's Name:	Ron Thornhill
Property Location:	SONOMA/MARIN CO, CA	Phone Number:	(918) 420-8395
FUDS Property/Project #:	J09CA098300	District:	ROCK ISLAND
Property Type:	SMALL ARMS MAG AREA B	Office Symbol:	SJMAC-ESM
Score:	5	Date Completed:	07 July 2004

RISK ASSESSMENT:

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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)	0

What evidence do you have regarding conventional unexploded ordnance? This area was used to store small arms ammunition. There is no present day evidence of MEC.

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)	0

What evidence do you have regarding pyrotechnics? NONE.

C. Bulk Explosives (HE) (not an integral part of conventional ordnance; un-containerized):

	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)	0

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)	0

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)	0

What evidence do you have regarding chemical or radiological? NONE.

TOTAL HAZARD SEVERITY VALUE (Sum of value A through E, maximum of 61) 0
Apply this value to Table 1 to determine Hazard Severity Category

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TABLE 1
HAZARD SEVERITY*

DESCRIPTION	CATEGORY	HAZARD SEVERITY VALUE
CATASTROPHIC	I ☐	21 and/or greater
CRITICAL	II ☐	10 to 20
MARGINAL	III ☐	5 to 9
NEGLIGIBLE	IV ☐	1 to 4
**NONE	V ☒	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.

PART II - Hazard Probability. 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 OE HAZARD (Check all that apply)

A. Locations of OE 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 ☒
Location (enter the single largest value checked)	2

What evidence do you have regarding the location of OE? No evidence of MEC.

Property Name:
Project Number:
Property Type:

B. Distance to nearest inhabited location/structure likely to be at risk from OE 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)	5

What are the nearest inhabited structures/buildings? Public school, private residence, Coast Guard administrative buildings, housing and barracks.

C. Number(s) of building(s) within a 2-mile radius measured from the OE 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)	5

Narrative: Numerous private, public and installation buildings.

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)	5

Describe the types of buildings: Public school, private residence and Coast Guard housing, training facilities and barracks.

E. Accessibility to site refers to access by humans to ordnance and explosives. 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)	5

Describe the site accessibility: No barriers exist.

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)	5

Describe the site dynamics: The number of students and facilites at TRACEN Petaluma is expected to double in the next four years.

TOTAL HAZARD PROBABILITY VALUE 27
(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.

TABLE 2
HAZARD PROBABILITY*

DESCRIPTION VALUE	LEVEL	HAZARD PROBABILITY
FREQUENT	A ☒	27 or greater
PROBABLE	B ☐	21 to 26
OCCASIONAL	C ☐	15 to 20
REMOTE	D ☐	8 to 14
IMPROBABLE	E ☐	less than 8

*Apply Hazard Probability Level to Table 3.

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

TABLE 3

PROBABILITY LEVEL		FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
SEVERITY CATEGORY:						
CATASTROPHIC	I	1 ☐	1 ☐	2 ☐	3 ■	4 ☐
CRITICAL	II	1 ☐	2 ☐	3 ☐	4 ☐	4 ☐
MARGINAL	III	2 ☐	3 ☐	4 ☐	4 ☐	4 ☐
NEGLIGIBLE	IV	3 ☐	4 ☐	4 ☐	4 ☐	4 ☐

None (V) = RAC 5 ☒

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.

PART IV - Narrative. Summarize the documented evidence that supports this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

There is no history of MEC usage or storage in this area. No discoveries of MEC have been made in this area. Recommend a RAC score of 5.

RISK ASSESSMENT PROCEDURES FOR MILITARY MUNITIONS RESPONSE PROJECTS

Property Name:	TWO ROCK RANCH STA	Rater's Name:	Ron Thornhill
Property Location:	SONOMA/MARIN CO, CA	Phone Number:	(918) 420-8395
FUDS Property/Project #:	J09CA098300	District:	ROCK ISLAND
Property Type:	VIETNAM VILLAGE AREA C	Office Symbol:	SJMAC-ESM
Score:	5	Date Completed:	07 July 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 potential MMRP hazards identified for the project. The risk assessment evaluates two factors, hazard severity and hazard probability.

Part I - Hazard Severity. 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.

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)	0

What evidence do you have regarding conventional unexploded ordnance? Interviews suggest that only blank small arms ammunition was used in this area. There is no present day evidence of MEC.

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)	0

What evidence do you have regarding pyrotechnics? NONE.

C. Bulk Explosives (HE) (not an integral part of conventional ordnance; un-containerized):

	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)	0

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)	0

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)	0

What evidence do you have regarding chemical or radiological? NONE.

TOTAL HAZARD SEVERITY VALUE (Sum of value A through E, maximum of 61) 0
Apply this value to Table 1 to determine Hazard Severity Category

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TABLE 1
HAZARD SEVERITY*

DESCRIPTION	CATEGORY	HAZARD SEVERITY VALUE
CATASTROPHIC	I ☐	21 and/or greater
CRITICAL	II ☐	10 to 20
MARGINAL	III ☐	5 to 9
NEGLIGIBLE	IV ☐	1 to 4
**NONE	V ☒	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.

PART II - Hazard Probability. 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 OE HAZARD (Check all that apply)

A. Locations of OE 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 ☒
Location (enter the single largest value checked)	2

What evidence do you have regarding the location of OE? No evidence of MEC.

B. Distance to nearest inhabited location/structure likely to be at risk from OE 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)	5

What are the nearest inhabited structures/buildings? The area is within the Salamander Canyon Nature Area.

C. Number(s) of building(s) within a 2-mile radius measured from the OE 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)	5

Narrative: Numerous installation buildings.

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)	5

Describe the types of buildings: Coast Guard housing, training facilities and barracks.

E. Accessibility to site refers to access by humans to ordnance and explosives. 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)	5

Describe the site accessibility: This area is used as an argicultural out lease.

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)	0

Describe the site dynamics: Further development of the nature area is unlikely.

TOTAL HAZARD PROBABILITY VALUE 22
(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.

TABLE 2
HAZARD PROBABILITY*

DESCRIPTION VALUE	LEVEL	HAZARD PROBABILITY
FREQUENT	A ☐	27 or greater
PROBABLE	B ☒	21 to 26
OCCASIONAL	C ☐	15 to 20
REMOTE	D ☐	8 to 14
IMPROBABLE	E ☐	less than 8

*Apply Hazard Probability Level to Table 3.

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

TABLE 3

PROBABILITY LEVEL		FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
SEVERITY CATEGORY:						
CATASTROPHIC	I	1 ☐	1 ☐	2 ☐	3 ☐	4 ☐
CRITICAL	II	1 ☐	2 ☐	3 ☐	4 ☐	4 ☐
MARGINAL	III	2 ☐	3 ☐	4 ☐	4 ☐	4 ☐
NEGLIGIBLE	IV	3 ☐	4 ☐	4 ☐	4 ☐	4 ☐

None (V) = RAC 5 ☒

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.

PART IV - Narrative. Summarize the documented evidence that supports this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

The ammunition storage buildings were razed by the Coast Guard more than a decade after transfer. The landfill had closed prior to transfer and has been remediated. There is no evidence of a current day MEC presence. Recommend a RAC score of 5.

RISK ASSESSMENT PROCEDURES FOR MILITARY MUNITIONS RESPONSE PROJECTS

Property Name:	TWO ROCK RANCH STA	Rater's Name:	Ron Thornhill
Property Location:	SONOMA/MARIN CO, CA	Phone Number:	(918) 420-8395
FUDS Property/Project #:	J09CA098300	District:	ROCK ISLAND
Property Type:	SKEET RANGE AREA D	Office Symbol:	SJMAC-ESM
Score:	5	Date Completed:	07 July 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 potential MMRP hazards identified for the project. The risk assessment evaluates two factors, hazard severity and hazard probability.

Part 1 - Hazard Severity. 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.

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)	0

What evidence do you have regarding conventional unexploded ordnance? This is still an active skeet range.

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)	0

What evidence do you have regarding pyrotechnics? NONE.

C. Bulk Explosives (HE) (not an integral part of conventional ordnance; un-containerized):

	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)	0

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)	0

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)	0

What evidence do you have regarding chemical or radiological? NONE.

TOTAL HAZARD SEVERITY VALUE (Sum of value A through E, maximum of 61) 0
Apply this value to Table 1 to determine Hazard Severity Category

---

TABLE 1
HAZARD SEVERITY*

DESCRIPTION	CATEGORY	HAZARD SEVERITY VALUE
CATASTROPHIC	I ☐	21 and/or greater
CRITICAL	II ☐	10 to 20
MARGINAL	III ☐	5 to 9
NEGLIGIBLE	IV ☐	1 to 4
**NONE	V ☒	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.

PART II - Hazard Probability. 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 OE HAZARD (Check all that apply)

A. Locations of OE 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☒
Location (enter the single largest value checked)	2

What evidence do you have regarding the location of OE? No evidence of MEC.

B. Distance to nearest inhabited location/structure likely to be at risk from OE 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)	5

What are the nearest inhabited structures/buildings? The area is adjacent to the border of TRACEN Petaluma.

C. Number(s) of building(s) within a 2-mile radius measured from the OE 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)	5

Narrative: Numerous installation buildings.

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)	5

Describe the types of buildings: Coast Guard housing, training facilities and barracks.

E. Accessibility to site refers to access by humans to ordnance and explosives. 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)	5

Describe the site accessibility: This area is a eucalyptus tree grove between the TRACEN Petaluma fence and a golf driving range.

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)	0

Describe the site dynamics: Further development of the area is unlikely.

TOTAL HAZARD PROBABILITY VALUE 22
(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.

TABLE 2
HAZARD PROBABILITY*

DESCRIPTION VALUE	LEVEL	HAZARD PROBABILITY
FREQUENT	A ☐	27 or greater
PROBABLE	B ☒	21 to 26
OCCASIONAL	C ☐	15 to 20
REMOTE	D ☐	8 to 14
IMPROBABLE	E ☐	less than 8

*Apply Hazard Probability Level to Table 3.

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

TABLE 3

PROBABILITY LEVEL	FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
SEVERITY CATEGORY:					
CATASTROPHIC I	1 ☐	1 ☐	2 ☐	3 ☐	4 ☐
CRITICAL II	1 ☐	2 ☐	3 ☐	4 ☐	4 ☐
MARGINAL III	2 ☐	3 ☐	4 ☐	4 ☐	4 ☐
NEGLIGIBLE IV	3 ☐	4 ☐	4 ☐	4 ☐	4 ☐

None (V) = RAC 5 ☒

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.

PART IV - Narrative. Summarize the documented evidence that supports this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

The ammunition used in this area, according to interviews, was blank small arms ammunition. There is no evidence of a current day MEC presence. Recommend a RAC score of 5.

Property Name:
Project Number:
Property Type:

RISK ASSESSMENT PROCEDURES FOR MILITARY MUNITIONS RESPONSE PROJECTS

Property Name:	TWO ROCK RANCH STA	Rater's Name:	Ron Thornhill
Property Location:	SONOMA/MARIN CO, CA	Phone Number:	(918) 420-8395
FUDS Property/Project #:	J09CA098300	District:	ROCK ISLAND
Property Type:	ANTENNA FIELD/ CANTONMENT AREA E	Office Symbol:	SJMAC-ESM
Score:	5	Date Completed:	07 July 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 potential MMRP hazards identified for the project. The risk assessment evaluates two factors, hazard severity and hazard probability.

Part I - Hazard Severity. 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.

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)	0

What evidence do you have regarding conventional unexploded ordnance? This is no history or evidence of MEC usage, storage or disposal in this area.

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)	0

What evidence do you have regarding pyrotechnics? NONE.

C. Bulk Explosives (HE) (not an integral part of conventional ordnance; un-containerized):

	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)	0

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)	0

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)	0

What evidence do you have regarding chemical or radiological? NONE.

TOTAL HAZARD SEVERITY VALUE (Sum of value A through E, maximum of 61) 0
Apply this value to Table 1 to determine Hazard Severity Category

---

TABLE 1
HAZARD SEVERITY*

DESCRIPTION	CATEGORY	HAZARD SEVERITY VALUE
CATASTROPHIC	I ☐	21 and/or greater
CRITICAL	II ☐	10 to 20
MARGINAL	III ☐	5 to 9
NEGLIGIBLE	IV ☐	1 to 4
**NONE	V ☒	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.

PART II - Hazard Probability. 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 OE HAZARD (Check all that apply)

A. Locations of OE 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 ☒
Location (enter the single largest value checked)	2

What evidence do you have regarding the location of OE? No evidence of MEC.

B. Distance to nearest inhabited location/structure likely to be at risk from OE 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)	5

What are the nearest inhabited structures/buildings? The trap houses.

C. Number(s) of building(s) within a 2-mile radius measured from the OE 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)	5

Narrative: Numerous installation buildings.

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)	5

Describe the types of buildings: Coast Guard housing, training facilities and barracks.

E. Accessibility to site refers to access by humans to ordnance and explosives. 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)	5

Describe the site accessibility: This area is an active recreational skeet range. Access is not separate from the rest of TRACEN Petaluma.

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)	0

Describe the site dynamics: Further development of the area is unlikely.

TOTAL HAZARD PROBABILITY VALUE 22
(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.

TABLE 2
HAZARD PROBABILITY*

DESCRIPTION VALUE	LEVEL	HAZARD PROBABILITY
FREQUENT	A ☐	27 or greater
PROBABLE	B ☒	21 to 26
OCCASIONAL	C ☐	15 to 20
REMOTE	D ☐	8 to 14
IMPROBABLE	E ☐	less than 8

*Apply Hazard Probability Level to Table 3.

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

TABLE 3

PROBABILITY LEVEL	FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
SEVERITY CATEGORY:					
CATASTROPHIC I	1 ☐	1 ☐	2 ☐	3 ☐	4 ☐
CRITICAL II	1 ☐	2 ☐	3 ☐	4 ☐	4 ☐
MARGINAL III	2 ☐	3 ☐	4 ☐	4 ☐	4 ☐
NEGLIGIBLE IV	3 ☐	4 ☐	4 ☐	4 ☐	4 ☐

None (V) = RAC 5 ☒

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.

PART IV - Narrative. Summarize the documented evidence that supports this risk assessment. If no documented evidence was available, explain all the assumptions that you made.
This skeet range is still an active range. Recommend a RAC score of 5.

Property Name:
Project Number:
Property Type:

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
FOR
FORMERLY USED DEFENSE SITES

FINDINGS

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR TWO ROCK RANCH STATION SONOMA AND MARIN COUNTIES, CALIFORNIA PROJECT NUMBER J09CA098303

October 2003

Prepared For

U.S. Army Corps of Engineers
Engineering and Support
Center, Huntsville
ATTN:CEHNC-OE
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Prepared By

U.S. Army Corps of Engineers
Rock Island District
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P.O. Box 2004
Rock Island, Illinois 61204-2004

EXECUTIVE SUMMARRY

The former Two Rock Ranch Station is located approximately 10 miles northwest of the city of Petaluma in Sonoma and Marin Counties, California. The majority of the site is currently known as U.S. Coast guard Training Center (TRACEN) Petaluma. An elementary school, a private ranch, and an undeveloped grazing tract make up the remainder for a total of 876.41 acres.

Two Rock Ranch Station was established on 7 August 1942 as a signal intelligence monitoring center. It continued in this capacity until being closed on 30 June 1971. On 29 July 1971 all lands still in the possession of the Federal government were transferred to the U. S. Coast Guard.

Ordnance activities seem to have been limited to recreational small arms firing with the exception of blank firing in a mock 'Vietnam Village' during the late 1960s. There is no historical or current evidence of a possible ordnance presence from Department of Defense (DoD) anywhere on the site. No further DoD action in regards to ordnance and explosives is recommended for this site.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

ACKNOWLEDGMENTS

The following persons provided support as indicated.

Function	Name	Title	Organization	Telephone
On-Site Assessment	Joe W. Vann III*	UXO Safety Specialist	CEMVR-ED-DO	(309)794-5163
	Chris Churney	Chemical Engineer	CEMVR-ED-DO	(309)794-5465
Engineering Support	Robert E. Hoffman	Environmental Engineer	CEMVR-ED-DO	(309)794-5504
Historical Research	Thomas Reinhardt	Quality Assurance Specialist (Ammunition Surveillance)	CEMVR-ED-DO	(309)794-5225
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* Team Leader

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

FINDINGS

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

TABLE OF CONTENTS (continued)

TABLES

REPORT PLATES

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

1. INTRODUCTION

a. 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 Environmental Protection Agency (EPA) issued a revised National Contingency Plan. Under 40 C.F.R. 300.120, EPA designated the Department of Defense (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.

b. Subject and Purpose

(1) This report presents the findings of a historical records search and site inspection for ordnance and explosives (OE) for the former Two Rock Ranch Station. The investigation was performed under the authority of the Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP FUDS).

(2) The investigation focused on 876.41 acres in Sonoma and Marin Counties, California, formerly comprising the Two Rock Ranch Station.

(3) The purpose of this investigation was to characterize the site for potential OE presence to include conventional ammunition and chemical warfare materiel (CWM). Experienced ordnance experts through thorough evaluation of historical records, interviews, and on-site visual inspection results conducted the investigation.

c. Scope

(1) This report presents the site history, site description, real estate ownership information, and confirmed ordnance presence (prior to and after site closure), based on available records, interviews, site inspections, and analyses. The analyses provide a complete evaluation of all information to assess current day potential ordnance presence where actual ordnance presence has not been confirmed.

(2) For the purpose of this report, OE presence consists of live ammunition, live ammunition components, Chemical Warfare Materiel (CWM) or explosives that have been lost, abandoned, discarded, buried, fired, or thrown from demolition pits or burning pads. These items were manufactured, purchased, stored, used, and/or disposed of by the War Department/Department of Defense. Such ammunition/components are no longer under accountable record control of any DoD organization or activity.

(3) **Expended** small arms ammunition (caliber .50 or smaller) is **not** considered OE presence. OE further includes "explosive soil" that refers to any mixture in soil, sands, clays, etc., such that the mixture itself is explosive. Generally, 10 percent or more by weight of explosives in a soil mixture is considered explosive soil.

2. PREVIOUS INVESTIGATIONS

a. Corps of Engineers Documents

The Sacramento District prepared a DERP FUDS Inventory Project Report (INPR) for Two Rock Ranch Station on 7 December 1994 and revised it on December 1995 (document E-16). This INPR consists of a site survey summary sheet, a Findings and Determination of Eligibility (FDE), and project summary sheets for three separate projects.

TABLE 2-1 DERP FUDS PRELIMINARY ASSESSMENT PROJECTS				
Project Number	DERP Category	Present Phase	Comments	Location
J09CA098301	HTRW	SI	Investigate Landfill/burn site Remove sand from indoor range Investigate Sump	Landfill Building #539 Indoor Range
J09CA098302	CON/HTRW	SI	Investigate for UST	Building #539
J09CA098303	OE	SI	Buried small arms ammunition	Building #539 and #540

b. **Other Reports**

(1) A groundwater monitoring report was prepared for the Coast Guard in June 1999. This report determined there was no groundwater contamination detected from the former Army landfill (document E-17).

(2) A programmatic environmental assessment of U.S. Coast Guard Training Center (TRACEN) Petaluma was completed in August 1999. According to this report, there are no sensitive species, or significant historical/cultural sites present (reference B-55).

3. SITE DESCRIPTION

a. **Existing Land Usage**

(1) The majority of the land formerly comprising Two Rock Ranch Station is under the jurisdiction of the Department of Homeland Defense (DHD). It is currently a U.S. Coast Guard facility known as TRACEN Petaluma. A relatively small portion of the site is developed into barracks, classrooms, family housing, administrative buildings and recreational facilities while the remainder is used as agricultural out leases (map G-10). All areas of ordnance concern occur within this tract (photographs K-1 through K-11). A separate tract of 8.68 acres, which formerly contained drinking water wells, now contains a pumping station with the remainder leased for grazing (photographs K-15 and K-16).

(2) Of the remaining acreage formerly occupied by Two Rock Ranch Station, 13.92 acres are occupied by the Two

Rock Union Elementary School (photograph K-14), 31.00 acres are a farm owned by Robert C. Smith (photograph K-13), and the remaining 35.37-acre tract is undeveloped grazing land owned by Heather Babb (photograph K-12).

TABLE 3-1
CURRENT LAND USAGE

Project Area	Former Usage	Present Owner	Present Usage	Size/ Acres	Comments
A	Small arms Range	DHD	Nature Area	0.60	See Plate 3
B	Small Arms Magazines and Landfill	DHD	Agriculture	2.20	See Plate 3
C	Vietnam Village	DHD	Undeveloped	2.50	See Plate 3
D	Skeet Range	DHD	Skeet Range	12.00	See Plate 3
E	Remaining Lands	DHD	TRACEN Petaluma	778.82	See Plate 3
		Two Rock Union School District	Elementary School	13.92	
		Robert C. Smith	Home and Farm	31.00	
		Heather Babb	Pasture	35.37	
Total approximate acreage				876.41	

b. **Climatic Data**

(1) Temperatures in summer can occasionally exceed 100 degrees Fahrenheit but is generally mild and moderated by night and morning coastal fog. Temperatures below freezing in winter are extremely rare. The average annual maximum temperature is 72.2 degrees Fahrenheit while the minimum is 43.0 degrees Fahrenheit.

(2) Most of the precipitation comes within the six colder months of the year and only light amounts are reported during the rest of the year. The rainy season usually begins in September and peaks in January with an annual average of 29.95 inches. Thunderstorms, frost, and other forms of extreme weather are exceedingly rare. Winds are fairly light most of time, though they blow rather persistently in summer (references B-57 and B-58).

c. **Topography**

(1) Prior to government acquisition, the property consisted of working sheep and cattle ranches and maintains many of the same characteristics. The western portion of the site is rolling hills and where developed contains only

ornamental vegetation. The undeveloped hilly areas are grown over with both native and imported trees and vegetation.

(2) Those areas flat enough to till are used to grow hay and forage. The lowest areas mainly in the eastern portion of the site retain moisture throughout the year due to bedrock being fairly shallow.

d. **Geology and Soils**

(1) Two geologic formations, the Franciscan and the Wilson Grove, underlie the site. The Franciscan formation, of Mesozoic age, is the older. It consists of a mixture of rock masses in a sheared, shaley matrix and is fractured and faulted. These rocks are found mostly at lower elevations. The Wilson Grove is of Pliocene age. It is mostly marine sediments consisting of sandstones, limestone concretions, and tuffs. These rocks make up the largest part of the area and are found at the higher elevations (reference B-59).

(2) Over fifty percent of the site, the eastern flood plain, is classified as Blucher Series fine sandy loam. The surface layer of this soil is stratified with thin layers of loam or light clay loam, and it is gray or brown in color. This soil is on fans at lower elevations, and is subject to flooding by runoff. This Blucher soil remains wet long after the rainy season. Within the Blucher soil are two benches of Sebastopol Series soil. This soil is formed of well-drained sandy loams that have clay subsoil and are formed from soft sandstone.

(3) The remainder of the site is composed of Steinbeck Series soil. This consists of moderately well-drained loams that have a subsoil of mainly clay loam. These undulating, gently sloping to steep soils are on dissected marine terraces. They are underlain, at a depth of 20 to more than 60 inches, by weakly to moderately consolidated sandstone and shale (references B-57 and B-58).

e. **Hydrology**

(1) The subject property is a part of the Stemple Creek Watershed. The South Branch Stemple Creek extends through the site flowing to the northwest. Stemple Creek flows westward through the watershed to its estuary, the Estaro de San Antonio. The Estaro empties into Bodega Bay, a broad indentation in the Pacific Coast. The Estaro is an important coastal resource and is included in the Gulf of the Farrallones National Marine Sanctuary (reference B-59).

(2) No active wells are located on the property. All drinking water is obtained from surface impoundments owned by the City of Petaluma.

f. **Natural Resources**

No sensitive species are known to be present on the site. Sensitive species are those that are listed by the U.S. Fish and Wildlife Service and by the California Department of Fish and Game (CDFG) as endangered, threatened, proposed for endangered or threatened status, candidate species for endangered or threatened status, or species of concern. Also included as sensitive species are those plants listed by the California Native Plant Society and species of special concern to the CDFG (reference B-55).

g. **Historical/Cultural Resources and Demographics**

(1) A 1977 cultural resources evaluation located two prehistoric sites, a temporary aboriginal camp and a quarry. This report recommended that the sites be considered for nomination to the National Register of Historic Places (NRHP). During preparation of the environmental assessment for TRACEN Petaluma's master plan, the Coast Guard and the State Historic Preservation Officer (SHPO) determined that the sites were too heavily disturbed to retain any NRHP significance (reference B-55).

(2) A historic properties evaluation was conducted in 1999 to determine the status of several buildings and remains of buildings at TRACEN Petaluma. None of the resources at the site that are 45 years old or older were found to individually meet NRHP criteria. Furthermore, it was determined that there is no historical district at the sites because many of the buildings related to World War II or Cold War contexts have been removed or irreversibly altered (reference B-55).

(3) The City of Petaluma, the nearest population center, has a population of 54,548 and is expected to grow to 63,210 by the year 2005 (reference B-56). TRACEN Petaluma has a staff and student population of about 400. This is expected to double within the next seven years (interview H-11).

4. HISTORICAL SITE SUMMARY

a. **Chronological Site Summary**

(1) On 7 August 1942, Two Rock Ranch Station was established as a primary monitoring station under the command of the Chief Signal Officer (document E-2). The area had been

dairy and poultry farms prior to War Department purchase of the nine tracts. The first contingent of troops to occupy the installation included two (2) officers and 45 enlisted men from Fort Monmouth, New Jersey, who arrived in October 1942. The only billeting consisted of tents while the former ranch houses were converted for use as administrative and operational facilities (document E-10, photographs F-2 and F-3).

(2) The primary mission of Two Rock Ranch Station was the interception of enemy radio transmissions with a secondary mission of training radio operators for service in the Pacific Theater. By 9 April 1943, 23 buildings had been constructed and the number of personnel assigned had been increased from 200 to 521 men (document E-4). All buildings were camouflaged to give the appearance from the air that the installation was nothing more than a working ranch. A haystack covered the water tower, furrows were plowed and planted, and an artificial cow made of feathers over a wire frame was placed in a pen (documents E-5 and E-12, photographs F-1 and F-5).

(3) In October of 1943, a contingent of approximately 100 Women's Army Corps (WAC) personnel was assigned as radio operators. These personnel stayed until the end of the war (documents E-5 and E-12, photograph F-4).

(4) At the end of World War II, Two Rock Ranch Station was redesignated as a special installation under the command of the Army Security Agency (ASA). The mission of monitoring radio transmissions for intelligence purposes remained the same. An ambitious program of modernization was begun wherein most of the original ranch buildings and World War II structures were replaced by more modern, permanent structures (documents E-10 and E-12, photograph F-6).

(5) On 25 April 1947, a tract containing 35.37 acres was transferred from the War Department to the War Assets Administration (WAA). An additional 5.36 acres was quitclaimed to the Two Rock Union School District on 11 December 1951 (documents E-14, E-16, and map G-2).

(6) Advances in satellite technology eventually made the antenna fields at Two Rock Ranch Station obsolete and the installation was closed on 30 June 1971 (documents E-8, E-11, E-12, and E-16). On 29 July 1971, the Department of the Army transferred the remaining 835.68 acres to the U.S. Coast Guard (USCG), Department of Transportation (DOT) for use as a U.S. Coast Guard training center (document E-14). The USCG

also obtained the 35.37-acre tract that had been transferred to the WAA in 1947 (document E-16).

(7) In 1985, DOT conveyed two parcels consisting of 30.89 acres and 35.37 acres to private individuals. An additional 8.56-acre tract was deeded to the Two Rock Union School District (document E-16, E-18, E-19, E-20 and maps G-7, and G-9).

b. **Historic Military Munitions Usage**

(1) Due to the nature of the site, a radio receiving station, and the highly classified nature of the work performed, the use of military munitions on the site was extremely limited. During World War II those individuals assigned guard duty were issued small arms. These consisted of .45 caliber submachine guns and 12-guage shotguns (document E-5). Ammunition and weapons were stored and issued at the guardhouse (interview H-5). There were no ranges during this period.

(2) Sometime prior to 1952, two ranges consisting of a double skeet range and a 1,000-inch small arms range were constructed (map G-3). The double skeet range is still in use by the U.S. Coast Guard and is ineligible for projects under the FUDS program. The small arms range was recreational in nature and was also used with M1 carbines by Boy Scouts (interview H-11). This range continued in use until at least 1961 (map B-28). Qualification for record was not performed at Two Rock Ranch Station but at other military facilities in the San Francisco Bay area (document E-9, interviews H-4 and H-6).

(3) Two magazines, buildings 539 and 540, were constructed in 1968. These were identified as ready magazine and a fixed ammunition magazine (document E-15). These two magazines were used to store shotgun ammunition for the skeet range (interviews H-6 and H-7). Although the U.S. Coast Guard did not use these magazines, they continued to exist at least until 1984 (document E-16 and map G-5).

(4) An indoor pistol range was built in 1965. This range was identified as T831 on map G-5. The U.S. Coast Guard demolished this building in 1997 and the bullet trap was environmentally mitigated. No further action is contemplated for this site (interview H-11).

(5) A mock 'Vietnam Village' was constructed of local materials in the late 1960s. This mock village was used in a training course for ASA personnel in dealing with the

conditions in Vietnam. According to several eyewitness accounts, only blank small arms ammunition was used in these activities (document E-8, interviews H-6, H-7, H-8, and photograph F-8).

(6) On at least one occasion in 1966, gas mask training was conducted at Two Rocks Ranch Station (interview I-12). A collage of historical photographs in document E-12 shows a group of individuals in gas masks. While the exact location where this training occurred is unknown, and only one individual remembered such training occurring, the photograph in document E-12 of soldiers in gas masks appears to have been taken at the former 1,000-inch small arms range located in Salamander Canyon.

c. Other Potential Areas of Environmental Interest

No other eligible areas of potential environmental interest were noted.

d. Map Analysis

(1) Due to the classified nature of the site, few maps were available from the period when the site was under Army ownership. The only World War II era map is dated 19 April 1943 and only shows the buildings of the main post. The antenna fields are not shown (map G-1).

(2) Map G-2 is concerned only with the real estate acquisition and disposal for Two Rock Ranch Station. When this map was created on 19 October 1947, it can be seen that development was limited to the area shown in map G-1. This map shows the size of each tract obtained by the War Department and the date and entity to which the War Department and its successor the Department of Defense transferred the real estate.

(3) Map G-3, dated 15 September 1952 and revised to February 1959 shows several new developments in the area. The 1,000-inch small arms range is shown in section 7, while the skeet range is in section 6. The boundary of the antenna field is fenced with an interior perimeter road. The location of the landfill is shown in section 1. The magazines, indoor pistol range, and 'Vietnam Village' are not shown on this map, as they did not yet exist.

(4) Map G-4, dated 17 August 1961, shows the backstop of 1,000-inch small arms range has been used as a borrow pit. A trailer park and family quarters have been added north of the antenna field fence.

(5) Map G-5, dated 1 August 1969, shows the safety arcs for the two ammunition storage buildings and the skeet range. The small arms range in Salamander Canyon is no longer in evidence.

(6) A soils test locations map of TRACEN Petaluma dated 2 May 1984 shows the layout of the site almost thirteen years after transfer of the property. Although improvements made by the U.S. Coast Guard are not germane to this report, it does show several improvements made in the period between 1961 and 1971. Among these are the expanded skeet and trap range, the creation of an artificial lake and island, and the locations of the two ammunition storage buildings, buildings 539 and 540, and the indoor pistol range, building T831 (map G-6). The 1,000-inch small arms range is no longer in evidence and a 'Scout Hut' is at the former location. It was stated in the INPR that the Coast Guard never used the ammunition storage buildings and since they had been razed by the time of the INPR site visit and were adjacent to the landfill it was surmised that the possibility existed for buried ammunition (document E-16). Since the buildings were still standing thirteen years after the closure of Two Rock Ranch Station, this possibility is extremely unlikely.

(7) A May 1993 map of TRACEN Petaluma shows the conditions of the site at the time of the INPR. Buildings 539 and 540 are no longer in existence (map G-7).

(8) Maps G-8, G-9, and G-10 are current Sonoma and Marin County Tax Assessor's maps. The boundaries of the former Two Rock Ranch Station are shown in red.

(8) Map G-11 is a current map of TRACEN Petaluma. This map shows the layout at the time of the site visit for this report.

e. **Aerial Photo Interpretation**

(1) Photograph F-9, dated 19 July 1960, is the only available aerial photograph for study taken during the period that Two Rock Ranch was operational. Although the U.S. Department of Agriculture did perform aerial photography for conducting soil surveys, a search of their office revealed that only the individual photographs of the Two Rock Ranch Station were missing. It is believed that this was due to national security concerns.

(2) Photograph F-9 is labeled with all pertinent features. The borders of the site at the time the photograph was taken are shown in green with the county border in red. It should be noted that the 5.65-acre parcel at the intersection of King Road and Bodega Road is not shown.

f. **Interviews**

(1) Mr. Glenn Pylor served at Two Rock Ranch Station from September 1943 until January 1944. Mr. Pylor stated that there were no firing ranges at the station during this period. There was a military police detachment. Signal Corps personnel assigned to guard duty were issued M1911 .45 caliber pistols. The pistols and ammunition were stored and issued at the guardhouse and issued only for the shift of guard duty (interview H-5).

(2) Lieutenant-Colonel William F. Vernau, Jr. (retired) was the Sergeant Major for Two Rock Ranch Station from 1949 until 1952. LTC Vernau stated that during this period there were no ranges on the post. Weapons and ammunition used by the military police were stored in the guardhouse. Recreational bird hunting parties organized by the commanding officer, Colonel O'Mohundro, did the only firing of weapons. Military operations were confined to the monitoring of radio transmissions. LTC Vernau served a second tour of duty as commanding officer of Two Rock Ranch Station from 5 August 1968 until 19 September 1969. LTC Vernau stated that the only range in operation during this period was the recreational skeet and trap range. Ammunition for the military police was still stored in the guardhouse. The two ammunition storage buildings, 539 and 540, were constructed during this period. They were used only to store ammunition for the skeet range. A mock 'Vietnam Village', constructed for leadership training, was used for training with blank small arms ammunition. LTC Vernau recalls neither gas mask training nor an operational small arms range during his command (interview H-6).

(3) Mr. Don O'Mohundro and Mrs. June Studdert are the children of Colonel Wiley H. O'Mohundro, commanding officer of Two Rock Ranch Station from 11 July 1950 until 30 August 1954. Both confirmed that no firing of military weapons occurred during this period (interviews H-9 and H-10).

(4) Mr. James D. Ford was the non-commissioned officer in charge of operations for Two Rock Ranch Station from 1962 until 1963. Mr. Ford had no knowledge of any ranges on the site other than the skeet range and that the sole purpose of the installation was the monitoring of signal transmissions. Mr. Ford stated that the side arms carried by the military police detachment were the only weapons on the installation (interview H-2).

(5) Mr. C. David Strand, while attending the Defense Language Institute at the Presidio of Monterey in 1966, was required along with others in his class to

re-qualify with his gas mask. Mr. Strand stated that they were transported to Two Rock Ranch Station where they were required to don their gas masks and enter a canvas-covered structure. Inside the structure, a non-commissioned officer heated tear gas pellets on a tin can-covered candle. Mr. Strand stated that they must have used too many pellets, as their uniforms were totally saturated with the gas (interview H-12).

(6) Mr. Sheridan Melogy was stationed at Two Rock Ranch Station from 1966 to 1967. Mr. Melogy stated that the 'Vietnam Village' was used to conduct sweep and clear exercises during a leadership course. Only blank small arms ammunition was used during these exercises (interview H-8).

(7) Mr. Scott Forsythe, Mr. Eugene A. Ulbrickson, and Mr. Carl Smith all served at Two Rock Ranch Station for a short time in the 1968-69 time frame. Mr. Forsythe was present for one month for training prior to deployment to Vietnam. During this period received only classroom training and no one on the installation had weapons except for the side arms carried by the military police (interview H-1). Mr. Ulbrickson was assigned to temporary duty at Two Rocks Ranch Station monitoring signal transmissions for the Army Security Agency. Mr. Ulbrickson remembers a skeet range, but never fired any weapons himself (interview H-3). Mr. Smith was assigned to monitor electronic traffic in 1968 and 1969. He was also a member of the volunteer fire department. During the time he was present, Mr. Smith stated that all fire arms training was conducted at the Presidio of San Francisco (interview H-4).

(8) LTC Joseph F. Jewett, Jr. (retired) was the executive officer of Two Rock Ranch Station under LTC Vernau and commanding officer from 29 September 1969 until 21 August 1970. LTC Jewett's recollections of Two Rock Ranch Station correspond in every detail with that of LTC Vernau (interview H-7).

(9) Mr. Patrick Nelligan is the environmental protection specialist for TRACEN Petaluma, a position he has held since 1991. Mr. Nelligan acted as the point of contact and escort for the site visit and provided the team with documents and maps. According to Mr. Nelligan all FUDS related issues on TRACEN Petaluma have been identified and mitigated (interview H-11).

5. SITE ELIGIBILITY

a. **Confirmed FUDS**

A total of 876.41 acres were identified as eligible during the INPR. This ASR confirmed this acreage.

b. **Additional Confirmed FUDS Acreage**

No additional acreage was identified.

c. **Potential FUDS**

No Potential Formerly Used Defense Sites were identified.

6. VISUAL SITE INSPECTION

a. **General Procedures and Safety**

(1) On 26 June 2003, members of the site investigation (SI) team traveled to the former Two Rock Ranch Station located in Sonoma and Marin Counties, California. The primary purpose of the SI team was to assess the OE presence or potential of these areas. The inspection was limited to non-intrusive methods; e.g., subsurface sampling was not authorized nor performed.

(2) A site safety plan was developed and utilized by the SI team to assure safety from injury during the inspection of this site (appendix I). A safety briefing which stressed safety and that OE should only be handled by military EOD personnel was conducted prior to the inspection for all personnel attending the on-site inspection. Site safety was maintained at all times by the inspection team during the on-site inspection.

(3) Prior to the site visit, a thorough review of all available reports, historical documents, texts, and technical ordnance reference materials gathered during the historical records search portion of the ASR was made to ensure awareness of potential ordnance types and hazards.

(4) The site inspection consisted of a vehicle and foot search of the site. The primary focus of the site visit was to locate evidence of OE surface presence or a potential OE burial site.

b. **Site Inspection Synopsis**

(1) **Area A-Small Arms Range:** The former Small Arms Range is in an area now known as the Salamander Canyon Nature Area. This is an undeveloped portion of TRACEN Petaluma used mainly by Boy Scouts. There is no evidence of the former usage of the site and no evidence of ordnance or explosives was observed (appendix J, plate 3, photographs K-2, K-3, K-4, and K-5).

(2) **Area B-Magazines and Landfill:** The former Army landfill has been remediated and is now covered by a forage crop. There is no visible evidence of its former usage. The Coast Guard razed the two ammunition storage buildings several years after closure. Only a small concrete foundation of one building remains. No evidence of ordnance or explosives was observed. (appendix J, plate 3, photographs K-7, K-8, and K-9).

(3) **Area C-Vietnam Village:** This site is currently a mature eucalyptus grove between the TRACEN Petaluma driving range and the installation fence. There is no evidence of the former usage or of ordnance and explosives (appendix J, plate 3, photographs K-6 and K-7).

(4) **Area D-Skeet Range:** The Skeet Range is still an active range and was not evaluated (appendix J, plate 3, photographs K-10 and K-11).

(5) **Area E-Remaining Lands:** This area includes all of the lands currently comprising TRACEN Petaluma not previously mentioned, The Two Rock Union School, the Heather Babb property, and the Robert C. Smith property. The latter three all served as buffer areas between the installation boundary and any developed areas that would give an outsider a view of the installations operation. Prior to disposal they were used only as agricultural leases. These private properties were not entered but were photographed (photographs K-12, K-13, and K-14). The remainder of TRACEN Petaluma contains the barracks, administrative, school, utility, and recreational buildings. A separate detached parcel approximately five miles east of the main installation contains a pumping station in one corner while the remainder is leased as grazing land (photographs K-15 and K-16). There is no history of ordnance activities ever occurring in any of these areas while under DoD control, and no ordnance or explosives were observed.

7. SITE OE/CWM TECHNICAL DATA

a. **OE and CWM Ordnance**

Table 7-1 is a listing of ammunition and explosive fillers that were used or present at one time at Two Rock Ranch Station. Table 7-2 is a summary of site ordnance fillers that has been developed based on Table 7-1. These tables are based on review of historical documentation and specifications listed in Appendix D. Tables 7-1 and 7-2 do not indicate a current presence but are only a listing of

ordnance that had been present at the former Two Rock Ranch Station and are included for reference purposes only.

TABLE 7-1
AMMUNITION USED AND EXPLOSIVES/CHEMICAL FILLER

ITEM	MODEL/TYPE	FILLER/ WEIGHT	FUZE
Capsule	Training/ CS	CS/ 0.82 grams	None
Small Arms	Shell, Shotgun, 12 Gauge	None	None
	M1911/ .45 Caliber, Ball	None	None
	.30 Caliber Carbine, M1	None	None

TABLE 7-2
CHEMICAL DATA OF ORDNANCE FILLERS

Filler	Synonym(s)	Chemical Formula
CS	Ortho-chlorobenzylidene malono-nitrile Tear gas	$C_{10}H_5ClN_2$

8. EVALUATION OF ORDNANCE PRESENCE

a. **General Procedures**

(1) Each area was evaluated to determine confirmed, potential, or no ordnance presence. Confirmed Ordnance and Explosives (OE) presence is based on verifiable historical record evidence or direct witness of OE items (with explosive components and/or inert debris/fragments) since site closure. Additional field data is not needed to identify a confirmed site.

(a) Verifiable historical record evidence is based on OE items located on site since site closure and See Documented by: historical records (Archive Records, Preliminary Assessment Reports, Site Investigation Reports), local fire departments and law enforcement agencies/bomb squads, military Explosive Ordnance Disposal (EOD) Units, newspaper articles, photographs, or maps.

(b) Direct witness of OE items consists of the site inspection team(s) and other credible witnesses as determined by the ASR Team Leader (landowners, workers on-site, soldiers who served there, etc.) verifying that they have seen OE presence on the surface or subsurface since site closure.

(2) Potential OE presence is based on a lack of confirmed OE presence. Potential OE presence is inferred from

records, present day site features, non-verifiable direct witness, or indirect witness. Additional field data is needed to confirm potential OE sites.

(a) Inference from historical records is based on no OE items reported on site since site closure and would include documentation (records, aerial photographs, maps) indicating possible OE presence derived from common practice in production, storage, use, or disposal at that time and from records indicating known OE usage.

(b) Inference from present day site features would be the indication of possible OE presence from such obvious features as target circles, depressions, mounds/backstops, OB/OD areas/pits, etc.

(c) Indirect witness would be people who have stated that they have heard of OE presence on-site (hearsay evidence).

(3) No ordnance presence areas are based on a lack of confirmed or potential ordnance evidence. All historical records, evidence, and present day site inspections do not indicate confirmed or potential ordnance presence. There is no reasonable evidence, either direct or inferred, to suggest present day ordnance presence. Additional field data is not needed to assess no ordnance presence areas.

(4) No evidence was developed during the ASR or SI to suggest any weaponized CWM was ever present at the site.

b. **Area A: Small Arms Range**

This area was used as a 1,000-inch small arms range, Boy Scout firing of M1 carbines, and on at least one occasion for annual gas mask training. There is no apparent current day ordnance presence. At some time the impact area may have been used as a construction borrow area. Environmental testing of the soil has not shown a lead or antimony problem. **Area A is considered to have no ordnance presence.**

c. **Area B: Magazines and Landfill**

The empty ammunition storage buildings were razed several years after transfer of the property to the Coast Guard. According to interviews, the buildings themselves were not constructed until shortly before the landfill was closed and were used only for the storage of shotgun ammunition. The landfill itself has been tested, monitored, and

environmentally capped. The Sonoma County Solid Waste Agency has recommended a finding of no further action to the California Environmental Protection Agency. **Area B is considered to have no ordnance presence.**

d. **Area C: Vietnam Village**

Numerous interviews state that only blank small arms were ever used in training conducted at this site. There have been no reports of ordnance finds here or anywhere within the bounds of the former Two Rocks Ranch Station during the period of its operation or since disestablishment.

e. **Area D: Skeet Range**

As this is still an active range and has been used beneficially as such since the disestablishment of Two Rocks Ranch Station, it is ineligible for FUDS projects. **Area D was not evaluated for ordnance presence.**

f. **Area E: Remaining Lands**

There is no history of ordnance usage of any description in this area and no reports of discovery of ordnance since closure. **Area E is considered to have no ordnance presence.**

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR TWO ROCK RANCH STATION SONOMA AND MARIN COUNTIES, CALIFORNIA PROJECT NUMBER J09CA098303

APPENDIX A

REFERENCE SOURCES

REFERENCE SOURCES

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
	GOVERNMENT		
FEDERAL AGENCIES			
Department of Defense			
Defense Technical Information Center and Secure Stinet 8725 John J. Kingman Road Suite 0944 Fort Belvoir, VA 22060-6218	Computer Search (DTIC/STINET)	(703) 427-8274 (DTIC) (703) 767-8228 (STINET)	No Relevant Information
DoD Explosives Safety Board 2461 Eisenhower Ave. Alexandria, VA 22331-0600	Computer Search (DDESB)	(703) 325-1369	No Relevant Information
Army			
787th Ordnance Company (EOD) 385 Bushnell St Moffett Field, CA 94035	SFC Schmidt	(650) 603-8301 Fax 603-8305 DSN (359)	No responses to site.
U.S. Army Center Of Military History 103 Third Ave. Ft. Mcnair, DC 20319-5058	Staff	(202) 685-2733 DSN (325)	See Appendix B, Section II, Parts A and B
USACE, Office Of History Humphreys Engineer Center ATTN: CEHO-ZA 7701 Telegraph Road Alexandria, VA 22315-3865	Staff	(703) 428-6554	See Appendix B, Section II, Parts A and B
JMC History Office ATTN: AMSJM-PA (HISTORY) Bldg. 390 Rock Island, IL 61299	George Eaton	(309) 794-1450	No Relevant Information
Rock Island Arsenal Museum ATTN: SIORI-CFS-M Bldg. 60 Rock Island, IL 61299-5000	Chris Leinicke	(309) 782-5021 FAX 782-3598	Technical Manuals

REFERENCE SOURCES

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
	GOVERNMENT		
Army (cont.)			
U.S. Army SBCCOM ATTN: AMSSB-SCI-H 5232 Fleming Road APG, Aberdeen, MD 21010	Kathleen Ciolfi	(410) 436-4430 DSN 584-4430	No Relevant Information
U.S. Army Military History Institute Reference Library 22 Ashburn Drive Carlisle Barracks Carlisle, PA 17013-5008	Louise Frend	(717) 245-3103	No Relevant Information
U.S. Army Military History Institute Archives Branch 22 Ashburn Drive Carlisle Barracks Carlisle, PA 17013	David Keough	(717) 245-3189 DSN 242-3189	No Relevant Information
U.S. Army Military History Institute Photo Archives 22 Ashburn Drive Carlisle Barracks Carlisle, PA 17013-5008	Mike Winey	(717) 245-3434 DSN 242-3434	No Relevant Information
U.S. Army Ordnance Museum Bldg. 2601, Aberdeen Blvd APG, MD 21005-5201	Dr. Atwater	(410) 278-3602	No Relevant Information
USACE, Sacramento District ATTN: CESPK-ED-E 1325 J Street Sacramento, CA 95814-2922	Jerry Vincent	(916) 557-7452	INPR, FDE, PA, Real Estate Information
MANSCEN Library 597 Engineer Loop Bldg. 3202, Suite 200 Fort Leonard Wood, MO 65473-8928	Dr. Wright Base Historian	(573) 563-4109 DSN 676-4109	No Relevant Information

REFERENCE SOURCES

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
	GOVERNMENT		
Air Force			
(AFHRA) Air Force Historical Research Agency Research Divison 600 Chennault Circle Bldg 1405 Maxwell AFB, AL 36112-6424	Joe Caver	(334) 953-5834	No Relevant Information
(AFHRA) Air Force Historical Research Agency Information Systems Division 600 Chennault Cir, Bldg. 1405 Maxwell AFB, AL 36112-6424	IRIS System Sheila Roten IRIS Microfilm Essie Roberts	(334) 953-6884/2439 FAX 953-7428 DSN (493)	No Relevant Information
Air University Library 600 Chennault Cir., Bldg. 1405 Maxwell AFB, AL 36112-6424	Staff	(314) 953-2888 DSN 493	No Relevant Information
Navy			
Marine Corps Historical Center Washington Navy Yard 901 M St., SE Washington, DC 20374-5040	Staff	(202) 433-3447 DSN 288-3447	See Appendix B, Section II, Parts A and B
Naval Construction Battalion Center (NCBC) Technical Information Center ATTN: CODE 72 1100 23rd Ave. Port Hueneme, CA 93043	Brian Thompson	(805) 982-1124 DSN 551	No Relevant Information

REFERENCE SOURCES

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
	GOVERNMENT		
Navy (cont.)			
Naval Construction Battalion Center (NCBC) NAVFAC Historian Office CB Logistics Center, CODE 09 (BLDG 99) 4111 San Pedro Street Port Hueneme, CA 93043	Carol Marsh	(805) 982-5913/5563 DSN 551-5913	No Relevant Information
Naval Historical Center Washington Navy Yard Navy Department Library 901 M St., SE Washington, DC 20374-5060	Staff	(202) 433-4132 DSN 288-4132	See Appendix B, Section II, Parts A and B
Naval Historical Center Washington Navy Yard Naval Aviation History Branch 901 M St., SE Washington, DC 20374-5060	Staff	(202) 433-4407 DSN 288-4407	See Appendix B, Section II, Parts A and B
Naval Historical Center Washington Navy Yard Operational Archives 901 M St., SE Washington, DC 20374-5060	Staff	(202) 433-2833 DSN 288-2833	See Appendix B, Section II, Parts A and B
U.S. Naval War College Archives 686 Cushing Rd. Newport, RI 02841-1207	Dr. Evelyn Cherpack	(401) 841-2435	No Relevant Information
U.S. Naval War College Library 686 Cushing Rd. Newport, RI 02841-1207	Alice Juda Maggie Rauch	(401) 841-4551	No Relevant Information
U.S. Naval War College Museum 686 Cushing Rd. Newport, RI 02841-1207	Tony Nicolosi Bob Cembrola	(401) 841-4052	No Relevant Information

REFERENCE SOURCES

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
GOVERNMENT			
National Archives and Records Administration			
NARA-Archives I Old Military And Civil Textual Division Pennsylvania Ave. and 7th St Nw Washington, DC 20408	Staff	(202) 208-1903 (202) 219-6273 (202) 208-0370	See Appendix B, Section II, Parts A and B
National Archives, Archives II (Cartographic/Architectural) 8601 Adelphi Road College Park, MD 20740	Staff	(301) 713-7040	See Appendix B, Section II, Parts A and B
National Archives, Archives II (Motion Picture, Sound, And Video Branch) 8601 Adelphi Road College Park, MD 20740	Staff	(301) 713-7060	See Appendix B, Section II, Parts A and B
National Archives, Archives II (Still Picture Branch) 8601 Adelphi Road College Park, MD 20740	Staff	(301) 713-6660	See Appendix B, Section II, Parts A and B
National Archives, Archives II (Textual Branch) 8601 Adelphi Road College Park, MD 20740	Staff	(301) 713-7250	See Appendix B, Section II, Parts A and B
National Personnel Records Center 9700 Page Ave. St. Louis, MO 63132-5100	Wilson Sullivan John Daly	(314) 538-4085	See Appendix B, Section III, Parts A and B
NARA-Pacific Region (Laguna Niguel) 24000 Avila Road P.O. Box 6719 Laguna Niguel, CA 92607	Bill Doty Paul Wormser	(949) 360-2641 Fax 360-2624	See Appendix B, Section III, Parts A and B

REFERENCE SOURCES

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
GOVERNMENT			
National Archives and Records Administration (cont.)			
NARA-Pacific Region (San Francisco) 1000 Commodore Drive San Bruno, CA 94066-2350	John Hedger Kathleen O'Conner	(650) 876-9018 Fax 876-0920	See Appendix B, Section III, Parts A and B.
Washington National Records Center 4205 Suitland Road Suitland, MD 20409	Staff	(301) 457-7190	See Appendix B, Section III, Parts A and B
Library of Congress			
Library of Congress Geography And Map Division 101 Independence Avenue SE Washington, DC 20536	Staff	(202) 707-5522	See Appendix B, Section II, Parts A and B
Library of Congress Prints And Photographs Division 101 Independence Avenue SE Washington, DC 20540-4650	Staff	(202) 707-5000	See Appendix B, Section II, Parts A and B
Department of Agriculture			
USDA Consolidated Farm Service Agency 1301 Redwood Way, Suite 190 Petaluma, CA 94954	Staff	(707) 794-1242 Ext 2	No Relevant Information
USDA Natural Resource Conservation Service 1301 Redwood Way, Suite 170 Petaluma, CA 94954	John Gustafson	(707) 794-1242 Ext 3	No Relevant Information

REFERENCE SOURCES

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
		GOVERNMENT	
Department of the Interior			
NOAA National Climatic Data Center 151 Patton Avenue, Room 120 Asheville, NC 28801-5002	Staff	(828) 271-4800 Press 2 Fax 271-7627	Information on climatic data of California. Also provided "Local Climatological Data" from San Francisco.
U.S. Fish and Wildlife Service 2800 Cottage Way, Room W2605 Sacramento, CA 95825	Harry Mossman	(916) 414-6650	Status of Plants and Animals on Site.
Department of Homeland Defense			
USCG Training Center Petaluma 599 Tomale Road Petaluma, CA 94592	Patrick Nelligan	(707) 765-7225	Provide Maps, Photographs, Studies, and Interview
State			
California State Archives 1020 O Street Sacramento, CA 95814	Mr. Metzer	(916) 653-2246	No Relevant Information
California State Library California History Section 914 Capital Mall, Library and Courts Building Sacramento, CA 94237-0001	John Gonzales Sybille Zemitis	(916) 654-0176 Fax 654-8777	No Relevant Information
California State Historic Preservation Office San Bernardino Archaeological Information Center 2024 Orange Tree Lane Redland, CA 92374	Robin Laska	(909) 792-1497 Fax 798-8585	Historical, Cultural, and Archaeologcal Information
California State Library Government Publications Section 4201 Sierra Point Drive Suite 112 Sacramento, CA 95834	Internet	(916) 654-0069 Fax 653-6114	No Relevant Information

REFERENCE SOURCES

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
	GOVERNMENT		
State (cont.)			
California Military Museum 1119 Second St. Sacramento, CA 95814	Bill Davies	(916) 442-2883	No Relevant Information
Local			
Sonoma County Assessor 585 Fiscal Dr. #104F Santa Rosa, CA 95404	Staff	(707) 527-1888	Real Estate Maps and Ownership Information.
Sonoma County Administrator 575 Administration Dr. #104A Santa Rosa, CA 95404	Staff	(707) 527-1888	No Relevant Information
Sonoma County Library 3rd & E St. Santa Rosa, CA 95404	Reference Desk	(707) 545-0831	No Relevant Information
Sonoma County Sheriff 600 Administration Dr. #103J Santa Rosa, CA 95403	Desk Sergeant	(707) 565-2511	This is the administrative portion of the Sheriff's Department. Suggested contacting Sgt. Rob Douglas who is in charge of the EOD.
Sonoma County Sheriff Substation 9291 Old Redwood Hwy Windsor, CA 95492	Sgt. Douglas	(707) 838-1234	No responses to Site.
Marin County Sheriffs Office 3501 Civic Center Dr. #145 San Rafael, CA 94903	Staff	(415) 499-7252	No Responses to Site.
Assessor-Recorder Office 3501 Civic Center Dr. San Rafael, CA 94903	Joan Thayer Assessor-Recorder	(415) 499-7215	Property Maps and Ownership Information.

REFERENCE SOURCES

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
GOVERNMENT			
Local (cont.)			
Marin County Free Library 3501 Civic Center Dr. #414 San Rafael, CA 94903	David Dodd Branch Manger	(415) 499-6051	No Relevant Information
Petaluma City Library 100 Fairgrounds Drive Petaluma, CA 94952	Staff	(707) 763-9801	Newspaper Articles
NON-GOVERNMENT			
National			
FirstSearch 6565 Frantz Road Dublin, OH 43017-3395	Computer Search	(918) 420-8771	No Relevant Information
Coast Defense Study Group 1560 Somerville Road Bel Air, MD 21015	Mark Berhow	(309) 794-5163	No Relevant Information
Council on America's Past 518 West Why Worry Lane Phoenix, AZ 85021	Heliogram Publication	(800) 396-4693	No Relevant Information
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7358 Pulaski Rd. Chicago, IL 60629	Scott Forsythe	(773) 581-7816	Interview H-1
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P.O. Box 140503 Nashville, TN 31274	Carl Smith	(615) 885-0294	Interview H-4
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REFERENCE SOURCES

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
	NON-GOVERNMENT		
Individuals (cont.)			
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149 Del Mar Carmel, CA 93923	Joseph F. Jewett, Jr.	(831) 625-6963	Interview H-7
P.O. Box 333 Fernandinar, FL 32035	Sheridan Melogy	(904) 261-0980	Interview H-8
148 Vista View Pl. Petaluma, CA 94592	Don O'Mohundro	(707) 763-1681	Interview H-9
2412 Magnolia Ave. Petaluma, CA 94592	June Studdert	(707) 763-1681	Interview H-10
611 W. Mockingbird Ln. Dallas, TX 75247	C. David Strand	(214) 652-9889	Interview H-12
263 Choptank Rd. Stafford, VA 22556-6444	Paul Germain	(540) 720-1764	Map G-5

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

APPENDIX B

REFERENCES AND ABSTRACTS

APPENDIX B

REFERENCES AND ABSTRACTS

TABLE OF CONTENTS

APPENDIX B

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SECTION II

NATIONAL CAPITAL REGION ARCHIVES FINDINGS

PART A

POSITIVE FINDINGS

TWO ROCK STATION, CA

SECTION II
NATIONAL CAPITAL REGION ARCHIVES FINDINGS
PART A
POSITIVE FINDINGS

TWO ROCK STATION, CA

Also Researched Under: City of Petaluma CA; Sonoma County, CA; and Marin County CA

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SECTION II

NATIONAL CAPITAL REGION ARCHIVES FINDINGS

PART B

NEGATIVE FINDINGS

TWO ROCK STATION, CA

SECTION II
NATIONAL CAPITAL REGION ARCHIVES FINDINGS
PART B
NEGATIVE FINDINGS

TWO ROCK STATION, CA

Also Researched Under: City of Petaluma CA; Sonoma County, CA; and Marin County CA

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Accession 52 - 0259
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Entry 36: General Correspondence, 1915 - 1941
Entry 39: Confidential Correspondence, 1917 - 1940
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Entry 138: Readjustment Division, Central Decimal Files, 1943 - 1944
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RG 162 (Records of the Federal Works Agency)
Entry 21: Records of the War Public Works Program, 1941 - 1949

RG 165 (Records of War Department General and Special Staffs)
Entry 484C: Legislative and Liaison Division, Card Files and Approved WPA National Defense Projects, 1941 - 1942
Entry 484D: Federal Works Agency Project Files, 1940 - 1942
Entry 484E: Security Classified Federal Works Agency Project Files, 1942 - 1945

RG 168 (Records of the National Guard Bureau)
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Entry 1: Central Correspondence Files, 1918 - October 1942
Entry 1A: Records of The Office of the Chief Chemical Officer, 1946 - 1954
Entry 2: General Correspondence, 1918 - 1940
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Entry 7: Records of the Office of the Chief Chemical Officer, 1948 - 1960

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Entry 4: General Correspondence, 1922 - 1946
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Entry 15: Armed Forces Explosives Safety Board

RG 336 (Records of the Office of the Chief of Transportation)
Entry: Historical Program Files, 1940 - 1950

RG 337 (Records of Headquarters Army Ground Forces)
Entry 1: Army Field Forces. Headquarters, Chief of Staff, Combat Arms Advisory Group, Inspection Reports, 1948 - 1964
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Entry 57A: General Headquarters, U.S. Army, 1940 - 1942, Projects

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Entry 24: Western Defense Command, Central Correspondence, 1942 - 1946

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Entry: Field Installations
Entry 298: 9th Corps Area: Historical Reports Pertaining to Post Planning, 1899 - 1943

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Entry: 1940 - 1952 Army - AG Project Decimal File, Unclassified
Entry 360: 1903 - 1950 Army - AG Project Decimal File, Formerly Classified
Entry 427: WW II Operations Reports, 1940 - 1948

RG 429 (Records of the Organizations in the Executive Office of the President)
Entry 12: Central Real Property Surveys
Entry 17: Records Relating to Property and Installation Surveys, 1978 - 1984

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RG 18 (Records of the Army Air Corps)
RG 30 (Records of the Bureau of Public Roads)
RG 77 (Records of the Office of the Chief of Engineers)
RG 92 (Records of the Office of the Quartermaster General)
RG 145 (Records of the Agricultural Stabilization and Conservation Service)
RG 370 (Records of the National Oceanic and Atmospheric Administration)
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RG 18 (Records of the Army Air Force)
RG 30 (Records of the Bureau of Public Roads)
RG 77 (Records of the Office of the Chief of Engineers)
RG 92 (Records of the Office of the Quartermaster General)
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- Posts, Camps, and Stations File
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ALEXANDRIA, VA

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Installation Books

Map Collection
Military Collection
Oral History Collections
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SUITLAND, MD

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SECTION III
REGIONAL NATIONAL ARCHIVES FINDINGS
PART A
POSITIVE FINDINGS

TWO ROCK RANCH STATION

All Entries
Nothing Found

SECTION III
REGIONAL NATIONAL ARCHIVES FINDINGS
PART B
NEGATIVE FINDINGS

TWO ROCK RANCH STATION

NARA, PACIFIC REGION (LAGUNA NIGUEL)
LAGUNA NIGUEL, CA

RG 26, Records of the U.S. Coast Guard
All Entries
Nothing Found

RG 30, Records of the Bureau of Public Roads
All Entries
Nothing Found

RG 48, Records of the Office of the Secretary of the Interior
All Entries
Nothing Found

RG 49, Records of the Bureau of Land Management
All Entries
Nothing Found

RG 71, Records of the Bureau of Yards and Docks
All Entries
Nothing Found

RG 77, Records of the Office the Chief of Engineers
All Entries
Nothing Found

RG 156, Records of the Office of the Chief of Ordnance
All Entries
Nothing Found

RG 270, Records of the War Assets Administration
All Entries
Nothing Found

RG 336, Records of the Office of the Chief of Transportation
All Entries
Nothing Found

NARA, NATIONAL PERSONNEL RECORDS CENTER ST LOUIS, MO

RG 338, Records of U.S. Army Commands
All Entries
Nothing Found

NARA, PACIFIC REGION (SAN FRANCISCO) SAN BRUNO, CA

RG 26, Records of the U.S. Coast Guard
All Entries
Nothing Found

RG 30, Records of the Bureau of Public Roads
All Entries
Nothing Found

RG 49, Records of the Bureau of Land Management
All Entries
Nothing Found

RG 77, Records of the Office the Chief of Engineers
All Entries
Nothing Found

RG 103, Records of the Farm Credit Administration
All Entries
Nothing Found

RG 121, Records of the Public Buildings Service
All Entries
Nothing Found

RG 156, Records of the Office of the Chief of Ordnance
All Entries
Nothing Found

RG 175, Records of the Chemical Warfare Service
All Entries
Nothing Found

RG 219, Records of the Office of Defense Transportation
All Entries
Nothing Found

RG 269, General Records of the General Services Administration
All Entries
Nothing Found

RG 270, Records of the War Assets Administration
All Entries
Nothing Found

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

APPENDIX C

ABRREVIATIONS, ACRONYMS, AND BREVITY CODES

APPENDIX C

ABRREVIATIONS, ACRONYMS, AND BREVITY CODES

ASA	Army Security Agency
ASR	Archives Search Report
BD/DR	Building Demolition/Debris Removal
CDFG	California Department of Fish and Game
CEHNC	U.S. Army Corps of Engineers, Huntsville Center
CEMVR	U.S. Army Corps of Engineers, Rock Island District
CESPK	U.S. Army Corps of Engineers, Sacramento District
CWM	Chemical Warfare Materiel
DERP	Defense Environmental Restoration Program
DHD	Department of Homeland Defense
DoD	Department of Defense
DOT	Department of Transportation
EE/CA	Engineering Evaluation / Cost Analysis
EOD	Explosive Ordnance Disposal
FDE	Findings and Determination of Eligibility
FUDS	Formerly Used Defense Site(s)
GSA	General Services Administration
HTRW	Hazardous, Toxic and Radiological Waste
INPR	Inventory Project Report
M	Model
NARA	National Archives and Records Administration
NDAI	No Department of Defense Action Indicated
NPRC	National Personnel Records Center
NRHP	National Register of Historic Places
OE	Ordnance and Explosives
PAE	Preliminary Assessment of Eligibility
RAC	Risk Assessment Code
SHPO	State Historical Preservation Officer
SI	Site Investigation
TRACEN	U.S. Coast Guard Training Center
USCG	United States Coast Guard
WAA	War Assets Administration
WAC	Women's Army Corps

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

APPENDIX D

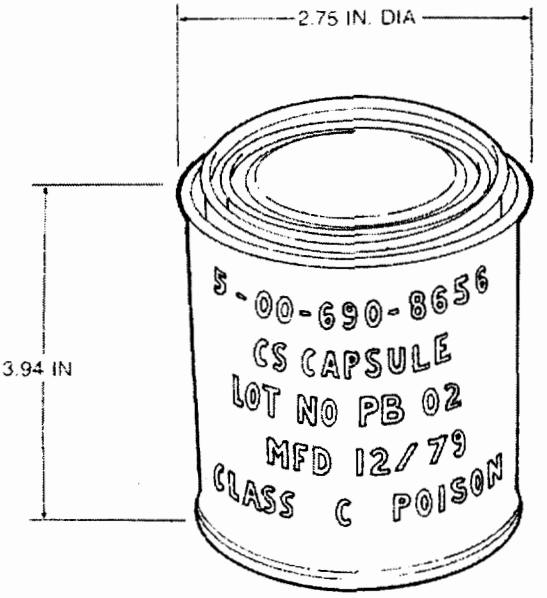
ORDNANCE TECHNICAL DATA SHEETS

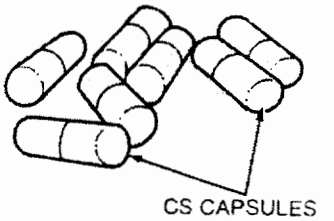
APPENDIX D

ORDNANCE TECHNICAL DATA SHEETS

TABLE OF CONTENTS

CAPSULE, RIOT CONTROL AGENT: CS





Type Classification:
STD (LCC-A); CCTC 3581 59

Use:
To demonstrate to trainees the protection afforded by properly fitted chemical-biological masks, and to demonstrate to unmasked trainees the effects of CS riot control agents.

Description:
The CS riot control agent capsule consists of a size 00 gelatin capsule filled with ground CS riot control agent (ortho-chlorobenzylidene malono-nitrile). The CS is ground to a particle size of less than 840 microns. The filled capsule weighs about 0.82 grams. Fifty CS capsules are packed in a resealable metal can.

Functioning:
The CS riot control agent is aerosolized by placing the capsule on an upended empty tin can that is placed over a burning candle. When the test chamber is filled with the agent, masked troops are brought into the chamber to gain confidence in their masks and test the fit of their masks. The troops are required to unmask to become familiar with the effects of the agent. The CS particles immediately sting and irritate skin, eyes, nose, and throat of exposed personnel. The symptoms are redness of the skin, tears, running nose, coughing, and tightness in the chest. The onset of these symptoms is extremely rapid. Incapacitating dosages lose their effects in 5 to 10 minutes.

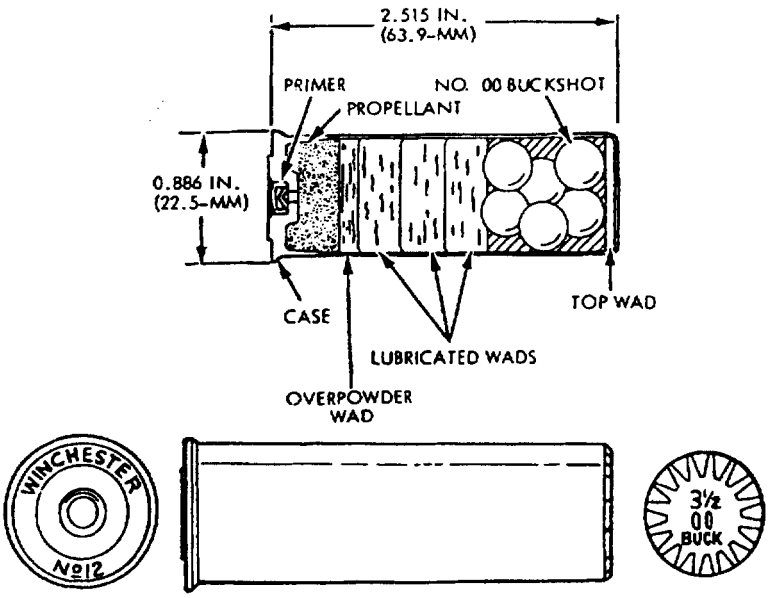
Tabulated Data:

NSN	1365-00-690-8656
Unit of issue	Can
Basis of issue	TAAMS
Type container	Metal can
Dimensions of can:	
Height	4 in.
Diameter	2.75 in.
Composition	Orthochlorobenzylidene malononitrile (CS)
Stability in storage	Very stable

Shipping and Storage Data:

Packing	50 capsules per can/5 cans per fiberboard box/ 10 boxes per wood box

SHELL, SHOTGUN, 12 GAUGE



General. Shotgun shells are procured by the Ordnance Department from several manufacturers for use in 12-gage sporting and riot-type shotguns. They are intended for guard or combat use and for hunting or trap shooting.

Visual identification. Shells for guard and combat use have a brass head extending at least 1-inch along the case. Shells for sporting use have a head extending only 1/2 inch along the case

Components. The consists of a case, a primer, several wads, a propelling charge, and a load of lead shot. The case consists of a brass head and a paper or plastic (more recent issue) case or shell body. In guard or combat shells, the head extends a distance of 1 inch along the case. (In some shells, the entire case is of brass.) In sporting shells, the head extends 1/2 inch or less. The head is reinforced by a base of compressed paper in which the primer pocket is formed. Some paper shells have steel reinforcement, called the lining, under the brass head. The shell body is made of paper and waterproofed. The head is attached to the shell body by crimping. The primer is a commercial type suitable for ignition of the smokeless powder used. The size of the leadshot for each type is as follows:

Guard or combat	No. 00 buckshot
	No. 4 chilled shot
Sporting.....	No. 71/2 chilled shot
	No. 9 chilled shot

Length.....2.515 inch
Weight.....930 grains
Propellant.....Smokeless Powder (26 grains)
Primer.....Percussion
Reference: TM9-1904, *Ammunition Inspection Guide*, March 1944

45 Automatic

Historical Notes Developed by John Browning in 1905 and adopted by the United States Ordnance Department, with the Colt-Browning automatic pistol, in 1911, it has also been made the official military handgun caliber by several other governments, notably Argentina, Mexico and Norway. The 45 Automatic is the most powerful military handgun cartridge in use today. It is also one of the most difficult to master. The Colt Government Model auto pistol and the Colt and Smith & Wesson Army Model 1917 Model revolvers are the principal arms chambered for the 45 ACP in the United States. Ruger, S&W, Springfield and Numrich now also offer guns in this caliber. Several submachine guns have used it, and about 1943 a number of Reising semi-automatic rifles were marketed in this caliber. Imitations of the Colt auto pistol have been made in Argentina, China, Korea, Norway and Spain and the U.S. It was replaced as of 1985 as the official U.S. military handgun cartridge by the 9mm Parabellum. However, it remains in the U.S. Marine Corp service and has proven increasingly popular with police agencies in the U.S.

General Comments The 45 ACP has been proven in combat all over the world as having excellent stopping power. It has also developed into a first-class match cartridge with accuracy equal to the best. It requires a good deal of practice for the average person to develop any degree of skill with this cartridge, particularly when fired in the Colt Government Model semi-automatic. It is used far more for target shooting than hunting, its curved trajectory limiting its effective range. Despite this, it is quite adequate for any small or medium game. Like all the other semi-auto pistol cartridges, it is a better hunting round with softpoint and hollowpoint bullets. A number of police departments have switched from the 38 Special to the 45 ACP in the last few years. All major and minor commercial ammunition manufacturers offer this caliber. After several years of declining sales, it is enjoying a resurgence of popularity.

45 Automatic Loading Data and Factory Ballistics

Bullet (grs.)	Powder/grs.		MV	ME	Source
185 JHP	Bullseye	5.0	900	333	Hornady, Sierra, Nosler
200 JHP	Blue Dot	10.0	900	360	Speer, Sierra
230 FMJ	Bullseye	5.0	800	327	Nosler, Speer, Sierra
230 FMJ	Unique	6.0	800	327	Speer, Nosler, Hornady, Sierra
230 FMJ	FL		855	405	Military load
185 FMJSWC	FL		770	244	Factory load
185 JHP	FL		1000	411	Factory load
185 JHP	FL		1140	534	Factory load (+P)
230 FMJ	FL		835	356	Factory load
230 JHP	FL		875	391	Factory load

30 M-1 Carbine

Historical Notes In 1940, the U.S. Ordnance Dept. concluded that a light carbine might have certain advantages over the 45-caliber semi-auto pistol in many combat situations. Various designs were submitted by a number of private manufacturers and, in the end, Winchester's offering was selected. The semiauto 30 M-1 Carbine was officially adopted in 1941. The cartridge, a modification of the 32 Winchester self-loading round of 1906, was hardly a revolutionary new design, but it served the purpose. At about the same time, the Germans developed their assault rifle and the 7.92mm Kurz or short cartridge. The M-1 Carbine is not an assault rifle and the military insist it was designed to fulfill a different purpose. A few sporting rifles and handguns have chambered the 30 Carbine. (See Chapters 2 and 5.)

General Comments In mid-1963, the government released 30 M-1 Carbines for sale to civilians through the National Rifle Association at the very moderate price of around $20. Thousands of these rifles, as a result, have been used for sporting purposes. Federal, Winchester and Remington load softpoint sporting ammunition and for the first time, the M-1 Carbine must be considered from other than a strictly military viewpoint. The 30 Carbine cartridge is in the same class as the 32-20 WCF, slightly more powerful if anything. It is wholly a small game and varmint number, despite contrary claims by those who love the short, light, handy M-1 Carbine. The modest accuracy of the Carbine combined with the ballistics of the cartridge limit the effective sporting accuracy range to about 150 yards, maximum. The author used an M1 Carbine to hunt small game and deer as early as 1943, before most people could get their hands on one, so he has a pretty good idea of the capability of the cartridge. Remember that the 32 Winchester self-loading round became obsolete in 1920 because it was ineffective and more or less useless for sporting purposes. The 30 Carbine was derived from it and shares the same shortcomings. However, the 30 Carbine can shoot relatively less expensive military ammunition and this allows use of the gun in many situations not economically feasible with the 32 SL. However, don't kid yourself about the terrific power of the 30 Carbine cartridge— it just isn't there. Despite this, it can be a very useful cartridge within its limitations and its use and popularity have increased considerably over the years.

30 U.S. Carbine Loading Data and Factory Ballistics

Bullet (grs.)	Powder/grs.		MV	ME	
100	2400	15.5	2170	?	Speer Plinker
110 SP	IMR 4227	15.0	2010	?	
110 M1 Ball	FL		1975	955	
110 SP	FL		1990	965	Commercial load

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

APPENDIX E

TEXTUAL REFERENCES

APPENDIX E

TEXTUAL REFERENCES

TABLE OF CONTENTS

E-15 Installation Inventory of Military Real Property, Two Rock Ranch Station, 1971. (B-20)

E-16 Inventory Project Report, 7 December 1994, revised December 1995. (B-4)

E-17 Fourth Quarter Ground Water Monitoring Report (LAN-MW1 and MW2) for United States Coast Guard Training Center Petaluma, California, June 1999. (B-5)

E-18 Assessor Inquiry, Parcel 022-170-011, June 2003. (B-14)

E-19 Assessor Inquiry, Parcel 022-170-013, June 2003. (B-16)

E-20 Owner Information, Parcel 104-070-04, 30 June 2003. (B-10)

COPY

SUBJECT: Establishment of Primary Monitoring Station, Two Rocks, Petaluma, California.

SPRMC
600.12 (7-24-42) 1st Ind. ALT/jg
Ext. 4155

Headquarters, Services of Supply, Washington, D. C.
To: The Chief of Engineers, Washington, D. C.

1. It is desired that you provide the necessary housing and facilities without delay in accordance with War Department Construction Policy for a Primary Monitoring Station at Two Rocks, Petaluma, California.

2. The operating personnel of this station will be:

15 Officers
2 Radio Engineers
500 Operators and Overhead

3. The completion date of this project will be established by you after conference with Chief Signal Officers.

4. The matter of establishing this station as an exempted station under control of the Chief Signal Officer is being made the subject of a separate communication.

By Command of Lieutenant General SOMERVELL:

W. A. WOOD, JR.,
Brigadier General, General Staff Corps,
Director, Requirements Division.

4 Incls. n/c

ALBERT PEARSON,
Colonel, G.S.C.,
Chief, Construction Br., Req. Div.

SECRET

SECRET

WAR DEPARTMENT
Services of Supply
Office of The Adjutant General
Washington

COPY NO 23

SPX 322.08(7-24-42)
MP-M-SP

August 7, 1942.

SECRET
Auth: T.A.G.
Initials D.T.O.
Date 8-7-42

SUBJECT: Establishment of Primary Monitoring Station, Two Rocks, Petaluma, California.

TO: Chief Signal Officer.

The Primary Monitoring Station under construction at Two Rocks, Petaluma, California is classified as an installation under your command in accordance with the provisions of paragraph 6 a (4) (a), AR 170-10.

By command of Lieutenant General SOMERVELL:

Adjutant General.

Copies furnished:

Commanding Generals,
Army Ground Forces
Services of Supply
Western Defense Command
Ninth Service Command
Divisions of the War Department
General Staff.
Publications Branch, AGO.
Chief, Statistics Branch,
War Department General Staff.
Commanding Officers:
Augusta Arsenal, Ga.
Benicia Arsenal, Calif.
Raritan Arsenal, N. J.
Rock Island Arsenal, Ill.
San Antonio Arsenal, Tex.

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SECRET

S E C R E T

SECRET
8-18-42 /s/ P.B.L.
9th C.A. Initial

Forward Echelon
Headquarters Ninth Service Command
676.3 MS #2(sig) OFFICE OF THE COMMANDING GENERAL (9-5-42) SPKIS-ER
SECRET Presidio of San Francisco

August 18, 1942

SUBJECT: Acquisition of Additional Land, Two Rock Project

TO : Division Engineer, South Pacific Division, 351 California Street, San Francisco, California (Attention: Mr. J. Mortimer Clark, Division Real Estate Director)

1. Reference is made to letter from U. S. Division Engineer, August 17, 1942, CE 601.1 (Two Rock Radio Receiving Station, Sonoma County, California) (753.66 Acres), subject: Directive to acquire land. Paragraph #1 of this letter states that 753.66 acres of land are to be acquired in compliance with directive.

Reference is further made to letter from Office of the Signal Officer, Hq. Ninth Service Command, 676.3 New MS #2 (Sig), June 30, 1942, subject: Real Estate Value: Two Rock Region, and also to Inclosure #1, Plot Plan - Two Rock Site.

2. The holdings of Regina D'Ambrogi, indicated as "A", Inclosure #1, extend beyond the Sonoma-Marin County line; that portion within the Marin County is indicated as "B", and has an area of ninety five (95) acres. The D'Ambrogia interests have informed this headquarters that the ninety five (95) acre parcel is available for acquisition. It is believed that this additional acreage can be acquired for a reasonable consideration, in that it is used for sheep grazing only, and is without access by roadway. The plot is ideally situated for installation of additional radio antennas; it will serve a useful function, and its acquisition is therefore requested.

3. In order to maintain a uniform boundary line for the easterly portion of the site, it is further requested that a small additional plot be acquired for Milio Dario Frasiali. This plot is indicated as "C", Inclosure #1.

4. It is requested that a revised Boundary Map of the expanded site be submitted to this headquarters and also to District Engineer, U. S. Engineer Office, 74 New Montgomery Street, San Francisco, California.

For the Commanding General:

/s/ P. B. Lamson
P. B. LAMSON
Captain, Signal Corps
Acting Assistant Adjutant General

1 Incl.
#1 - Plot Plan - Two Rock Site

E-3

CONFIDENTIAL

SPSIS 311.5-General
(Mar. 30, 1943) 2nd Ind. SPSIS

War Department, Army Service Forces, OCSigO, Washington, D. C. April 9, 1943.

To: The Chief of Engineers, Room 5013, New War Department Building, Washington, D. C.

1. a. Copy of layout plan is attached. Existing facilities are as follows:

1	School House	40' x 100' ft.	Used as a school
1	Warehouse	20' x 100' ft.	Storage
1	Post Exchange	20' x 64' ft.	Exchange
	Officers Quarters	20' x 100' ft.	Quarters
1	Recreation Building	20' x 72' ft.	Recreation
1	Operations Building	40' x 200' ft.	Technical
1	300-man Mushall		Mess
12	Barracks	20' x 100' ft.	Troop housing
1	Headquarters Building	20' x 100' ft.	Administration
1	Emergency Power Plant		Not completed
1	Guard House	20' x 100' ft.	
1	Fire Station		
1	Dispensary		

b. The dwellings and barns acquired with the property are being used for officers quarters, shops, and storage. Some are not shown on the plot plan as they are located in the area used only for radio operations and are remote from the troop housing.

2. a. The Second Signal Service Battalion has an authorization from The Adjutant General, File AG 211 (9-24-42)PE-A-SPGA, dated October 31, 1942 which provides for an increase in strength of 520 men on April 1, 1943. At present the strength at Two Rock Ranch is 200. Beginning on April 1, 1943 the strength will be increased to 591.

b. For security reasons, the Commanding Officer at Two Rock is anxious to clear the station of all non-military personnel within the next sixty to ninety days and it is hoped the recreational facilities can be completed within this period.

For the Chief Signal Officer:

W. Preston Corderman,
Colonel, Signal Corps.

Incl: n/c

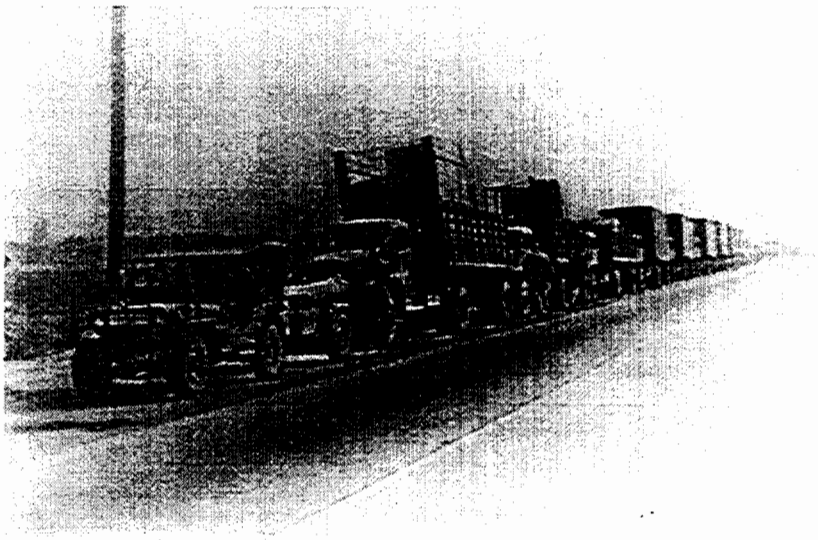
CONFIDENTIAL

MY REMINISCES OF WW II

Frank Lauderdale Saffarrans, Jr.
US Army 39701417

Two Rock Ranch

August 12 - December 20 1943



One more stop before going overseas. We loaded all the 119th SRI Company's men and equipment on our trucks, 4x4s 6X6s, trailers, jeeps and command cars and headed north on Highway 101, in a convoy of about 25 vehicles, over the Golden gate bridge to Two Rock Ranch. This was an army radio intercept station 35 miles north of San Francisco near Petaluma, California. It was a memorable experience. I was one of the traffic guards. We had two jeeps with four guards in each jeep. We raced ahead of the convoy to drop off guards at intersections. The guard stood in the middle of the intersection stopping traffic. We thought we looked real cool standing there with a Thompson submachine gun on our hip - no ammunition. After the convoy passed we were picked up by the jeep and then raced back to the front of the convoy. Local police just watched with their mouths hanging open. We were through their small towns and gone in just a couple of minutes. We had a police escort through San Francisco to the Golden Gate Bridge.

Two Rock Ranch Intercept station was located just west of Petaluma, California. Petaluma was and is known today for egg and chicken production. The intercept station was camouflaged as a chicken farm. Similar but real ranches surrounded the +500 acre ranch. The barracks looked like production chicken barns as did the building that held the intercept radio receivers and operators. There was a fake water tower, small barn and corral on a hill overlooking the barracks area. The corral held an imitation cow made of wire net and feathers. The tent area that had been added for our temporary quarters stuck out like a black eye. There was a company of

WAAC (Woman's Auxiliary Army Corps) performing the radio intercept function supported by a small cadre of army men for logistical support and guard functions. The radio intercept buildings were set apart from the living quarters and were enclosed in a fenced area that was patrolled by armed guards with submachine guns. Each building had separate guards inside. The 119th was sent to Two Rock Ranch to receive some final training for the radio intercept operators before going overseas.

When we arrived, our Captain was immediately informed that he was to provide guards for two posts for a 10:00 p.m. to 6:00 a.m. tour. The Captain assigned his infantry guys, John Scanlan and me. It should have been 4 guards pulling 4-hour tours but he assigned the entire tour to us. We would do an 8-hour tour. We reported to the sergeant of the guard. He gave John a full clip of ammunition for his Thompson submachine gun but took my gun and gave me a double barrel 12-gauge shotgun and two brass 00 buckshot shotgun shells. John was given a post on the hill with the chicken wire - chicken feather cow. His post overlooked the entire post. I was given the post that guarded the WAAC barracks and day room. The orders given to me that I was to walk around the barracks about every 10 minutes or less. The sergeant reminded me that he could view my progress from his guard shack. (Equipped with a bunk) and would be checking on me. I started my tour around the barracks and there was not a WAAC to be seen. After about 15 minutes they all got off duty in the intercept building and came to their barracks. A cut had been made in a small bank to provide a level foundation for the barracks and resulted in about a six foot wide path around the back of the barracks. I had made the first few rounds directly alongside the barracks at the bottom of the cut but I discovered that if I made my tour upon the top of the cut I could see directly into the bunk area of the barracks. This made the tour much more enjoyable. About midnight they had all showered and gone to bed and turned the lights out. When this happened I revised my tour back to the bottom of the cut. The barracks windows, all open with no screens, were about a foot higher than my head on this level so I could not see inside. By this time, the shotgun was getting heavy so I just balanced it on my shoulder as I walked the tour. Suddenly, while I was walking at the lower level in the back of the barracks, my shotgun was lifted off my shoulder and it disappeared through a window into the barracks. A mischievous WAAC had stolen my shotgun. I had to do something in a hurry. The ROTC Commandant had not prepared me for this situation. I had noticed on my last round that the sergeant was sitting on a chair outside his shack watching me. He would be sure to notice if I made a round without the shotgun. I pulled myself up, sat in the window, and said: "OK, you got me, but if you don't return that shotgun immediately we will all be in big trouble." The only response was a few giggles. Then I said: "I coming in after it if you don't give it to me immediately." This just brought on more giggles but this time the door to WAAC first sergeant's quarters opened and a voice said: "Return the shotgun immediately!! None of you want me to come in there!" There was dead silence and very quickly an arm appeared in a window with my shotgun. I finished the remainder of the tour, out of reach, on the upper level. Eight hours is a very long time for a walking guard post, especially since I already had a very long day playing convoy traffic guard during the convoy trip to the ranch.

The rest of the story is that the next night they assigned the posts, shortened to 4 hr tours, to some other men. That was a mistake for the man assigned the top of the hill post mistook, in the dark of the night, some sheep that were grazing up the hill toward him for an enemy creeping up on him. They did not halt as he requested so he fired several bursts with his Thompson submachine gun at them. He did not hit a one but got much of the post in an uproar. But he could copy Morse code at a good rate.

The 119th had its cadre of men who spent most off duty hours at the PX drinking beer. They really made fools of themselves shortly after arriving at Two Rock Ranch. The next night after our arrival they located the Post's PX beer garden and proceeded to make themselves at home. The found an unforeseen problem - they were accustomed to drinking low alcohol content 3.2 beer that was sold at the Fort Ord PX. The Two Rock Ranch PX obtained its beer from local wholesalers and was the full strength beer with at least twice the alcoholic content. The result was some nasty fights with some members of the Two Rock Ranch male cadre. Maybe the guard who opened up on the sheep later that night had made a stop at the post beer garden.

John Scanlan and I were assigned guard duty on a regular basis. We were radio direction finder operators and there was no radio direction finder training available for us at the ranch. The intercept operators pulled regular intercept duties along with the WAACS. On one tour I was on duty at about 2:00 a.m. at the hill post when a tent below caught fire. I sounded the alarm just like the ROTC Commandant taught me.

The captain was very generous with weekend passes. The weekend was defined as after lunch on Friday to before lunch on Monday. John Scanlan and I went to San Francisco or Oakland for each weekend. San Francisco was a Navy city in that the streets were crowded with Navy blue- very little Army olive drab. Not that we frequented the bar scene but we did go in at times. The fact that we wore Army olive drab in a bar crowed with Navy blue and had II Armored Division patches got us more free drinks than we needed. John and I meet a couple of WAVES (Women Accepted for Volunteer Emergency Service) at an ice skating rink in Oakland. The WAVES liked to do the same thing we did - Go ice-skating, sight seeing, and movies instead of frequenting the bars. Also, we were a relief to them from the sea of navy blue that surrounded them at the hospital where they worked in the pharmacy. It was very difficult to reach them by phone. They shared a public pay phone in their quarters with about fifty other women. That was one busy phone, especially since they could receive calls only between 6:00 - 10:00 p.m. After the first date, we made definite plans for the next weekend. I believe we all got together for about four weekends. Martha Ronning PhM 2/c, Waves Quarters, U.S. Naval Hospital, Oakland California, where are you today. We corresponded for a while after I went overseas - I don't remember when or why we stopped.

We celebrated Thanksgiving Day in the mess tent at Two Rock Ranch. Each table was served with a whole turkey. There was much ado about the proper method of carving the bird. The bird on our table turned out to be the highlight of the day. When we cut into it, we discovered to our dismay that the bird still had its original inside complement of parts. It had been roasted to perfection but someone had neglected to clean it out. The bird was thrown out and we served ourselves helpings of turkey from the other tables.

CONFIDENTIAL

CE 601.1 (Two Rock Ranch, California) SPELU 2nd Ind.

Subject: Composite Inspection Report on Two Rock Ranch (Two Rock Radio Receiving Station).

Army Service Forces, Office of the Chief of Engineers, 27 September 1945.

To: The Division Engineer, Pacific Division, SAN FRANCISCO, CALIFORNIA.

1. Attention is invited to the basic communication which comments on the preparation of the utilization inspection report on subject station.

2. Captain Hartwell of the Signal Security Agency, this city, called at this office and complained that the report, in paragraph 2, stated that the function of this installation is to receive and transmit, whereas actually the installation is an intercepting station; in any event, that office does not wish it to appear in future reports. His second grievance was that paragraph 6 should merely set forth the number of total personnel with a possible breakdown of officer, enlisted men and WACs without referring to them as "Intelligence" or other classification. The third and last grievance was that while the report and transmittal letter were classified as confidential, they were received in an unclassified envelope or wrapper. He did not have the incoming wrapper with him and this office suggested the possibility that the mail might have been mishandled at the reception end rather than in your dispatch office.

3. In the preparation and forwarding of future reports on installations of this type it is requested that the foregoing comments be taken into consideration.

BY ORDER OF THE CHIEF OF ENGINEERS:

ROBERT H. PARHAM
Major, Corps of Engineers
Chief, Management & Disposal Division
Real Estate

1 Enclosure
Composite Inspection
Report (in duplicate)

1387575

CONFIDENTIAL

INVENTORY OF MILITARY REAL PROPERTY - INSTALLATION SUMMARY

NAME OF INSTALLATION: TWO ROCK RANCH STATION	LOCATION OF INSTALLATION: SONOMA&MARIN CO CAL	TYPE: NON IND-PERM	REPORT CONTROL SYMBOL OR OTHER IDENTIFYING NO.: 05191?CAL-18
NEAREST CITY: PETALUMA	COUNTY OR EQUIVALENT: SONOMA AND MARIN	MEMBER OF SUMMARY	COMPONENT: ARMY
PRINCIPAL MISSION OR PURPOSE: ASA RECEIVING STATION	OPERATION OR INDUSTRIAL:	YEAR OF LISTING OR DISCREPANCY: 1962	STATUS: ACTIVE

CATEGORY		OCCUPANCY CODE	TYPE OF OWNERSHIP	AREA				OTHER FACILITIES		COST TO U.S. GOVERNMENT			ANNUAL RENTAL RECEIVED	ANNUAL RENTAL PAID	APPRAISED OR ESTIMATED VALUE (SHOWN ONLY IF LEASED OR FURNISHED BY FOREIGN GOVERNMENT)
CODE	DESCRIPTION			NUMBER OF BUILDINGS	UNIT OF MEASURE	TOTAL	DUTY-BENEFITS (Included in column 7)	VACANT SPACE (Included in column 7)	UNIT OF MEASURE	NUMBER OF UNITS	TOTAL	COST OF BUILDINGS (Included in column 22)	IMPROVEMENTS ON LEASED LAND (Included in column 24)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
123	FUEL/DISP/LAND	1	P		SF				GL	1	2500					
135	COMMS/LINES	1	P						MI	7	107250					
141	LD/OP/BLDGS	1	P	1	SF	18807					680035	680035				
		1	T	1	SF	2140					11100	11100				
219	MNT/INS/REP/OPN	1	P		SF						1100					
		1	T	3	SF	3510					13100	13100				
411	LIQ/FUEL/STOR	1	P		SF				BL	400	10400					
442	COV/STOR/INST	1	T	7	SF	3848					32650	32650				
520	INFIRMARY/BLDGS	1	T	1	SF	4216			BD	13	21050	21050				
610	ADM/BLDGS	1	P	1	SF	6400					99000	99000				
		1	T	2	SF	10760					50700	50700				
711	FAM/HSG/DWELLG	1	P	5	SF	35370			FA	24	338902	338902				
		1	T	9	SF	11291			FA	5	11080	11080				
714	FAM/HSG/DET/GAR	1	T	7	SF	11307			VE	5	3775	3775				
722	TRMSG/EM/WO/MES	1	P	4	SF	53216			MN	172	473300	473300				
723	TRMSG/DET/FAC	1	P	2	SF	6495					164930	164930				
724	TRMSG/BOQ	1	T	1	SF	1810			MN	4	2000	2000				
730	PERS/SUPP/SVC	1	T	1	SF	2418					16200	16200				
740	COMMUNITY/INTER	1	P	5	SF	8204					114384	114384				
		1	T	8	SF	29591					140938	140938				
750	COMMUNITY/EXTER	1	P								24380					
		1	T								4850					
812	ELEC/DISTR/TMSN	1	P	1	SF	600			FT	26470	67700	13500				
831	SEWAGE/TRMT/DSP	1	P		SF				TG		98960					
832	SEWAGE COLLECT	1	P						FT	14230	69003					
833	WASTE/REF/GARB	1	T	1	SF	51			TN	5	3340	3340				
841	WATER SUPPLY	1	P	1	SF	63			TG	100	93229	7200				
		1	T	3	SF	192			TG	100	15000	15000				
842	WATER/DISTRIBTN	1	P						FT	68439	210689					
851	ROADS & BRIDGES	1	P		SY	74455			MI	7	201600					
		1	T		SY	13404			MI	1	27200					
852	WALKS PARKING	1	P		SY	13288					43273					
		1	T		SY	9259					1420					
871	GROUND DRAINAGE	1	P						FT		110					
872	GROUND FENCING	1	P	1	SF	72			FT	24750	79560	560				
		1	T	1	SF	675			FT	27250	16300	2700				
911	LAND/NELD/MILIT				AC	836	780				112049			2400		
				62							3244137	2214784		2400		

FOR DESCRIPTION OF SYMBOLS AND CODES USED SEE FOLD-OUT SHEET INSIDE BACK COVER.

C-1586

E-8

Two Rock Army Base Vital Link

[illegible] — Col. [illegible] is commander of [illegible] Rock Army facility [illegible]. Another [illegible] military installa[tion] [illegible] Hamilton Air Force [illegible]. (Argus-Courier Photo)

The primary purpose of the Two Rock Army Station is [illegible] of the [illegible] radio communications and [illegible] [illegible]. That [illegible] [illegible] to make people in the Petaluma area thankful for the [illegible].

But there are many more benefits to be derived from the post, not the least of which is the introduction of many civic minded, hard working people to this area.

Untold numbers of servicemen have retired from the Army while stationed at Two Rock and then settled down here to spend the rest of their lives to work and help in the progress of the Petaluma area.

Included among the many are former Two Rock Commander Ned Davis, now manager of the Petaluma Chamber of Commerce; Charles Osborn of Santa Rosa, who retired as a technical sergeant and not only continued to work at the station as a civilian but also acts as liaison between the station and [illegible] and [illegible] scout groups throughout the area, and [illegible] R. O'[illegible], another former post commander, living in Petaluma.

The communications work at the station is top secret and all those stationed there, and most civilians working there, must have top secret security clearances. But the station is only considered semi-closed and individuals and groups are allowed to enter for special purposes.

There is, for example, a Scout campsite on the post designed to help instruct Boy and Girl Scouts in various crafts.

The station, dedicated in 194[illegible], covers [illegible] acres. There are a total of 1,[illegible] military personnel and their dependents that use the facilities provided for both work and recreation.

A total of 165 military families live off the station in the Petaluma Area. More than [illegible] civilians, also all from the Petaluma area, work on the post in civil service capacities.

Two Rock is a unit of Army Security Agency (ASA), a department of Military Intelligence attached to the Sixth Army, which has headquarters in Arlington, Va.

Present post commander is Col. Keene N. Wilson, who has been in ASA since the early 1950s when he was called back to active duty because of the Korean War.

Wilson was an infantry officer during World War II but left the service at the end of the war.

Since his return, he has commanded an ASA post in Ethiopia, at which time he reviewed troops with Emperor Haile Selassie.

Personnel stationed at Two Rock must be able to score a minimum on a General Test (GT) of 130, the highest for any department in the Army. Consequently, most men stationed at the post have one or two years of college and are still [illegible] to complete their education.

[illegible] there are [illegible] personnel stationed at Two Rock taking courses at Santa Rosa Junior College, [illegible] [illegible] courses, [illegible] of [illegible] from various colleges, also are enrolled at Sonoma State College in Rohnert Park and several others go to the University of San Francisco or the University of California in Berkeley.

Two Rock not only enhances the economy of the Petaluma area through the personnel residing here and buying in the various stores, but also through construction work on the post.

Over $480,000 was spent on post housing in 196[illegible] and another $300,000 is planned for this year. The housing units, duplex style for both officers and enlisted men, cost $[illegible],000 each.

The construction of a new dispensary is currently under way, at a cost of $[illegible],000.

There are facilities for many kinds of extra curricular activities at the station, including a gymnasium with weight room and [illegible], bowling alley, crafts shop, library with [illegible] volumes, a trap and skeet shooting range and a [illegible] lake for boating and fishing.

Post Commander Col. Robert T. Walker, now retired and living in Paradise, Calif., had the lake constructed.

Two Rock's oldest member, in years of service, is Myrtle Page of Petaluma, who has been the post librarian for 18 years.

A Vietnam leadership training course is held every two months at Two Rock which has a mock-up of a Vietnam village, plus a series of tunnels used in teaching basic infantry tactics, map reading and several other courses designed to aid in the fighting of the war.

SECURITY CHECK — Spec. 4 [illegible] stands guard at the main gate of Two Rock Ranch Station, an Army Security Agency installation near Petaluma. The military facility is a contributor to the economic life of the community. (Argus-Courier Photo)

OOM

DISPOSITION FORM

(AR 340-15)

REFERENCE OR OFFICE SYMBOL	SUBJECT
AAHRQC	Range Firing

TO Personnel Concerned FROM 1SG, Hq Co DATE 3 Sep 69 CMT

1. The following schedule for weapons firing on 16 Sep 69 will be followed:

0615 Breakfast	0950 Safety Briefing
0700 Formation	1000 Firing
0730 Normal Duty	1300 Lunch
0820 Formation and Rollcall	1330 Police Call
0830 Lv for Ft Barry	1400 Rtn TRPS
0945 Arrive Ft Barry	1530 Arrive TRPS

2. For the schedule above, the following individuals will be required to go:

SSG AVILES, V.	PV1 LANGLEY, J.*
SGT OWEN, D.	SP5 LLOYD, C.
SGT PENDEREY, L.	SP4 MCKNIGHT, G.
SP4 ANDERSON, R.	SP4 MILLS, S.
SP4 BAKER, L.	SP5 MOSTELLER, B.
SP5 BARNES, A.	SP4 NEWSOME, R.*
SP4 BATSON, L.*	SP5 PARK, D.
SP4 BOXELL, H.	SP4 RODRIQUEZ, D.
SP4 DEYOUNG, M.*	SP4 SARGENT, L.
SP5 FREEMAN, J.	SP5 SMITH, C.
SP4 GALE, S.	SP5 TACK, J.
SP5 GEBHARDT, C.	SP4 TUCKER, J.
SP4 HUSS, R.*	SP5 WALKER, B.
SP5 JACKSON, L.	SP4 WASHBURN, F.
SP5 JAMES, R.	SP5 YOUNG, R.
SP4 KINGSLEY, L.	SP4 WHITE, F.
SP4 KROLL, S.	PFC GROSS, J.
SP5 LAMB, R.	

3. SSG Church will be Range NCO.

4. SGT Berger will be Safety NCO.

5. SGT Newland will be Asst Safety NCO.

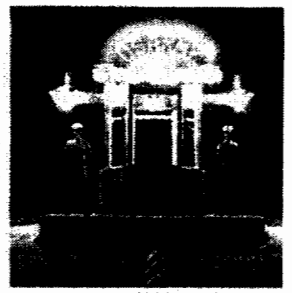
6. SP6 Tocke will call roll on Hq Co Street at 0820.

7. SGT Radewan will report to CIPBO at 1700 hrs with rifle cleaning detail.
(* indicates individuals on detail.)

James R. Hawnah
JAMES R. HAWNAH
SFC E-7
1SG Hq Co

DA, FORM 2496-1 REPLACES DD FORM 96 (STENCIL), EXISTING SUPPLIES OF WHICH WILL BE ISSUED AND USED UNTIL 1 FEB. 69 UNLESS SOONER EXHAUSTED.

"From Cattle Ranch to ASA Field Station - TRR: Gateway to the Redwood Empire"



Courtesy of Dave Shively

(from the May 1971 edition of The Hallmark)

Flags of seven nations have flown over the area known today as the Redwood Empire of northern California. Now, the rolling hills of this historic wine and cattle-raising country play host to the U.S. Army Security Agency Field Station, Two Rock Ranch, Petaluma, California.The Redwood Empire around Two Rock Ranch Station has felt the tread of miners, Spanish grandees, and pious fathers of the Catholic Church who came to found their Missions and teach the Gospel.

The first to claim the area was Sir Francis Drake, who landed in what is now called Drake's Bay at Point Reyes, California. The serene bay that Drake sailed into is now a place where personnel from TRRS swim and fish while enjoying nearly the same view as Drake, thanks to the newly-created Point Reyes National Seashore.

The station's history dates only from August of 1942, when the War Department purchased nine tracts of rich ranch lands totaling 876 acres at a cost of $97,377. The first contingent of troops to occupy the installation included 2 officers and 45 enlisted men from Ft. Monmouth, N.J., who arrived in October 1942. The only billeting consisted of tents while the former ranch houses were converted for use as administrative and operational facilities.

Because of the war in progress, all buildings were camouflaged to blend into the surrounding country. From the air, TRRS looked no different than any other ranch in the area, with the water supply covered by a haystack and false furrows created around the operations areas. The post had been founded as a Signal Security Agency installation, with a mission to provide communications operators for the war in the Pacific. In 1945, TRSS was redesignated a special installation and placed under the jurisdiction of the Army Security Agency.

With the end of the war, a program of permanent construction was started with the building of a modern, all-purpose Operations Building, consolidated Mess Hall and five permanent troop barracks. Since then, progress of permanent construction has expanded to add a Post Headquarters, Special Services Gym, tennis courts, 84 enlisted family housing units, 10 company and 3 field grade officer quarters, and most recently, a new Post Dispensary with all the modern facilities required for current needs. The station stands today as a small but modern ASA installation, and includes most of the administrative, logistical, recreational, medical and religious facilities found on other installations of equal or larger size.

Two Rock Ranch is situated on the northwest ridge of the Two Rock Valley. This particular section of northern California is referred to as the "Gateway to the Redwood Empire," symbolic of the giant redwood forests, located 40 miles north at Guerneville. Petaluma, the nearest city, is nine miles east of TRSS on US Highway 101 and has a population of 25,000. This figure includes not only many officers and enlisted men currently assigned to the station, but also the large number of retired military personnel who have adopted this area for their home. Although agriculture still ranks as Petaluma's chief commodity, a shift to light industry is underway.

Within the station itself, Two Rock Ranch boasts many recreational and sports facilities. Also, TRRS is proud of its long tradition of participation in local and regional tournaments in nearly every type of sporting activity. The geographic location of TRRS makes it an excellent starting point for sightseeing or outdoor sports. Nearby are many recreational beaches, including Drake's Bay, which are good for surfing and swimming. And during the summer months, a deep-sea fishing boat is available through Special Services at Bodega Bay, only 11 miles from the Post. Sightseers enjoy not only the redwood forests to the north, but also quick trips to historic Fort Ross which is close by. Fort Ross was built by Russian settlers in 1811 to support Russian claims to large areas of western Canada and the present states of Washington, Oregon and much of northern California.

California, of course, is the most prominent wine-producing state in the United States. The Napa, Sonoma and Mendocino counties are world renowned for their wine products, and nearly all the wineries offer a tour of their plants along with a delicious and enlightening sampling of their products. The station enjoys a nearly perfect year-round climate. The average temperature stays close to 65 degrees in the winter and 70 degrees in the summer. Personnel assigned to TRRS go quickly from their operational duties to capitalize on the wealth of activities available in one of America's most beautiful out-of-door areas.

San Francisco, one of the Western World's most prominent cultural centers, is only an hour away. In "The City," featured events range from boat shows and the world's biggest car show to rodeos and the San Francisco Opera. With the serenity of the giant redwood forests on the north, the alluring call of the Pacific beaches, the constant clamor of things to do, places to go and sights to see, a duty tour at Two Rock Ranch, is somehow amazingly short.

Two Rock Closing - The End of an Era

Courtesy of Dave Shively

(from the May 1971 edition of The Hallmark)

That persistent rumor that kept cook and KP, officer and EM, and the military and civilian communities buzzing for nearly a year at Two Rock Ranch Station finally came true.The Army Security Agency announced it was closing down the Petaluma, California post effective June 30, closing out one of the most popular USASA stations and transforming some 29 years of memories into a few pages of history.

The move is going to save the government some $2,500,000 a year. Just what will become of the post is not yet decided. There is a possibility that the Coast Guard will take it over as a training center. If that doesn't happen by June 30 though, Two Rock will remain in a caretaker status manned by a small contingent of military and civilian personnel until the Army decides what to do with it. Two Rock Ranch Station was born in the early war years - August of 1942 to be exact. Throughout the war, administrative and operational functions were housed in permanent buildings. The troops, including several large contingents of WACs, were not. They lived in tents.Camouflage was the order of the day and Two Rock Ranch Station blended with the surrounding countryside. The post water supply tanks were hidden under haystacks and false furrows helped blend the operations area into the rich surrounding pasture land.

In 1945, the post was turned over to the Agency. The rest is modem history. The place grew like Topsy: the five troop billets, consolidated messhall, operations buildings, headquarters building, 84 enlisted family quarters, 13 officer family quarters, tennis courts, the gym and most recently, the dispensary. And the numerous laurels and awards won by the men at Two Rock came just as quickly - testimony to the important contributions made to National Security by ASA's west coast installation.

But that job is over now. Two Rock's missions have been transferred to other locations. Soldiers and their families are leaving every day for new assignments. Efforts are being made to find suitable work for the DA civilian employees whose jobs have been eliminated.
Yet Two rock Ranch Station was more than a place where you worked at a job. It was near the beach, within striking range of San Francisco, great restaurants, major sporting events, the arts and . . . even more.

"It's really a shame," said Specialist 5 Thomas M. Oakley. "(At Two Rock), the local people have the healthiest attitude toward the military that I have ever seen." Nearly everyone else echoes Oakley's sentiments. Few want to leave. And at least one captain dreads the idea.

"I hate to see the Post close down," said Captain William G. Bray, ""particularly since I am in the S-4 shop and have the nightmarish task of insuring that all of the property leaving here is shipped out properly!""

MILITARY BASES

the two rock ranch station BUGLE

VOLUME XXIII, Final JUNE 1971

Picture Not Available

Colonel Clyde V. Simpson
7 August 1942
26 May 1943

Picture Not Available

Major Frederic H. Lutz
26 May 1943
2 December 1943

Lt. Colonel Frank C. Winkler
2 December 1943
15 August 1945

Major Robert F. Pope
15 August 1945
2 March 1946

Colonel Herbert B. La ux
16 September 1948
10 July 1950

Lt. Colonel Edward L. Davis, Jr.
1 September 1954
14 October 1956

TWO ROCK RANCH

For almost 29 years, the historic Redwood Empire of Northern California has played host to the U.S. Army Security Agency Field Station, Two Rock Ranch, Petaluma, California. As of June 30, 1971 Two Rock Ranch will no longer function as a military installation and will become CARETAKER status under the auspices of a team of civilian and military contingency.

Two Rock Ranch was established by the War Department in August 1942, when the purchase of nine tracts of ranch lands totaling 876 acres at a cost of $97,377 was instigated. The first contingent of troops to occupy the installation included 2 officers and 45 enlisted men from Ft. Monmouth, New Jersey who arrived in October 1942. In October 1943, Two Rock Ranch received their first WACs from Des Moines, Iowa, although no WAC personnel are presently assigned or projected.

The only billeting consisted of tents while the former ranch houses were converted for use as administrative and operational facilities. Because of the war in progress, all buildings were camouflaged to blend into the surrounding country side. From the air, Two Rock Ranch looked no different than any other ranch in the area, with the water supply covered by a haystack and false furrows created around the operations area. *Continued on Page 7*

Lt. Colonel Lester E. Gross
15 October 1958
September 1961

Lt. Colonel Harry G. Mathis
7 September 1961
19 August 1962

Lt. Colonel Louis P. Fuerst
20 August 1962
30 June 1964

Colonel Robert T. Walker
1 August 1964
15 September 1966

SCHEDULE OF CLOSURE

Two Rock Ranch Station will undergo a series of steps leading to its closure. They will take place as follows:

April 30 - Army Community Service will terminate.

May 16 - Projected closing of all Special Services craft shop activities.

May 20 - Officers Open Mess will close.

May 31 - The Post will cease its local purchasing.

June 12 - The Commissary will cease operation.

June 15 - The NCO Club will close its doors.

June 20 - Projected closing of Post gym and auto hobby shop.

June 30 - The PX, laundry, service station, post office, guest house, dispensary will all close. The final Morning report will be submitted, publications will terminate, the caretaker detachment will assume command, and all military personnel, except the caretaker personnel, will vacate government quarters.

All the facilities on the post will begin to scale down their activities to facilitate easier closing. Dates may also change as needs dictate.

SUPPLIES DONATED TO THE AYCOCK RANCH

Forty-one retarded children at the Aycock Ranch, 1799 Pepper Road, were the recipients of school supplies and other materials furnished by the Two Rock Ranch Station NCO-EM Wives Club. The Ranch, a 175 acre complex, complete with cattle, horses, sheep and a swimming hole, is an unique organization operated by Mr. and Mrs. O. A. Aycock and 16 volunteer workers. Housed within the foster home are 35 children ranging in ages from seven through twenty-five, afflicted with one form or another of mental retardation and each requiring extra loving care and attention. In its decade and a half of operation, the Aycock Ranch has grown from a one building and six children Foster Home to its present complex of dormitories and classrooms. Nearby is a recent acquisition called the "Farm", housing six children. Bess Aycock accepted the contribution from the TRRS NCO-EM Wives Club on behalf of the "Home", lamenting the closure of TRRS and the departure of many old friends.

—ANNOUNCEMENT!!—

In a formal message from the U.S. Army Security Agency, Arlington Hall Station, Arlington, Virginia, it was announced that Two Rock Ranch Station, Petaluma, California will be closed by June 30, 1971.

The closure of Two Rock Station is part of the Army's program to consolidate its activities that have similar operational functions and to therefore achieve savings and increase the Army's overall efficiency. The overall savings to be realized by this action is estimated at $2.5 million annually.

As of June 30, the Post will be maintained by a small detachment of men, civilian and military, who will operate the facility under a CARETAKER status. The future of the station is yet to be determined.

The civilian personnel who are affiliated with the Post will have priority to vacancies in other defense activities as well as priority for reemployment. The military personnel will be reassigned to other units of the U.S. Army Security Agency.

HEADQUARTERS COMPANY SPRING PICNIC

A warm Saturday afternoon by a quiet lake was the scene for the Headquarters Company spring picnic.

Approximately 150 soldiers, wives, girl friends, and guests enjoyed the fine food and drink provided. They played baseball, volleyball, horseshoes and badminton, or just listened to the band which played most of the afternoon.

Crowds enjoy the fresh air, sunshine, food and activities at the Lake area.

With flashing spatula Sp5 Tom Oakley, displays his culinary artistry at the Headquarters Company picnic.

WACs AT TRRS

During the fall of 1944, a contingent of approximately 100 WACs (Womens' Army Corps) arrived at Two Rock Ranch to augment the several hundred Army personnel of the 2nd Signal Service Battalion in their war time duties. Amongst these highly trained radio technicians was T5 Louise Argiro, Watertown, Mass. Twenty-seven years later, Louise Canfield, Two Rock Ranch Station employee in the Consolidated Property Office, reminisced. Her memoirs ranged from her first awe-struck impression of Petaluma, "Oh what an antiquated place" through "The Company CO ran down the main street on post waving her hands", the CO had just heard that Japan had surrendered, World War II was over. While stationed at Two Rock, T5 Argiro met Sgt Kenna Canfield of Charleston, West Virginia whom she married on his return from overseas. Mrs. Canfield, an avowed Petaluman now, remained in the area after she was released from active duty in January 1946.

Louise V. Canfield at Dillon Beach 1944.


TWO ROCK


TATION 1942-1971

TWO ROCK DANCER TAKES FIRST PLACE

Specialist 4 Robert S. Tanenbaum, the editor of the TRRS Bugle, entered the 6th Army Entertainment Contest at Fort Ord February 20, 1971, as an Individual Specialty Act. His acrobatic satirical jazz discotheque dancing won first place in his catagory and was selected from the other 32 acts as the Best of Show.

Sp4 Tanenbaum was also selected to travel with the 6th Army Command Military Touring Show. He entertained as a comedian and dancer in shows at Ft. Ord, Ft. Lewis, Presidio of San Francisco, Ft. MacArthur, Ft. Baker, Oakland Army Depot, Madigan Hospital and Letterman Hospital. Working up to 3 shows a day, the group of 15 people entertained GIs, basic trainees, hospital patients and officers.

Bob is from Hackensack, N.J. and was an entertainer before entering the service. He has been working in clubs in the area in his free time and appeared on 2 Los Angeles TV shows in February.

Sp4 Robert S. Tanenbaum clowns around as part of his dance routines in the Command Military Touring Show. Here he portrays a disheveled trainee, and an exuberant drunk.

NCO CLUB SPONSORS PARTY FOR MEMBERS

The NCO Club sponsored a closing party for the male members of the Club, Friday night April 23. A local band provided music and specialty entertainment was brought from San Francisco for the show. A buffet and drinks made the affair very enlightening and highly entertaining.

BUGLE

TWO ROCK RANCH STATION

Petaluma, California 94952

LTC. JOSEPH F. RICHARDS, Commanding

1LT TIMOTHY L. JOHNSON, Officer in Charge

MSG JUAN A. MARTINEZ, NCOIC

SP5 THOMAS M. OAKLEY, Editor

PFC ROBERT S. TANENBAUM, Editor & Photographer

The BUGLE is authorized to be published monthly by and for the personnel of Two Rock Ranch Station. This newspaper uses Armed Forces Press Service, Army News Features Material. Articles with AFPS, ANS, or ANF credit lines and original material may be used by any medium, provided credit is given. The views and opinions expressed in this paper are not necessarily those of the Editor or Department of the Army. The BUGLE is paid for from non-appropriated funds and is printed by House of Printing, Petaluma, Calif. All photographs appearing in this paper are Official U.S. Army Photos unless otherwise credited.

MISSION STATEMENT

USASA TRRFS is an integral part of the world-wide network developed by the United States to provide rapid radio relay and secure communications for defense of the United States and the free world. Additional functions include monitoring transmission security and research into natural electric phenomena.

WEDDING BELLS

Wedding bells rang at Two Rock Ranch Station April 10, 1971 at 3:00 pm for Specialist 4 William A. Ellison and his lovely young bride Marie Emily Roberts.

The couple is from Baltimore, Md. where they grew up together. Sp4 Ellison, age 20, is the S-1 Clerk-Typist and his 19 year old bride was a secretary. They will take a short honeymoon trip to San Francisco before Bill is restationed at Fort Meade, Md. The couple plans to settle in Virginia when he gets out of the Army.

Easter eggs were in abundance in the grassy areas by the housing area April 10. Prizes were given to the lucky people who found them at the Easter Egg Hunt that afternoon.

SCOUTS FIX DAM AT SALAMANDER CANYON

Boy Scouts from Troop 42, Novato, rebuild the dam at Salamander Canyon. They spent 4 days and nights camping in the canyon, while they rebuilt paths, constructed camping areas, and even created a swimming hole.

Major Carlisle C. Taylor
2 March 1946
25 August 1946

Lt. Colonel Robert L. Crouch Jr.
13 August 1946
18 December 1947

Major Clarence W. Helland
19 December 1947
18 July 1948

Lt. Colonel Milton B. Sayers
19 July 1948
15 September 1948

STATION'S HISTORY

The post had been founded as a Signal Security Agency installation, with a mission to provide communications operators for the war in the Pacific. In 1945, Two Rock Ranch was redesignated a special installation and placed under the jurisdiction of the Army Security Agency.

With the end of the war, a program of permanent construction was started with the building of a modern, all-purpose Operations Building, consolidated Mess Hall and five permanent troop barracks. Since then, progress of permanent construction has expanded to add a Post Headquarters, Special Services Gym, tennis courts, 84 enlisted family housing units, 10 company and 3 field grade officer quarters, and most recently, a new Post Dispensary with all the modern facilities required for current needs.

The station today has stood as a small but modern ASA installation, and included most of the administrative, logistical, recreational, medical and religious facilities found on other installations of equal or larger size.

Just what the future of Two Rock Ranch may be no one knows at this time. However, for those of us who have served at Two Rock, we hope that any future endeavors achieved here will be performed in the same degree of military manner and proficiency.

Colonel Wiley H. O'Mohundro
11 July 1950
30 August 1954

Colonel Charles H. Rue
15 October 1956
30 September 1958

Colonel Keene H. Wilson
17 September 1966
30 June 1968

Lt. Col. William F. Vernau, Jr.
5 August 1968
19 September 1969

Lt. Col. Joseph F. Jewett, Jr.
19 September 1969
21 August 1970

Lt. Colonel Joseph F. Richards
6 September 1970
30 June 1971

Two Rock Closes; Use To Be Studied

Clausen Names Petaluma Panel

By Staff Correspondent

PETALUMA — Congressman Don Clausen (R-Crescent City) today named a special advisory committee to study the future utilization of Two Rock Army Ranch Station, which will begin a three-month phaseout period at the end of this month.

Closing of the communications facility means the loss of 332 military and 83 civilian jobs at an annual saving of $2.5 million.

Two Rock is one of nine small installations in four states whose closure is part of "realignment" within the Department of Defense, resulting from congressional cuts in the Defense budget.

The cuts were announced yesterday in Washington.

The announcement of the appointments came following receipt of official word from the Department of Defense that Two Rock Ranch Station, nine miles west of Petaluma, will cease operation as an active military installation despite the congressman's efforts and those of concerned Petaluma officials to retain the base.

A 17-member panel will be chaired by Petaluma attorney Arthur L. Lafranchi, and will include representatives from Sonoma County, the City of Petaluma, the Petaluma Chamber of Commerce, the city council, law enforcement officials, businessmen and private citizens.

Representing the county will be Supervisor Phil Joerger and former Supervisor George DeLong. City representatives will include Mayor Helen Putnam, city manager Bob Meyer, Councilmen Bob Brunner and Fred Mattei. Sheriff Don Striepeke and Petaluma Police Chief Larry Higgins will represent law enforcement and Pat Shannon and James McCaffery will represent the Petaluma Chamber of Commerce.

Petaluma businessmen Arthur Agnew, Gene Benedetti, Harold Mahoney and Art Parent will also serve on the special study group, as well as retired Col. Edward T. Davis, a former commander at Two Rock and past manager of the Chamber of Commerce.

In addition, the congressman's field representative in Santa Rosa, Gordon Tippit, will assist the panel as an ex-officio member.

In appointing the special advisory committee, the Redwood Empire congressman said:

"In spite of our joint efforts over the months to retain Two Rock, the decision has been made to close the base and we must now join together to determine the best possible use of this facility.

"Several alternative uses have been advanced but to insure that we reach a coordinated decision on what will be best for the economy and the people of Petaluma, I have asked this distinguished group of citizens to study the matter and advise me on a mutually acceptable course of action.

"So that every person has an opportunity to be heard on this question who wished to do so, I have asked that open public hearings be conducted and that interested citizens be invited to attend and participate.

"We have already contacted key state and Defense officials and they have agreed to meet with the study group and assist in every way possible to make the transition as rapid and smooth as possible.

"Out of the work to be per-

(Continued on Page 8, Col. 5)

REALTY CONTROL FILE SUMMARY
(Land Acquisitions and Disposals)

DATE OF RELAUDIT: 1 Sep 71
AUDIT NO.: 2800

RESERVATION NAME: TWO ROCK RANCH STATION

LOCATION: CALIFORNIA, Sonoma and Marin Counties
10 Mi NW of Petaluma

DISTRICT: SACRAMENTO

DIVISION: SOUTH PACIFIC

OFFICIALLY DESIGNATED BY:
DA G.C. No. 60 dated 16 Aug 1954

TYPE: ☒ ARMY MIL ☐ AF ☐ ARMY-CIVIL ☐ OTHER (specify)

PURPOSE: Radio Receiving Station

JURISDICTION: Exhibit "C"

MAP: EXHIBIT "F"

RELOCATIONS:

MISCELLANEOUS: Exhibit "D"

LAND OWNERSHIP AND COST DATA

ACQUISITION (Exhibit A)

AREA		DOD CATEGORY CODE	COST	RENTAL
876.41	Fee	911	$117,034.00	
0.00	Li (1)	913b	0.00	
0.00	Pe (1)	913b	0.00	
876.41	Total Acres		$117,034.00	

DISPOSAL (Exhibit B)

876.41	Fee	911	$117,034.00	
0.00	Li (1)	913b	0.00	
0.00	Pe (1)	913b	0.00	
876.41	Total Acres *		$117,034.00	

NET

REMARKS

* 835.37 Acres, Fee, accountability assumed by WAA on 25 Apr 1947.
5.36 Acres, Fee, conveyed to Two Rock Ranch Union School District by QCD dated 11 Dec 1951.
835.68 Acres, Fee, License (1) no Area and Permit (1) no Area transferred to U.S. Coast Guard, Dept. of Transportation on 29 July 1971 for U. S. Coast Guard Training Center.

INSTALLATION INVENTORY OF MILITARY REAL PROPERTY

For use of this form, see AR 405-45; the proponent agency is Office of the Chief of Engineers.

1 INSTALLATION NUMBER	4 NAME OF INSTALLATION	5. COMM	6. AGENCY	7. TYPE	8. S.R.O.	9. FUN.	10. FUNCTION NAME	11. AS OF DATE	12. PAGE NUMBER
1 05330	T-O ROCK RANCH STA								

2	13. NAME OF NEAREST CITY	14. DIST.	15. DIRECT	16. COUNTY OR POLITICAL DIVISION	17. STATE	20. YEAR ACQUIRED	21. RU	22. OPERATOR	23. STATUS	24. COMMAND
2										

* CHANGE CODE	CATEGORY CODE NUMBER	TYPE OF OWNERSHIP	TYPE OF CONSTRUCTION	ASSIGNED BUILDING OR FACILITY NUMBER	BUILDING CODE	CATEGORY DESCRIPTION	AREA: UNIT OF MEASURE	AREA: TOTAL	AREA: OUT GRANTS	AREA: DIS CODE	AREA: VACANT	OTHER MEASURE: UNIT OF MEASURE	OTHER MEASURE: TOTAL	COST TO U.S. GOVERNMENT: TOTAL (000)	COST TO U.S. GOVERNMENT: IMPROVEMENTS ON LEASED OR RENT-FREE LAND (000)	ANNUAL RENTAL RECEIVED (00)	ANNUAL RENTAL PAID (00)	APPRAISED OR ESTIMATED VALUE (000)	YEAR BUILT OR ACQUIRED	CONDITION	NO. OF FLOORS	MATERIAL	REMARKS
	21413	1	P	175		WASH PLATFORMS								22					965	U			
	21414	1	P	171	B	DISPATCH OFFICE	SF	116						77					965	U	1	C	
	21490	1	P	165	B	OTHER	SF	5,38						1329					966	U	1	C	
	# 4			# 3				10874						2780									
	# 4			# 3				10874						2780									
	215					INT/INS SEP OPN																	
	21920	1	P	160	B	POST ENGR FAC	SF	7161						1491					965	U	1		
	21920	1	P	161	B	POST ENGR FAC	SF	2100						147					965	U	1	W	
	# 2			#				9261						1638									
	# 2			#				9261						1438									
	422					AMMO STOR INST																	
	42235	1	P	539	B	READY MAGAZINE	SF	134						37					965	U	1		
	42240	1	P	540	B	FIXED AMMO MAG	SF	136						37					965	U	1		
	# 2			#				272						74									
	# 2			#				272						74									
	442					COV STOR/INST																	
	44220	1	P	165	M	GEN PURP WHSE	SF	5000						900					966	U	1		
	44240	1	P	152	B	FLAM MAT STMS	SF	3[illegible]						9					96[illegible]	U	[illegible]	C	

E-15

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
FORMERLY USED DEFENSE SITES

INVENTORY PROJECT REPORT

TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA

SITE NO. J09CA098300

PREPARED BY
ENVIRONMENTAL DESIGN SECTION, GEOTECHNICAL BRANCH
U. S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
7 DECEMBER 1994
(Revised December, 1995)

SITE SURVEY SUMMARY SHEET
FOR
Two Rock Ranch Station
Sonoma and Marin Counties, CA
DERP-FUDS SITE NO. J09CA098300

SITE NAME: Two Rock Ranch Station, Two Rock Ranch Receiving Station

LOCATION: The site is located approximately 10 miles northwest of the City of Petaluma, in Sonoma and Marin counties.

SITE HISTORY: Two Rock Ranch Station was formerly a dairy and poultry farm before the U.S. Army Signal Corps acquired a total of 876.41 acres in eight declarations of taking between 1945 and 1948. The site was used as a radio receiving and relay station. In 1947, 35.37 acres of the site were transferred to the War Assets Administration (WAA). In 1951, 5.36 acres were conveyed to the Two Rock Ranch Union School District to build an elementary school. In July 1971, the 35.37 acre parcel from the WAA, the remaining 835.68 acres, and all easements were transferred to the Department of Transportation (DOT) for U.S Coast Guard use as a training center. Improvements to the site included approximately 6 administrative buildings, 99 family housing units, 2 original farm buildings, wastewater treatment facility upgrades and improvements, and a 6-inch water pipeline on an easement extending from the City of Petaluma. In 1985, the DOT conveyed two parcels, one 35.37 acres and another 31.0 acres, to private individuals.

Prior to 1965, wastewater on the site was treated with an Imhoff tank and evaporation pond. In 1965, the Imhoff Tank was replaced by an oxidation pond. The effluent was discharged to the South Branch Stemple Creek. The USCG has since improved the facilities to meet the demand. Currently the effluent is reclaimed for irrigation on the site through sprinklers.

The USCG has contracted out for the removal of all abandoned underground storage tanks (UST's). This aggressive tank removal project ceased in November 1992 when the contractor went bankrupt. The bonding company is responsible for completing the remaining work, and has selected a contractor to complete the project. According to Roy O'Conner of the California Regional Water Quality Control Board in Santa Rosa, as of July, 1995 a total of 47 tanks have been removed. There is one tank remaining located near the former base theatrer, on Coast Guard property, that is awaiting removal. The USACE can not reimburse the USCG for any past remedial activities.

SITE SURVEY SUMMARY SHEET
FOR
Two Rock Ranch Station
Sonoma and Marin Counties, CA
DERP-FUDS SITE NO. J09CA098300

SITE VISIT: On 1 October 1991, Randi Beuttler and Jim Bergstrom of Radian Corporation visited the site. The site is divided among four owners: the U.S. Coast Guard (USCG) Training Center, Mr. Robert Smith (Sheep Ranch), the Two Rock Union Elementary School, and the Smojver/Suarez cattle ranch. The Radian personnel met with Mr. Robert Smith, Mr. Stephen Rosenthal (Superintendent of the Two Rock School), and Lt. Herring of the USCG. All useable land not in use by the USCG is leased to local dairy farmers. A more detailed site map is shown in Figure 3.

Mr. Smith was assigned to the USCG Training Center before his retirement from active duty. Mr. Smith stated that the site had been largely unused; most military buildings and activities were confined to the area that is currently in use. Mr. Smith further stated that water wells had been drilled in various areas throughout the original site; he believed many of these wells had no water and were never used.

On 26 October 1993, the site was revisited by Jennifer Faler and Karole Ward of the Environmental Design Section, U.S. Army Corps of Engineers, Sacramento District. Corps personnel met U.S. Coast Guard personnel: Patrick Nelligan (Hazardous Waste Coordinator), Ltjg. Charles Littlefield (Civil Engineer), and Steve Ohms (Section Chief of Design Engineering) for a briefing on the status of the tank removal project.

Indoor and outdoor firing ranges are also located on the site that were used by the Army. The indoor range is contained in a Quonset hut where bullets were deflected off of a metal plate into a pile of sand (approximately 3 Cubic Yards). The sand and metal plate are separated from the rest of the hut, which is used for storage, by wire fencing and a locked door. The sand contains spent bullets. The hillside at the former location of the outdoor firing range is now overgrown with trees. According to Petrick Nelligan of the Coast Guard, neither firing range has been used since Army occupation ceased in 1971.

The site visit ended in the Facilities Engineering Office (Bldg. T150). Here, the USCG supplied maps of the facility, results of some of the soil testing, and a xerox copy of an aerial photograph taken in 1960 by R.M. Towill, Inc. of San Francisco, CA of the Two Rock Ranch Station.
On 27 July 1995 the site was revisited by Barbara Blair and Jennifer Faler of the USACE who met with U.S. Coast Guard Commander Bill Mine, Patrick Nelligan (Hazardous Waste

Coordinator), Ltjg. Charles Littlefield (Civil Engineer), and Steve Moore (A painter who has been on the site since 1964). The site visit was prompted by the Coast Guard's discovery of a "new" map (a 1952 Army Detail Site and Building Map, Fig. 3) showing areas of environmental concern, primarily a landfill. In addition, Commander Mine believes the site is going to be closed in a few years (possibly 1998) and wants to make sure all environmental concerns that were caused by the Army are addressed. Initially the Corps personnel discussed the new areas of concern and looked at several maps and aerial photos from the Army's occupation, that the Coast Guard had on file.

Mr. Nelligan led us on a tour of the site. The primary area of concern is a landfill that had been spotted on a map ("Key Map" dated 15 Sept. 1952) that the Coast Guard had in their map files. The landfill approximates the shape of a teardrop and is 200' long and 150' at its widest point. It is located northeast of the Facilities Engineering Building and the map shows a road surrounding it. A fuel oil map shows two ammunition storage buildings were located(Bldg. # 539 and #540) outside the perimeter of the landfill. Mr. Moore stated that small arms ammunition was stored in these buildings. Commander Mine mentioned there was debris on top of the landfill, however we were unable to spot this on the tour because the landfill area was overgrown with brush. Steve Moore stated that domestic garbage was primarily hauled here as well as construction debris, and vegetation. Mr. Moore stated that the Coast Guard has never used the landfill. A telephone interview was conducted with Mr. Stan Mossi who started work on the site in 1958 and was there until his retirement in the 80's. He stated that the Army hauled its garbage to the on-site site landfill until the mid-60's when it was then hauled offsite to the County dump. He further substantiated Steve Moore's statement that the Coast Guard has not ever used the landfill. According to Mr. Mossi, garbage was thrown into unlined pits and then burned, covered with dirt, and the process repeated. Since the landfill has not been beneficially used by the Coast Guard, it is eligible for the FUDS program.
Also seen on the Key Map was an incinerator (T-360) located in the southwest corner of the site in an area known as Salamander Canyon. An aerial photo from 1960 shows a square area that appears to be a concrete pad in that location. No visible signs of this incinerator were seen on the tour. Steve Moore stated that the incinerator was not there when he started in 1964.

Mr. Moore also stated that another incinerator was located on the northeast side of the

former Operations Building (Bldg. #500). Building #500 is currently used by Santa Rosa Junior College as a training facility. No visible signs of an incinerator were seen here either. Mr. Moore stated that both incinerators were used to burn top secret papers. Mr. Mossi concurred this. From the various site maps as well as a map of Building #500, it appears the incinerator was moved from within Building #500 to the outdoors.

The on-site photo lab has been beneficially used by the Coast Guard and thus would not be FUDS eligible.

The wash rack located next to the motor pool is currently used by the Coast Guard and thus would not be eligible for the FUDS Program.

Several spring houses were visible on the site and are indicated on the Key Map. They were covered with wooden boxes and Mr. Nelligan said they were not being used.

Located just south of Tomales Road, in the middle portion of the site, was the location of an RV park and two septic tanks. The Key map shows that the Army used this area for family quarters. The Coast Guard used this area for a RV park. They also used the septic tanks. Sticking out of the ground approximately 4 feet, in the middle of the park, is a 1" diameter pipe wrapped with dilapidated yellow plastic tape. Mr. Nelligan did not know what this pipe was for. In a telephone interview, Stan Mossi stated the pipe was part of the water system. Currently the land in the old RV park area is used by a local model airplane club to fly model planes.

Another site visit was made on August 1, 1995 by Barbara Blair of USACE to review the large map collection that exists at the Facilities Engineering Building and to re-examine the landfill. A different path was found that would enable a better look at the debris sitting on the landfill. Also visiting the site were David Evans and Roy O'Conner of the State Regional Water Quality Control Board. The Water Board Representatives were primarily interested in the landfill. Patrick Nelligan led us to the landfill. Debris, including reinforced concrete columns, wood, and plastic buckets was scattered on the area. Along the perimeter of the landfill were two ammunition storage buildings (Bldgs. #539 and #540).

SITE SURVEY SUMMARY SHEET
FOR
Two Rock Ranch Station
Sonoma and Marin Counties, CA
DERP-FUDS SITE NO. J09CA098300

Building #540 and the road that led up to it have been removed completely and the outline of the building location is easily visible. A metal culvert is remaining from the road that led up to this building. The foundation for what appears to be Building #539 is still present and is right underneath a large evergreen tree. Adjacent to this building is what appears to be a vent pipe and a square concrete sump approximately 3x3x4 feet in size. The sump has concrete walls and the bottom is lined with large smooth rocks on a soil bottom. Several of the rocks' surfaces appear to be painted white.

From the interviews with Stan Mossi and Steve Moore, who were both on site during military occupation, it can be concluded that there were only small arms fired/stored on site, thus further OE investigation at the ranges seems unnecessary; however Huntsville Center should be consulted for an evaluation of the ammunition storage buildings. A RAC score of 4 has been assigned and is attached.

Some of the major excavation areas where tank removals have been completed were then seen. All the contaminated soil from the excavations of the heating oil (diesel) tanks is located near the Quonset Hut. The piles of soil have plants and small trees growing on them. Mr. Nelligan said that a 10 milimeter liner has been placed under the soil piles. He also added that this is the extent of their soil remediation to date - allowing the soil to aerate. The amount of soil is estimated to be 7500 cubic yards. There were five tanks excavated that contained gasoline. The soil from these excavations was disposed of at a Class 3 disposal facility in 1992.

The tour finished at the Facilities Engineering Bldg. where Ms. Blair spent the rest of the afternoon looking over their extensive map collection. Many maps were available of when the Army occupied the site. Several maps of the Operations Building (Bldg. #500) indicated the incinerator. From the maps, it appears that at one time the incinerator was housed within the building. Later the incinerator was moved outdoors and placed on a rectangular concrete patch at the end of a walkway. Currently, there is a storage case in this spot.
Mr. Nelligan stated that all military installed transformers were removed during the period of 1987-1989. Copies of the test results of the contents of the removed transformers was provided and indicated that some of the transformers did contain PCB's. As this work has been completed, it is not eligible for reimbursement under the FUDS program.

SITE SURVEY SUMMARY SHEET
FOR
Two Rock Ranch Station
Sonoma and Marin Counties, CA
DERP-FUDS SITE NO. J09CA098300

CATEGORY OF HAZARDS: HTRW, CON/HTRW, OE

HTRW: A site investigation of the landfill is to be performed to determine if and what type of contamination exists.

The sand pile in the Quonset Hut is to be removed and disposed of properly. It most likely contains small arm casings.

Further archives searching will be performed to determine the use of the sump located adjacent to building #539.

CON/HTRW: Ground penetrating radar will be used in the area of the ammunition storage (Building #539) to determine whether or not there is an UST is present.

OE: The Huntsville Center should evaluate the small arms ammunition storage buildings to determine whether ammunition may have been left buried on site. There is no evidence of ammunition or ammunition storage containers at ground surface. A risk assessment score of 4 has been assessed for this site.

AVAILABLE STUDIES AND REPORTS:

- USCG Training Facility Master Plan, Prepared by TRACEN Petaluma, April 1985.
- U.S. Army Corps of Engineers, INPR for Two Rock Ranch Station,Prepared by Radian Corporation, August 1992.
- Science Applications International Corporation (SAIC) Environmental Compliance Evaluation and Assessment of past Practices for U.S. Coast Guard Training Center,

Petaluma, February 5, 1993.

PA POC: Mr. William Mullery, U.S. Army Corps of Engineers, Sacramento District. (916) 557-6944.

FINDINGS AND DETERMINATION OF ELIGIBILITY
FOR
Two Rock Ranch Station
Sonoma and Marin Counties, CA
SITE NO. J09CA098300

FINDINGS OF FACT

1. Two Rock Ranch Station was established between 1945 and 1948 for a total acreage of 876.41 acres. The site was located 10 miles northwest of the City of Petaluma, in Sonoma and Marin counties, California.

2. The site was used as a Radio Receiving and Relay Station by the Signal Corps. Improvements to the site included both permanent and temporary buildings, roads, wastewater treatment facility improvements, base housing, and a city water connection.

3. In 1947, 35.37 acres were transferred to the War Assets Administration (WAA). In 1951, an additional 5.36 acres were conveyed to the Two Rock Ranch Union School District. In 1971, the 35.37 acre parcel from the WAA, the remaining 835.68 acres and all easements were transferred to the Department of Transportation (DOT) for the U.S. Coast Guard. In 1985, one 35.37 acre and on 31.00 acre parcel was conveyed by DOT to private individuals. The site is occupied by a sheep ranch, cattle ranch, elementary school, and the USCG Training Center.

DETERMINATION

Based on the foregoing findings of fact, the Two Rock Ranch Station Site has been determined to be a formerly used defense site by the Department of Defense. Therefore, it is eligible for the Defense Restoration Program for Formerly Used Defense Sites, established under 10 U.S.C. 2701 et seq.

_____
Date

_____
PETER T. MADSEN
COL(P), EN

Commanding

PROJECT SUMMARY SHEET
FOR
DERP-FUDS HTRW PROJECT NO. JO9CA098301
Two Rock Ranch Station
Petaluma, CA
Site No. JO9CA098300

PROJECT DESCRIPTION: There are three areas of HTW concern on the site:

An unlined landfill/burnpit is located northeast of the Facilities Engineering building (Bldg. #T150). It approximates the shape of a teardrop and is about 200' long by 150' wide. A road once surrounded the landfill. Reportedly, mostly household garbage was put in the landfill and also construction debris and vegetation. Garbage was placed in the unlined pits, then burned, then covered and the process repeated. Currently the landfill has scattered debris on the surface of it and is overgrown with brush.

There is an indoor firing range (Quonset Hut) located on the site. Bullets were reflected off a metal plate into a pile of sand (approximately 4 to 5 CY). The sand and metal plate are separarted from the rest of the hut, which is currently used for storage, by metal bars and a locked gate. The sand contains bullets and could be a lead hazard.

A sump is located adjacent to the foundation of a former ammunition storage building (Bldg. #539). The sump is approximately 3x3x4 feet. It has concrete walls and a soil bottom. Large smooth rocks line the bottom of the sump. Its use is unknown.

PROJECT ELIGIBILITY: The landfill was started by the U.S. Army and used only by the Army. This was substantiated by Mr. Stan Mossi and Mr. Steve Moore. Both were present on site during part of the Army's occupation as well as part of the Coast Guard's occupation of the site. Mr. Mossi actually hauled garbage to the landfill for the Army during the period of 1958 to 1960. Mr. Littlefield of the U.S. Coast Guard also stated that the Coast Guard has hauled their trash offsite since their presence began.

The Water Board Representative, Roy O'Conner, stated that the water table for the area is estimated to be 10 feet.

According to Coast Guard personnel, the indoor firing range was installed by the Army and used as a firing range solely by the Army.

According to Coast Guard personnel, the ammunition storage building was installed by the Army and used solely by the Army.

POLICY CONSIDERATIONS: Two ammunition storage Buildings (Bldgs. #539 and #540) were located on the perimeter of the landfill. Building #540 has been removed completely while the foundation remains of building #539. The land adjacent to the landfill is leased from

the Coast Guard by two crop farmers.

PROJECT SUMMARY SHEET
FOR
DERP-FUDS HTRW PROJECT NO. JO9CA098301
Two Rock Ranch Station
Petaluma, CA
Site No. JO9CA098300

Collaboration with CEHNC may be required to remove the sand in the Quonset Hut.

PROPOSED PROJECT:

A site investigation is to be performed at the landfill/burnpit site.

The sand is to be removed from the indoor firing range, sampled, and disposed of properly

Archives search to be performed to determine the use of the sump, and whether it is a contamination hazard, located adjacent to Building #539.

EPA FORM 2070: Attached.

DD FORM 1391: Attached.

PA POC: William Mullery, CESPK-ED-EB, US Army Corps of Engineers, Sacramento District, (916) 557-6944.

PROJECT SUMMARY SHEET
FOR
DERP-FUDS CON/HTRW PROJECT NO. JO9CA098302
Two Rock Ranch Station
Petaluma, CA
Site No. JO9CA098300

PROJECT DESCRIPTION: There are two areas of CON/HTW concern on the site:

There is a potential UST located at the former ammunition storage building #539. Only the foundation is left of this building. What appears to be a vent pipe is sticking out of the ground adjacent to the building. There is a sump located adjacent to the foundation approximately 3x3x4 feet in size with concrete walls with smooth large rocks lining a dirt bottom. Several of the tops of the rocks were white, possibly painted.

PROJECT ELIGIBILITY: The ammunition building was installed by the Army and used solely by the Army, reportedly for the storage of small arms ammunition.

POLICY CONSIDERATIONS: None.

PROPOSED PROJECT: Geophysical survey is to be performed at building 539 to determine if an UST is present.

DD FORM 1391: Attached.

PA POC: William Mullery, CESPK-ED-EB, US Army Corps of Engineers, Sacramento District, (916) 557-6944.

PROJECT SUMMARY SHEET
FOR
DERP-FUDS OE PROJECT NO. JO9CA098303
Two Rock Ranch Station
Petaluma, CA
Site No. JO9CA098300

PROJECT DESCRIPTION: There is one area of OE concern on the site:

There is a potential for buried small arms ammunition at the former ammunition storage buildings #539 and #540. Only the foundation is left of building # 539, and building # 540 has been completely removed. Huntsville Center can best determine whether an archive search or site visit are necessary.

PROJECT ELIGIBILITY: The ammunition building was installed by the Army and used solely by the Army, reportedly for the storage of small arms ammunition.

POLICY CONSIDERATIONS: None.

PROPOSED PROJECT: Refer to Huntsville Center for determination whether an archive search and site visit are warranted.

DD FORM 1391: An estimate has not been prepared for this project. The Huntsville Center would be in a better position to prepare an estimate after their evaluation of a course of action to follow.

PA POC: William Mullery, CESPK-ED-EB, US Army Corps of Engineers, Sacramento District, (916) 557-6944.

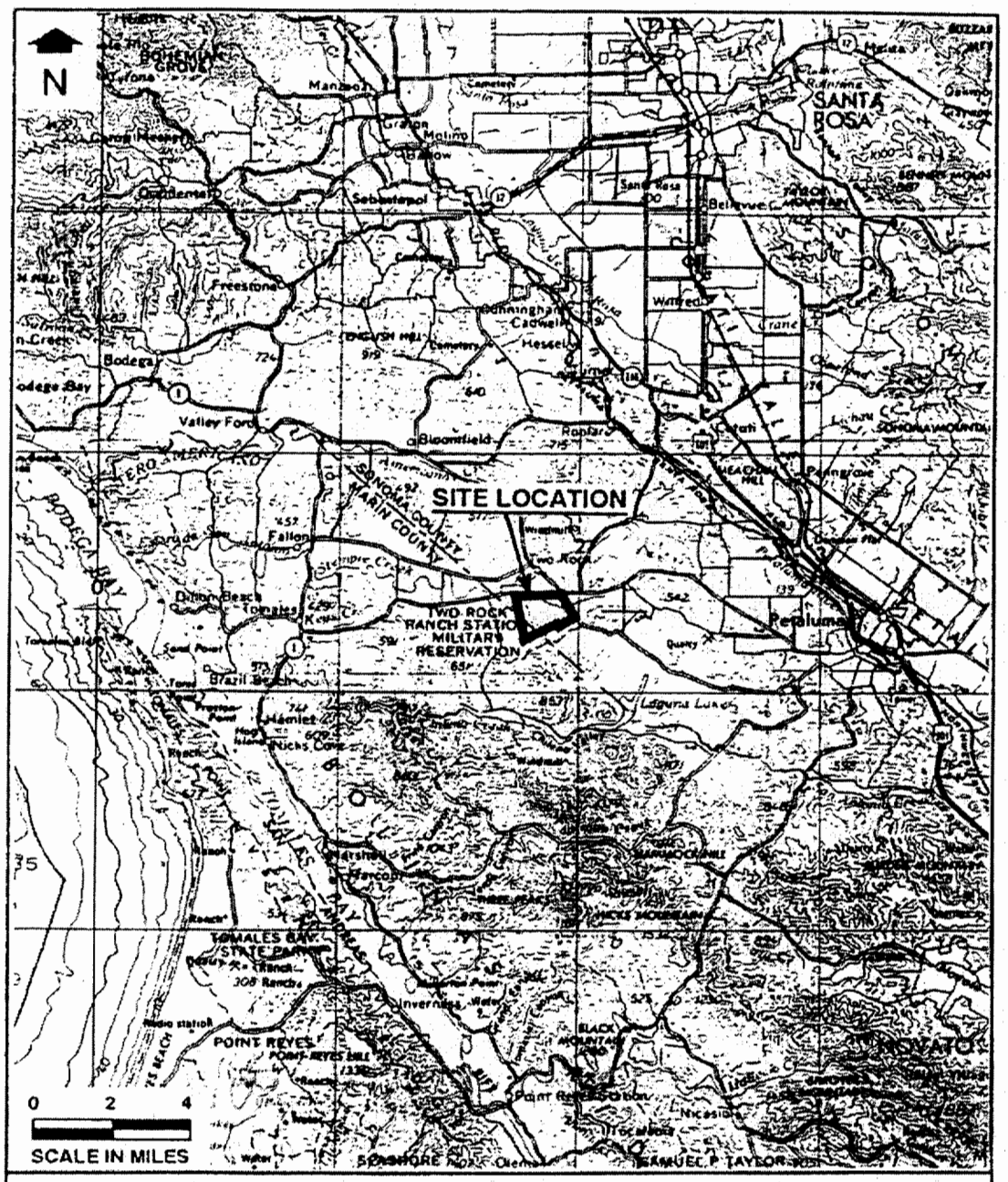


Figure 1. Location Map - Two Rock Ranch Station
Site No. J09CA098300

SOURCE: USGS 1:250,000 Scale Series Topographic Map, Santa Rosa, CA Quadrangle

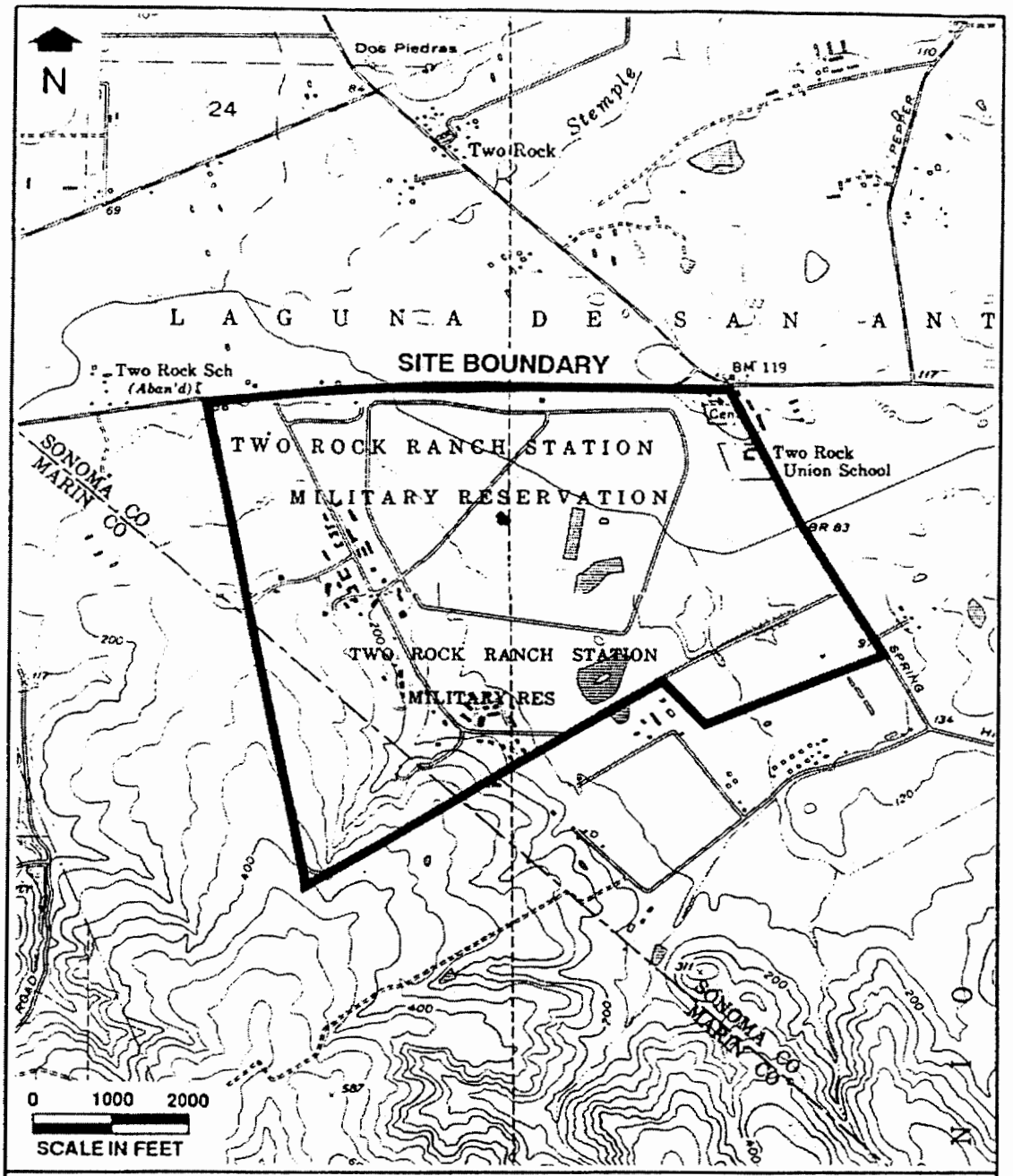


Figure 2. Site Map - Two Rock Ranch Station
Site No. J09CA098300

SOURCE: USGS 7.5 Minute Topographic Maps, Point Reyes NE, CA and Two Rock, CA Quadrangles

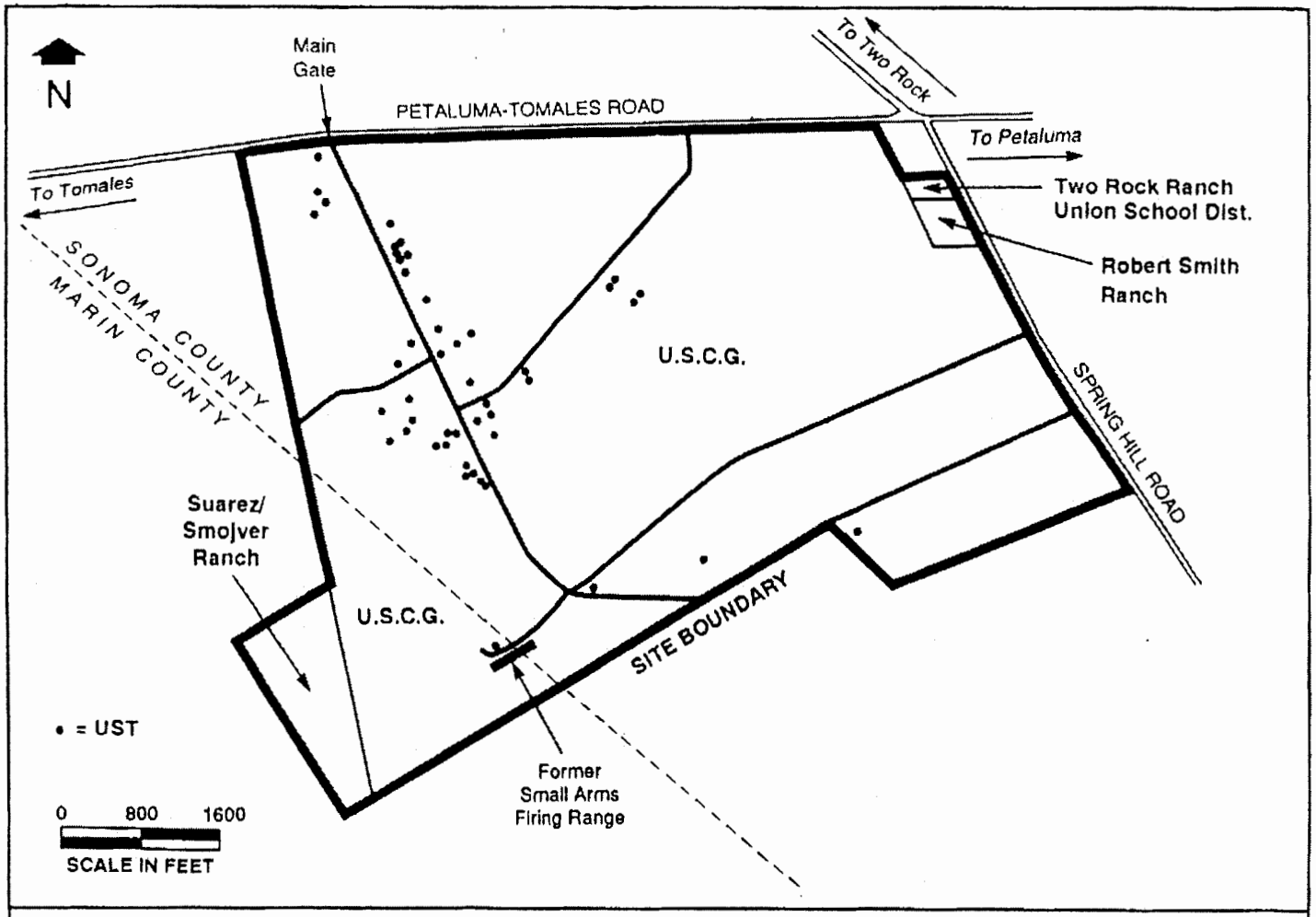


Figure 3. Detailed Site Map - Two Rock Ranch Station
Site No. J09CA098300

Two Rock Ranch
Site Visit Notes:
7/27/95

Present: Jennifer Faler, Environmental Engr, Army Corp of Engrs
Barbara Blair, Environmental Engr., Army Corp. Of Engrs
Ernest, Summer Hire, Army Corp. Of Engrs
Commander Bill Mine, U.S. Coast Guard
Phil Littlefield ,Civil Engr, U.S. Coast Guard
Pat Nelligan (Haz Mat Coordinator) 4 ½ years on site
Steve Moore (painter, started on site in Sept 1964 - during army occupation)

Premise of site visite: Two Rock called the Army Corp. Stating they had found a "new" map (the Detail Site and Building Use Map, 1952) showing the locations of some areas of environmental interest.

First went into conference room and looked at the maps we had and some of the maps they had. Phil, Pat and Commander Mine showed us on the maps where the locations of the areas of interest were. Then went out to look at these areas.

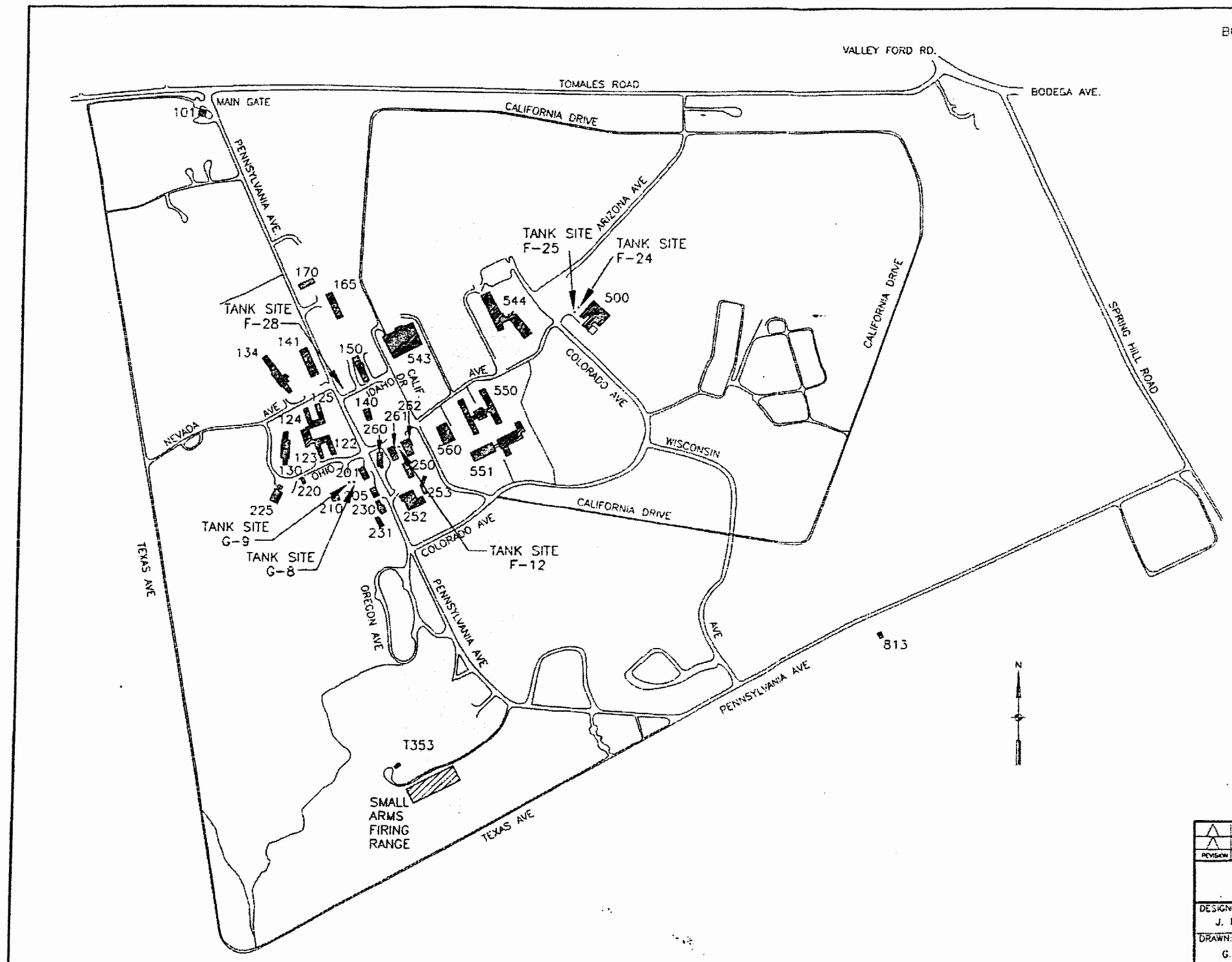
* **2 incinerator areas**: One in Salamander Canyon (T-360) shows up on the key map. Steve Moore stated there was another one on the northeast side of building 500 that is not on the key map. We examined both areas and found no evidence of any incinerators. But in an aerial photo from 1960 it looks like a concrete pad is located at site T-360. Mr. Moore stated that the incinerators were used to burn top secret papers. CONCLUSION: SINCE THEY JUST BURNED PAPER: WOULD NOT BE CONSIDERED A PRESENT DAY THREAT TO THE ENVIRONMENT.

* **a landfill**: The Coast Guard states that the landfill was used only during army occupation. When the Coast Guard came in 1971, they themselves hauled garbage off site to the county landfill. After some time they hired a contractor to haul the garbage to the county landfill. CONCLUSION: LOOKS LIKE HTRW PROJECT.

* **the pistol range , 1000"**: located in Salamander Canyon (T-350)
and the quonset hut CONCLUSION: REPORTED TO BE JUST SMALL ARMS - NEED TO CHECK IF QUALIFIES AS AN OEW PROJECT.

* **an antenna field** :Mr. Littlefield stated that the antennas were removed in 72 or 73. Remnants left include 7 concrete antenna stays located in the oxidation ponds. There are also the remnants of 2 wooden posts located east of building 500. Commander Mine thought that there might be transformers or capacitors associated with the antennas still left on site. CONCLUSION: DISCUSSED WITH BILL MULLERY, HE DOES NOT THINK ANY TRANSFORMERS OR CAPACITORS WOULD BE LEFT OVER. WHAT IS LEFT WOULD BE BD/DR.

* **2 septic tanks**: area east of T-540 that was an R.V. park. Mr. Moore stated that the R.V. park was used after the Army left until about 1978. An aerial photo from 1980 shows the R.V.s still sitting on site. There is also a steel pipe about 1 inch in diameter sticking out of the ground about 4 feet. It is covered with a yellow plastic type wrapping that was peeling away. CONCLUSION: NOT FUDS ELIGIBLE BECAUSE OF BENEFICIAL USE.



BUILDING LOCATOR

101	SECURITY
122	MEDICAL SERVICES SCHOOLS
123	MARITIME LAW ENFORCEMENT SCHOOL
124	BARRACKS
125	INSTRUCTOR OFFICES
130	BEQ 5
134	CONSOLIDATED CLUB
140	COMMAND STAFF
141	BOO/CPOO
150	PERSONNEL SUPPORT CENTER FACILITIES ENGINEERING
165	SUPPLY
170	MOTOR POOL
201	FIRE STATION
205	CREDIT UNION
210	AUTO/HOBBY SHOP
220	CLEANERS, TAILOR SHOP, CABLE TV
225	CLINIC
230	EXCHANGE RETAIL STORE
231	MINI-MART
232	DELI/GAS STATION
250	POST OFFICE LIBRARY MORALE, WELFARE, RECREATION
251	GYMNASIUM
252	TENNIS COURTS
253	SWIMMING POOL
260	CHAPEL
261	MOVIE THEATER
500	RADIOMAN SCHOOL
543	"JULIET NICHOLS BUILDING"
544	INFORMATION TECHNOLOGY SCHOOLS
551	BEQ
550	BEQ
560	GENERAL MESS
813	CHIEF'S HUT

REVISION	DATE	DESCRIPTION	BY	BY

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: J. FALER
DRAWN: G. COX
CHECKED: J. FALER

TWO ROCK RANCH STATION PETALUMA, CALIFORNIA

FIGURE 3
DETAILED SITE MAP

SUBMITTED: DATE APPROVED:
CHIEF, ENVIRONMENTAL DES. SECT

SCALE NONE SPEC NO.
SHEET FILE NO.

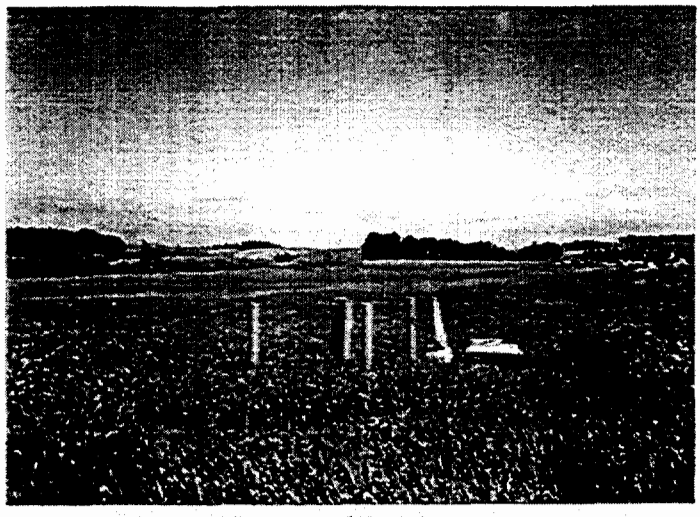
C:\AC12\USR\ROCKFJ00.DWG, PLOT:1=1

TC #1676-04

FOURTH QUARTER GROUND WATER MONITORING REPORT (LAN-MWI AND LAN-MW2)

for

United States Coast Guard Training Center Petaluma
Petaluma, California



WORK ORDER: DTCG 88-97-N-QE4N20
CONTRACT: DTCG 88-97-D-6AL185

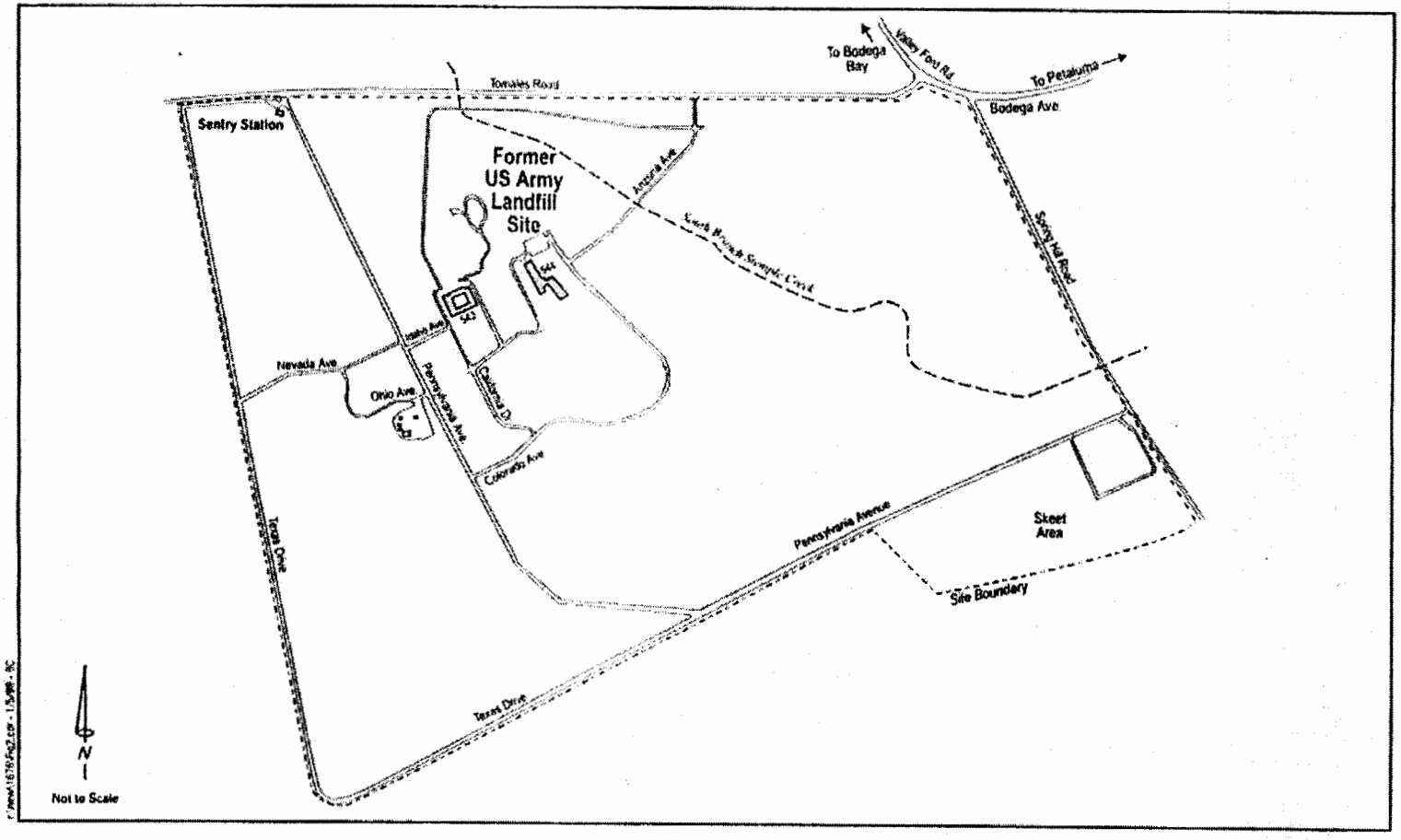
Prepared for:

United States Coast Guard
Civil Engineering Unit, Oakland
2000 Embarcadero, Suite 200
Oakland, California 94606-5337

June 1999

Prepared by:

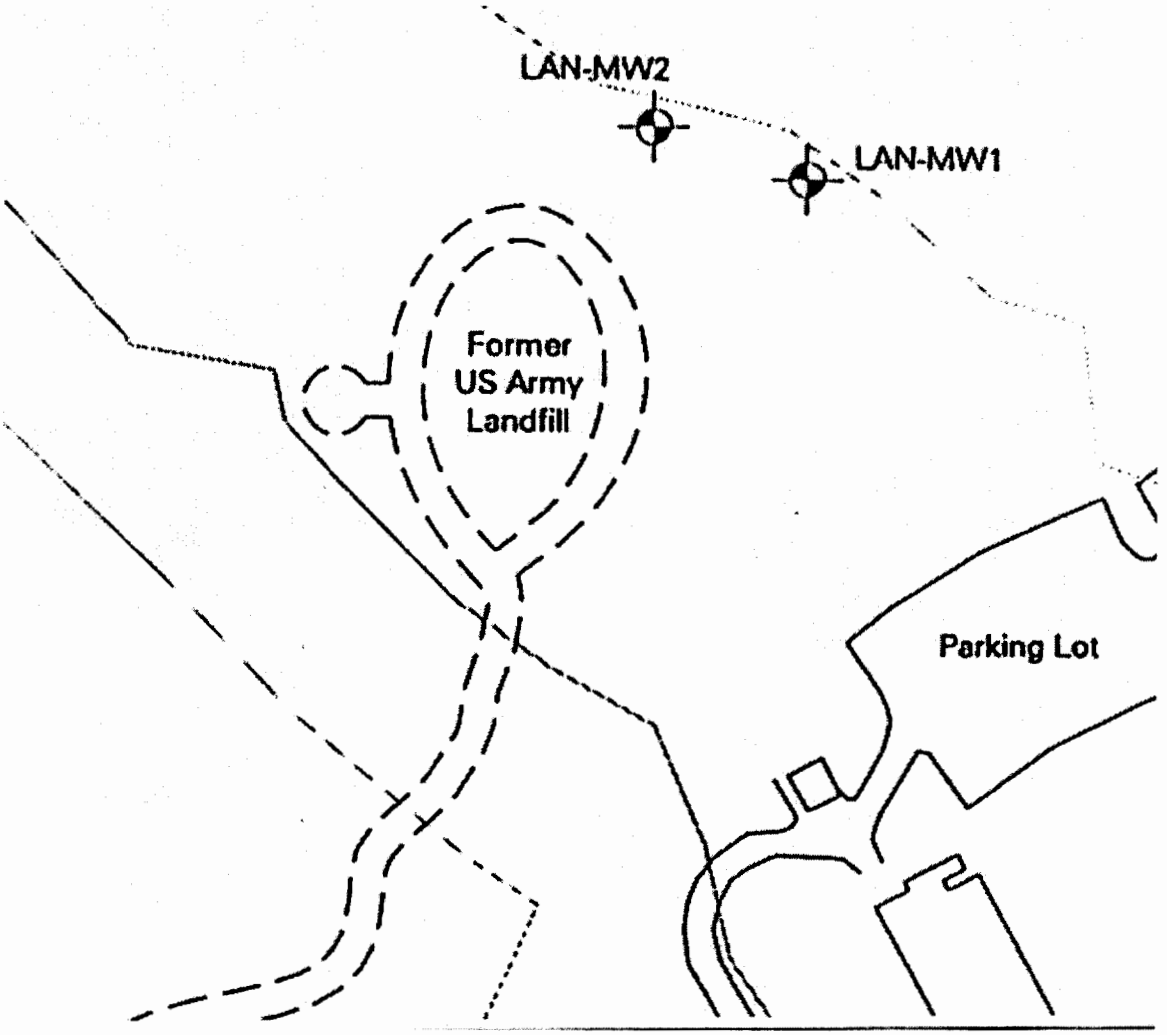
Tetra Tech, Inc.
180 Howard Street, Suite 250
San Francisco, California 94105-1617

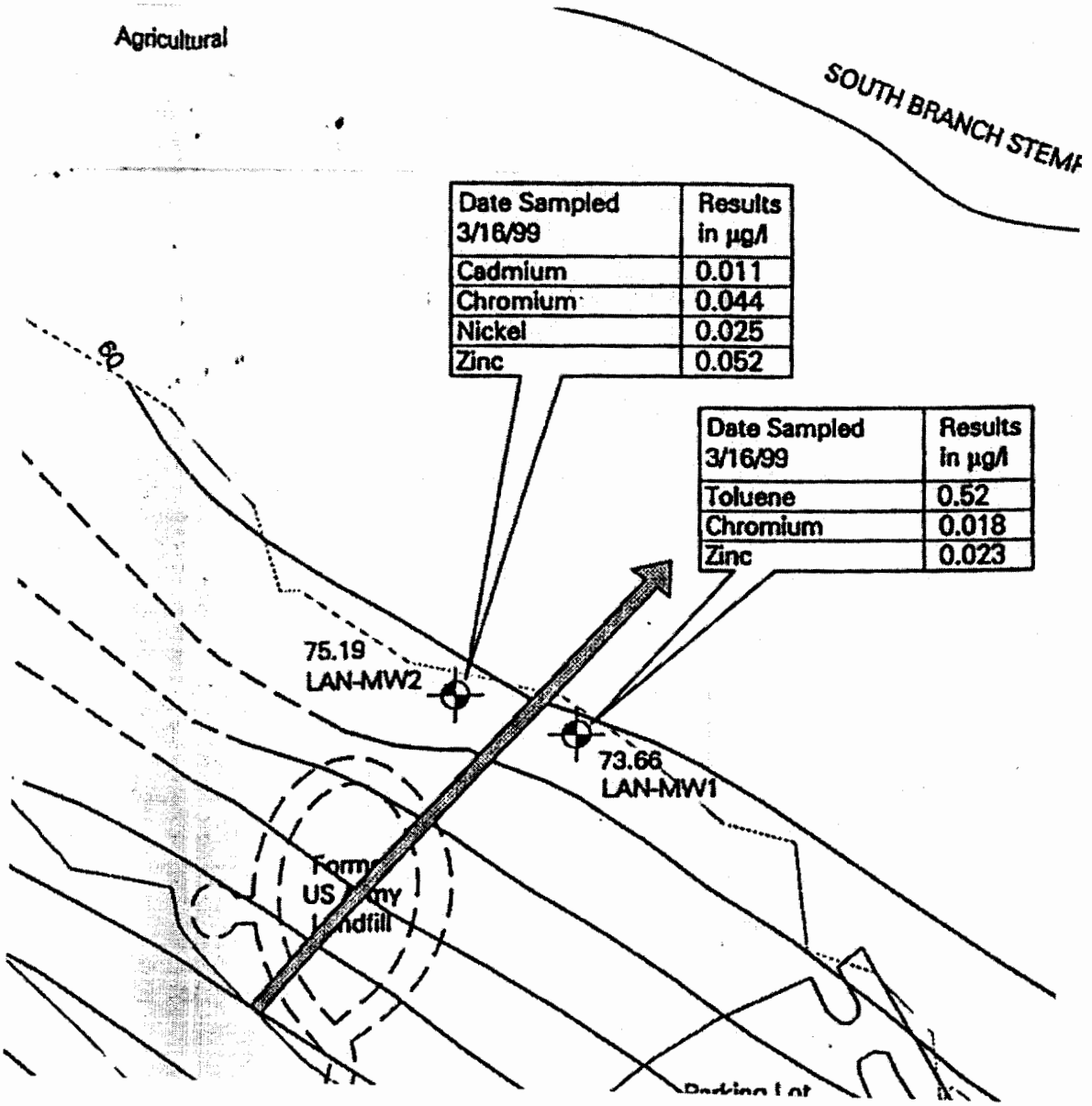


Site Plan
USCG Training Center Petaluma
Petaluma, California

Tetra Tech, Inc.

Figure 2


LAN-MW2
LAN-MW1
Former
US Army
Landfill
Parking Lot


Agricultural
SOUTH BRANCH STEMI
Date Sampled 3/16/99
Results in µg/l
Cadmium 0.011
Chromium 0.044
Nickel 0.025
Zinc 0.052
Date Sampled 3/16/99
Results in µg/l
Toluene 0.52
Chromium 0.018
Zinc 0.023
75.19
LAN-MW2
73.66
LAN-MW1
Form
US
ndfill
Parking Lot

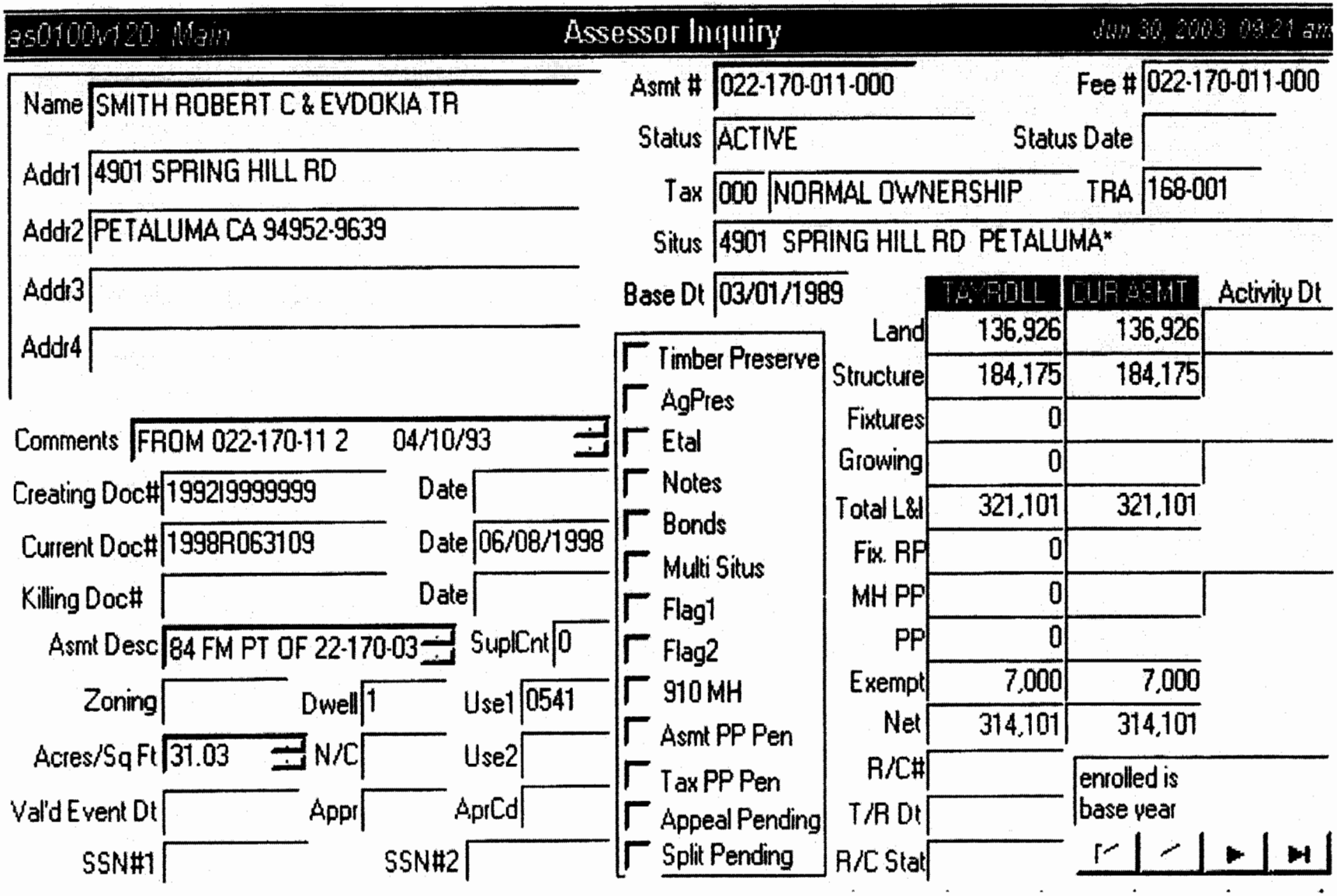
Two ground water samples (LAN-MW1-W and LAN-MW2-W) and one equipment blank (LAN-MW1-EB) were submitted to Entech Analytical Labs, Inc., of Sunnyvale, California, a state-certified hazardous waste laboratory, on March 17, 1999. All of the samples were analyzed for TPH-g and TPH-d, in accordance with United States Environmental Protection Agency (EPA) Method 8015, modified for TPH-g and TPH-d characterization; for benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tert-butyl ether (MTBE), in accordance with EPA Method 8020; for total recoverable petroleum hydrocarbons (TRPH), in accordance with EPA Method 418.1; for volatile organic compounds (VOCs), in accordance with EPA Method 8240; for semivolatile organic compounds (SVOCs), in accordance with EPA Method 8270; and for total cadmium, chromium, lead, nickel, and zinc, in accordance with EPA Method 200.7. Laboratory reports and chain-of-custody forms are presented in Appendix B.

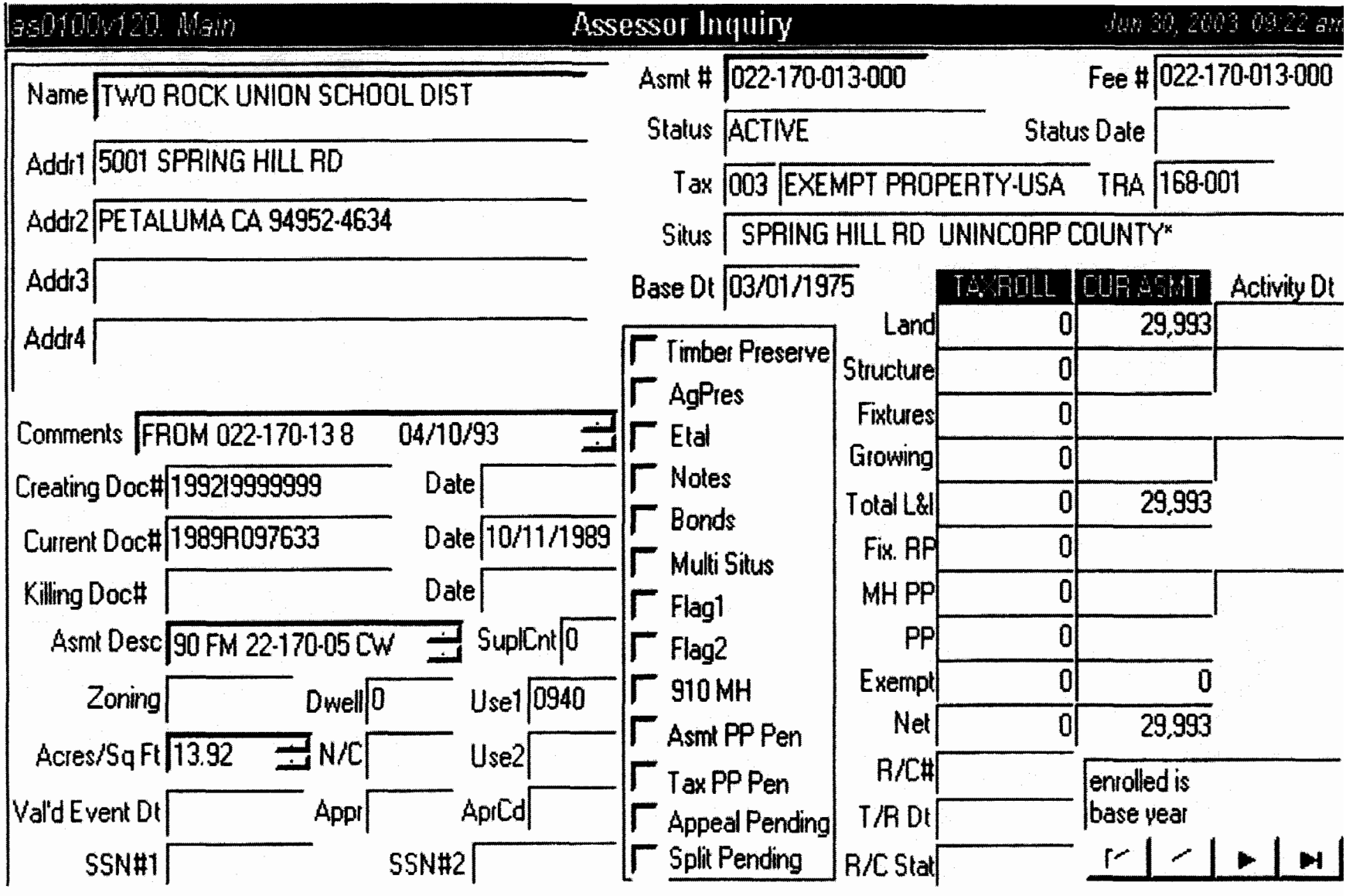
Former Landfill Site

The analytical results show that TRPH, TPH-g, TPH-d, MTBE, SVOCs, and lead were not detected at or above laboratory detection limits in samples LAN-MW1-EB, LAN-MW1-W, and LAN-MW2-W (Table 2). Concentrations of chromium (0.018 µg/l and 0.044 µg/l) and zinc (0.023 µg/l and 0.052 µg/l) were detected in ground water samples LAN-MW1-W and LAN-MW2-W, respectively, and are considered to be background concentrations. Cadmium at 0.011 µg/l and nickel at 0.025 µg/l were detected in ground water sample LAN-MW2-W. Additionally, concentrations of chromium at 0.030 µg/l and zinc at 0.017 µg/l were detected in the equipment blank sample LAN-MW1-EB. Both chromium and zinc detected in LAN-MW1-EB are suspected to be impurities in the deionized water used.

Based on the information presented in this report, the following conclusions have been made:

- The ground water gradient at the former US Army Landfill was determined to be at 0.014 feet/foot toward N 45° E.
- The fourth quarter of ground water analytical data shows that background concentrations of cadmium, chromium, nickel, and zinc were detected in ground water samples LAN-MW1-W and LAN-MW2-W.
- The fourth quarter of ground water analytical data shows that a concentration of toluene was detected in the sample collected from monitoring well LAN-MW1.
- Based on the results of the analyses, it is recommended that monitoring wells LAN-MW1 and LAN-MW2 at the landfill area, along with monitoring well F33-MW1 at the Auto Hobby Shop be abandoned.


es0100v120: Main
Assessor Inquiry
Jun 30, 2003 09:21 am
Name SMITH ROBERT C & EVDOKIA TR
Addr1 4901 SPRING HILL RD
Addr2 PETALUMA CA 94952-9639
Addr3
Addr4
Asmt # 022-170-011-000
Fee # 022-170-011-000
Status ACTIVE
Status Date
Tax 000 NORMAL OWNERSHIP
TRA 168-001
Situs 4901 SPRING HILL RD PETALUMA*
Base Dt 03/01/1989
Comments FROM 022-170-11 2 04/10/93
Creating Doc# 199219999999
Date
Current Doc# 1998R063109
Date 06/08/1998
Killing Doc#
Date
Asmt Desc 84 FM PT OF 22-170-03
SuplCnt 0
Zoning
Dwell 1
Use1 0541
Acres/Sq Ft 31.03
N/C
Use2
Val'd Event Dt
Appr
AprCd
SSN#1
SSN#2
Timber Preserve
AgPres
Etal
Notes
Bonds
Multi Situs
Flag1
Flag2
910 MH
Asmt PP Pen
Tax PP Pen
Appeal Pending
Split Pending
TAX ROLL
CUR ASMT
Activity Dt
Land 136,926 136,926
Structure 184,175 184,175
Fixtures 0
Growing 0
Total L&I 321,101 321,101
Fix. RP 0
MH PP 0
PP 0
Exempt 7,000 7,000
Net 314,101 314,101
R/C#
T/R Dt
R/C Stat
enrolled is base year


as0100v120. Main
Assessor Inquiry
Jun 30, 2003 09:22 am
Name TWO ROCK UNION SCHOOL DIST
Addr1 5001 SPRING HILL RD
Addr2 PETALUMA CA 94952-4634
Addr3
Addr4
Asmt # 022-170-013-000
Fee # 022-170-013-000
Status ACTIVE
Status Date
Tax 003 EXEMPT PROPERTY-USA
TRA 168-001
Situs SPRING HILL RD UNINCORP COUNTY*
Base Dt 03/01/1975
Comments FROM 022-170-13 8 04/10/93
Creating Doc# 199219999999
Date
Current Doc# 1989R097633
Date 10/11/1989
Killing Doc#
Date
Asmt Desc 90 FM 22-170-05 CW
SuplCnt 0
Zoning
Dwell 0
Use1 0940
Acres/Sq Ft 13.92
N/C
Use2
Val'd Event Dt
Appr
AprCd
SSN#1
SSN#2
Timber Preserve
AgPres
Etal
Notes
Bonds
Multi Situs
Flag1
Flag2
910 MH
Asmt PP Pen
Tax PP Pen
Appeal Pending
Split Pending
TAXROLL
CUR ASMT
Activity Dt
Land 0 29,993
Structure 0
Fixtures 0
Growing 0
Total L&I 0 29,993
Fix. RP 0
MH PP 0
PP 0
Exempt 0 0
Net 0 29,993
R/C#
T/R Dt
R/C Stat
enrolled is base year

County of Marin
Property Appraisal Support System

Owner

104-070-04

Situs Information: **Property Type:**N/A **Tax Rate Area** 094-00

Use Code: 30 **Living Units:** 0

Deed: 98-057135 **Deed Date:** 8/14/1998

Mailing Address:

BABB HEATHER TR
PO BOX 4651
PETALUMA
CA 94955

Contact Info:

Current Owners:

Owner Name	Vesting Code	Percent
BABB HEATHER TR	TR	100

Deeds:

Deed Ref ID	Date	Reason	Primary Owner Secondary Owner
98-057135	08/14/1998	ND	BABB HEATHER TR
88-16995	04/01/1988	ND	SMOJVER RADMILL & SUAREZ VALENTINA
86-62184	11/04/1986	ND	UNIVERSITY NATL BK & TRUST CO
86-04258	01/24/1986	ND	ANDREW WILLIAM M
84-36444	01/15/1985	ND	ROBERT ANDREW & LIONA E
82-30490	08/18/1982	ND	BAXTER DOROTHY ETAL 1/2

County of Marin
Property Appraisal Support System

Public Info

104-070-04

Situs Information: **Property Type:**N/A **Tax Rate Area** 094-001

Use Code: 30 **Living Units:** 0

Deed: 98-057135 **Deed Date:** 8/14/1998

Mailing Address:

BABB HEATHER TR
PO BOX 4651
PETALUMA
CA 94955

Owner Name	Vesting Code	Percent
BABB HEATHER TR	TR	100.0

Residential Characteristics	
Gross Land (sqft):	
TBLA (sqft):	
Unfinished (sqft):	
Construction Year:	
Bedrooms:	0
Bathrooms:	0.0
Pool (sqft):	
Garage (sqft):	
Carport (sqft):	
Cardeck (sqft):	
RecPorch (sqft):	

	Prior Equalized	Current
Roll:	2001	2002
Land:	195,595	199,505
Improvements:	0	0
Business:	0	0
Personal:	0	0
Total Value:	195,595	199,505
Total Exempt:	0	0
Net Value:	195,595	199,505
Use Code:	30	30
Event Code:	SALE	SALE
Event Date:	1/1/2001	1/1/2002

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

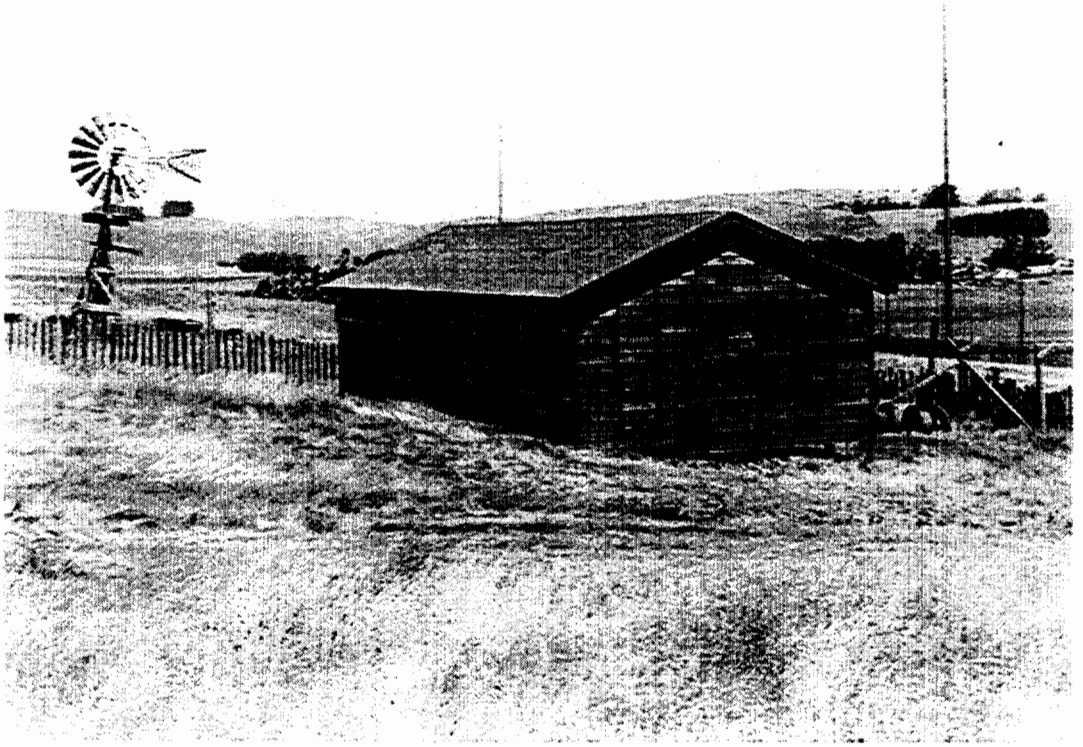
APPENDIX F

STILL PHOTOGRAPH REFERENCES

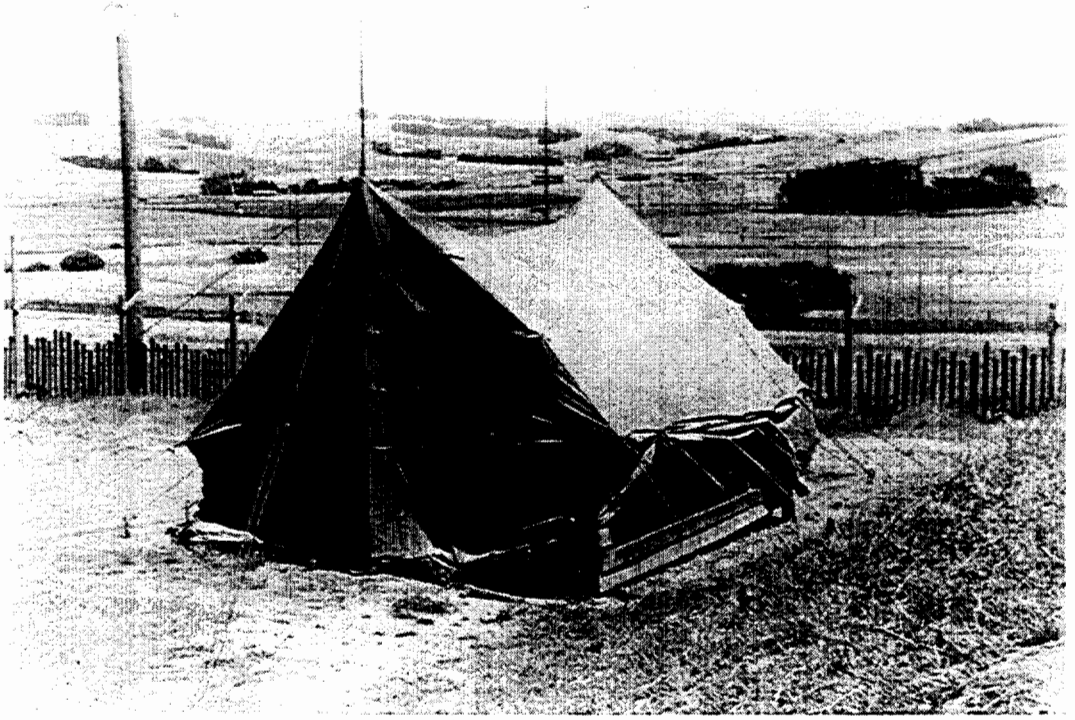
APPENDIX F

STILL PHOTOGRAPH REFERENCES

TABLE OF CONTENTS



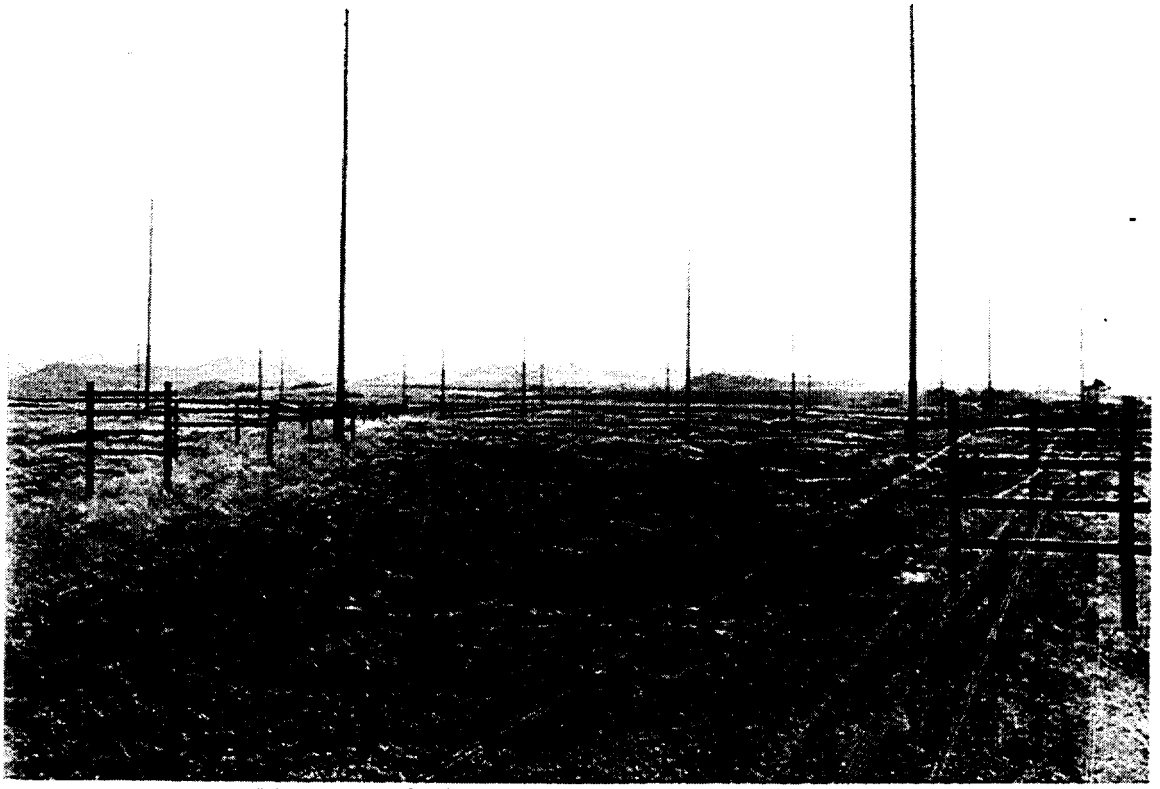
F-1 Storehouse built to resemble ranch building, circa 1942.



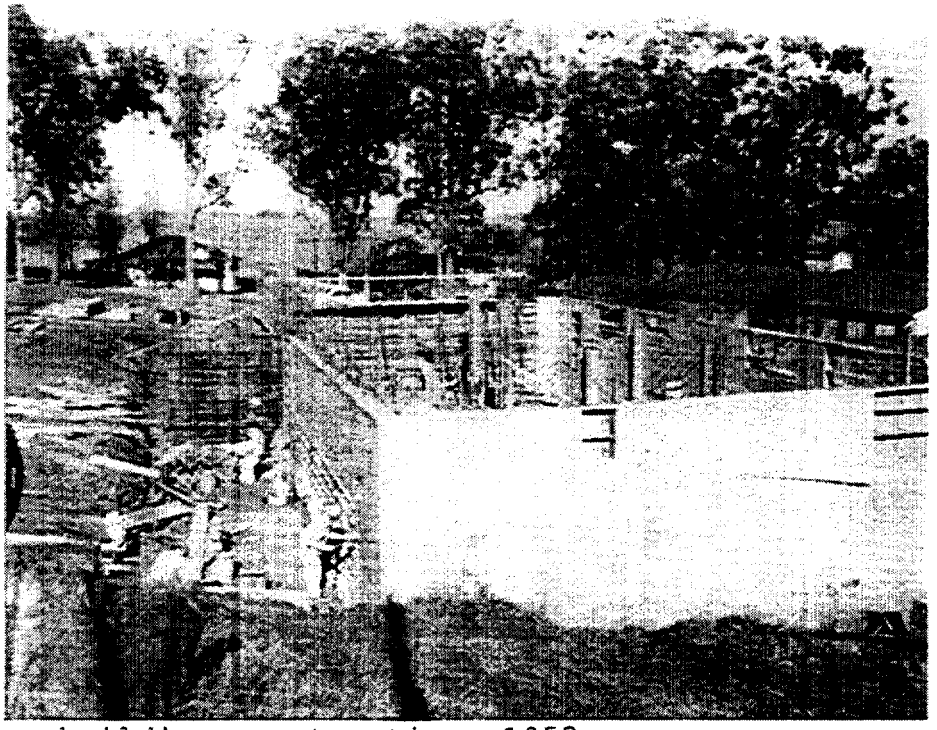
F-2 Living quarters, circa 1942.

F-3 Roll call, 119th Signal Radio Intelligence Company, 1943.

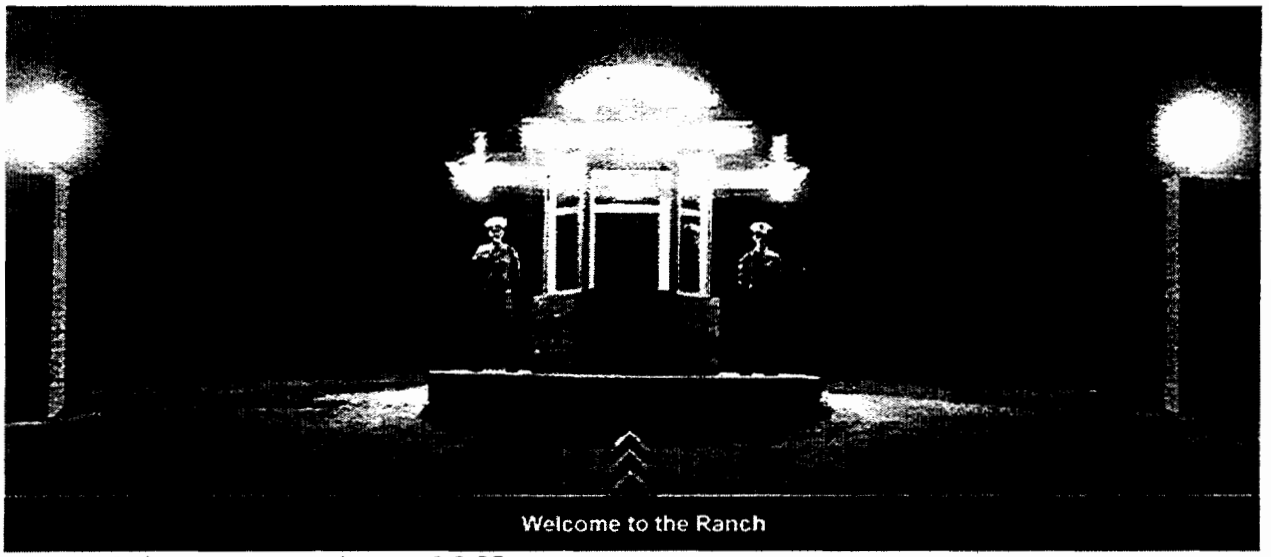
F-4 Incinerator used for document destruction, circa 1943.



F-5 Antenna field, 1943.



F-6 New building construction, 1953.



F-7 Main Gate, circa 1965.

F-8 'Vietnam Village', circa 1968.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

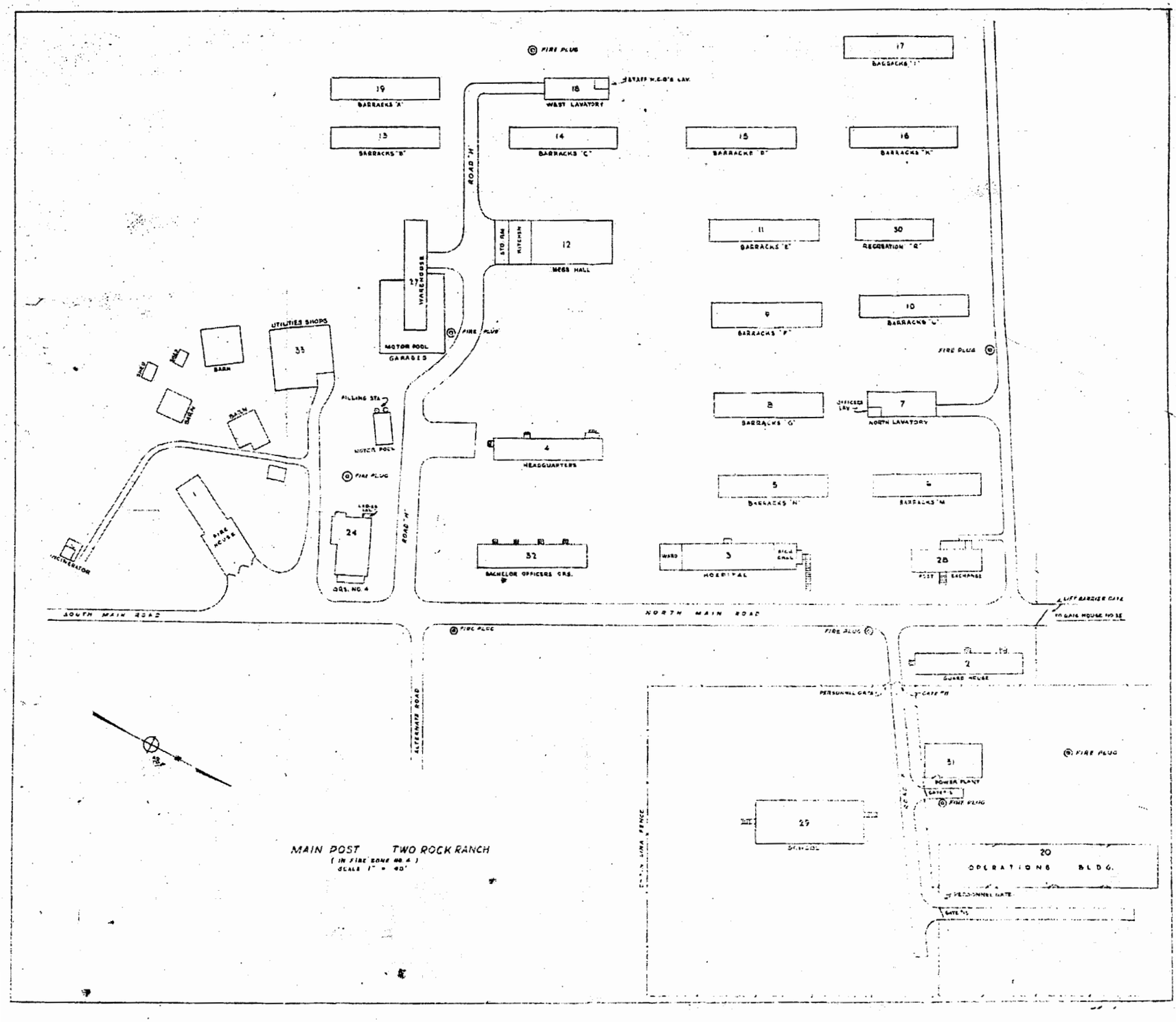
APPENDIX G

MAPS/DRAWINGS REFERENCES

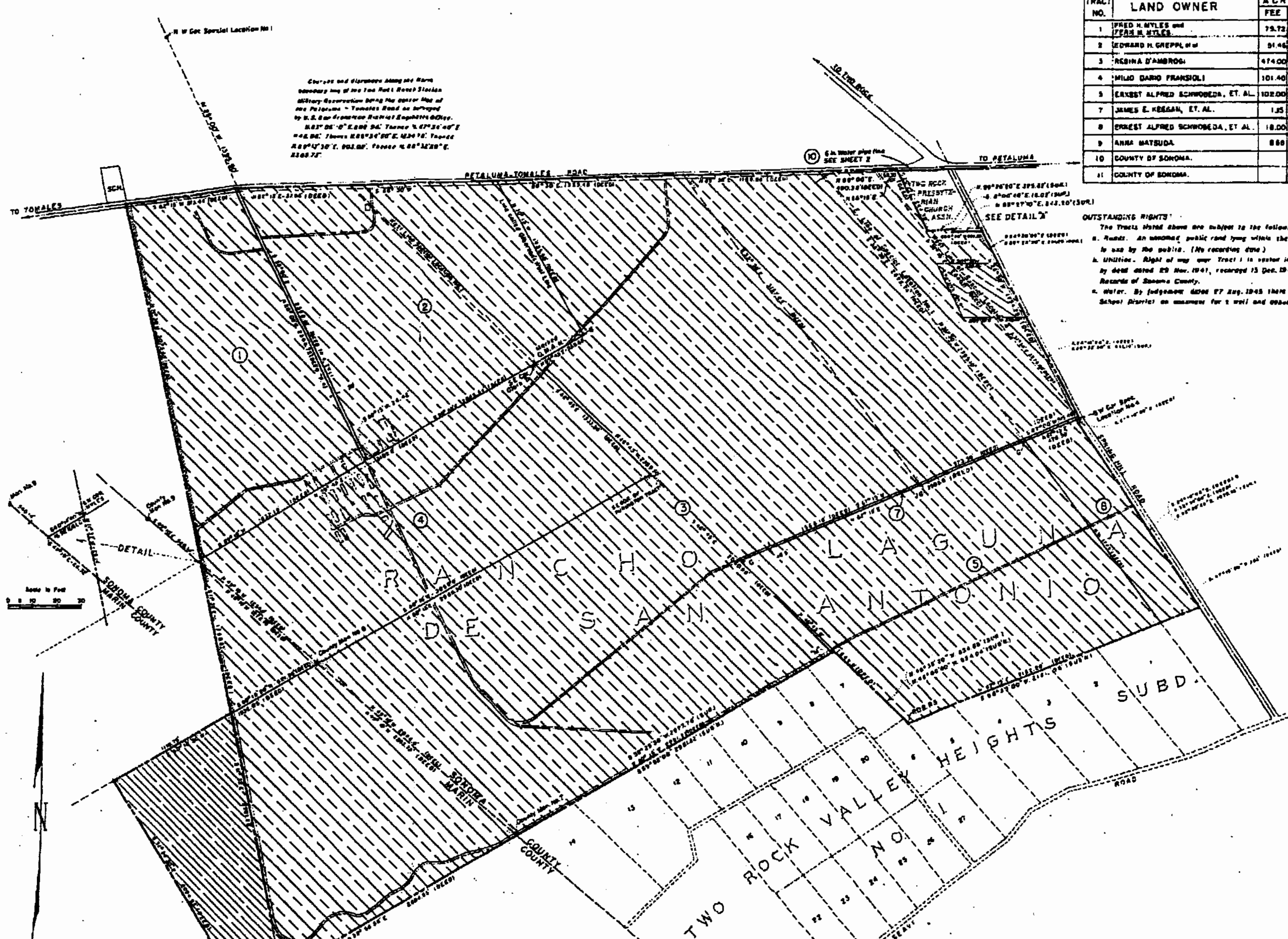
APPENDIX G

MAPS/DRAWINGS REFERENCES

TABLE OF CONTENTS


FIRE PLUG
17
BARRACKS 'I'
19
BARRACKS 'A'
18
WEST LAVATORY
STAFF N.C.O'S LAV.
13
BARRACKS 'B'
14
BARRACKS 'C'
15
BARRACKS 'D'
16
BARRACKS 'K'
ROAD 'H'
STO RM
KITCHEN
12
MESS HALL
11
BARRACKS 'E'
30
RECREATION 'Q'
WAREHOUSE
MOTOR POOL
GARAGES
9
BARRACKS 'F'
10
BARRACKS 'L'
UTILITIES SHOPS
33
BARN
SHED
FILLING STA.
WATER POOL
8
BARRACKS 'G'
OFFICERS LAV.
7
NORTH LAVATORY
4
HEADQUARTERS
5
BARRACKS 'N'
6
BARRACKS 'M'
INCINERATOR
1
FIRE HOUSE
24
GAS. NO. 4
ROAD 'H'
32
BACHELOR OFFICERS QRS.
WARD
3
MESS HALL
HOSPITAL
28
POST EXCHANGE
SOUTH MAIN ROAD
NORTH MAIN ROAD
CLIFF BARRIER GATE
TO GATE HOUSE NO. 5E
2
GUARD HOUSE
PERSONNEL GATE
GATE "B"
ALTERNATE ROAD
51
POWER PLANT
GATE "A"
29
SCHOOL
20
OPERATIONS BLDG.
PERSONNEL GATE
GATE "C"
MAIN POST TWO ROCK RANCH
(IN FIRE ZONE 46 A)
SCALE 1" = 40'

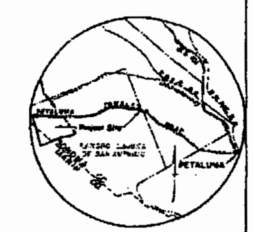
G-1



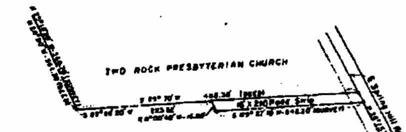
ACQUISITION TRACT REGISTER				
TRACT NO.	LAND OWNER	ACREAGE FEE	ACREAGE LESSER INT.	REMARKS
1	FRED H. MYLES and FERN M. MYLES.	79.72		Declaration of Taking.
2	EDWARD H. GREPPL, et al	91.46		Declaration of Taking.
3	REGINA D'AMBROGI	474.00		Declaration of Taking, includes areas formerly shown as Tract 3A & 3B
4	MILIO DARIO FRANSIOLI	101.40		Declaration of Taking. Includes area formerly shown as Tract 6
5	ERNEST ALFRED SCHWOBEDA, ET. AL.	102.00		Declaration of Taking.
7	JAMES E. KEEGAN, ET. AL.	1.35		Declaration of Taking.
8	ERNEST ALFRED SCHWOBEDA, ET. AL.	18.00		Declaration of Taking.
9	ANNA MATSUDA	8.68		Declaration of Taking.
10	COUNTY OF SONOMA.		NO AREA	License WDA-193-eng.-5679, dated 15 Nov 45. For 6 in. Water pipe line right of way
11	COUNTY OF SONOMA.		NO AREA	Encroachment Permit No. 83, dated 25 Oct 48. For 6 in. Water pipe line right of way

OUTSTANDING RIGHTS:
The Tracts listed above are subject to the following encumbrances:
a. Roads. An unnamed public road lying within the Reservation is subject to use by the public. (No recording done)
b. Utilities. Right of way over Tract 1 is vested in Pacific Gas and Electric Co. by deed dated 29 Nov. 1941, recorded 13 Dec. 1941 in Bk. 537 O.R. at page 342, Records of Sonoma County.
c. Water. By judgement dated 27 Aug. 1945 there is vested in Two Rock Union School District an easement for a well and appurtenant structures near Tract 1.

STATE INDEX



VICINITY MAP



DETAIL "A"

TYPE FINAL

— PROJECT OWNERSHIP MAP —

STATE CALIFORNIA
COUNTY SONOMA & MARIN
DIVISION SOUTH PACIFIC
DISTRICT SAN FRANCISCO TO SACRAMENTO DISTRICT 1 JUN 61
SIXTH ARMY AREA

— LOCATION OF PROJECT —

10 MILES NW OF PETALUMA
MILES OF

— TRANSPORTATION FACILITIES —

RAILROADS
STATE ROADS
FEDERAL ROADS U.S. 101
AIRLINES

AUDITED
— ACQUISITION —

TOTAL ACRES ACQUIRED 876.41
ACRES FEE 876.41
ACRES TRANSF'R TO WAR DEPT.
ACRES LEASED TO WAR DEPT.
ACRES LESSER INTERESTS (1) LICENSE NO AREA (1) PERMIT NO AREA

— DISPOSAL —

TOTAL ACRES DISPOSED OF 876.41
ACRES SOLD BY WAR DEPT. 5.36
ACRES TRANSF'D LICENSE NO AREA, PERMIT NO AREA, FEE 835.68
ACRES RETRANSF'D TO GOVT. AGCY.
ACRES LEASES TERMINATED
ACRES LESSER INT'S TERM.
ACRES TO WAA 35.37

— LEGEND —

NOTE: USE SYMBOLS FROM FM-21-30 (WAR DEPT. BASIC FIELD MANUAL) PAGES 21 TO 27 INCL.

EXCEPT
RESERVATION LINE
RESERVATION LINE (Actual Survey)
DAM SITE (Taking Line)
RESERVOIR SITE (Taking Line)
CONTOUR LINES 470
AVIGATION EASEMENTS
TRACT NUMBER 99

ACQUISITION AUTHORIZATION		
RE-D 1434	Dated	12 Aug. 1942
RE-D 1781	Dated	13 Oct. 1942
RE-D 1781A	Dated	18 Feb. 1943
RE-D 4192	Dated	23 Nov. 1944
RE-D 4831(Gen)	Dated	15 Nov. 1946

REVISIONS	DATE		BY
	24 Jun '48	DUE TO FINAL AUDIT	A.M.L.
	[illegible]	Disposal Data	
	3 Nov '58	[illegible] CHANGES, SURVEY DATA ADDED, PERIMETER BOUNDARY OF TRACT [illegible] CHANGED	J.C.M.

CORPS OF ENGINEERS, U.S. ARMY
OFFICE OF THE DIVISION ENGINEER
SOUTH PACIFIC DIVISION

REAL ESTATE

TWO ROCK RANCH STATION

MILITARY RESERVATION

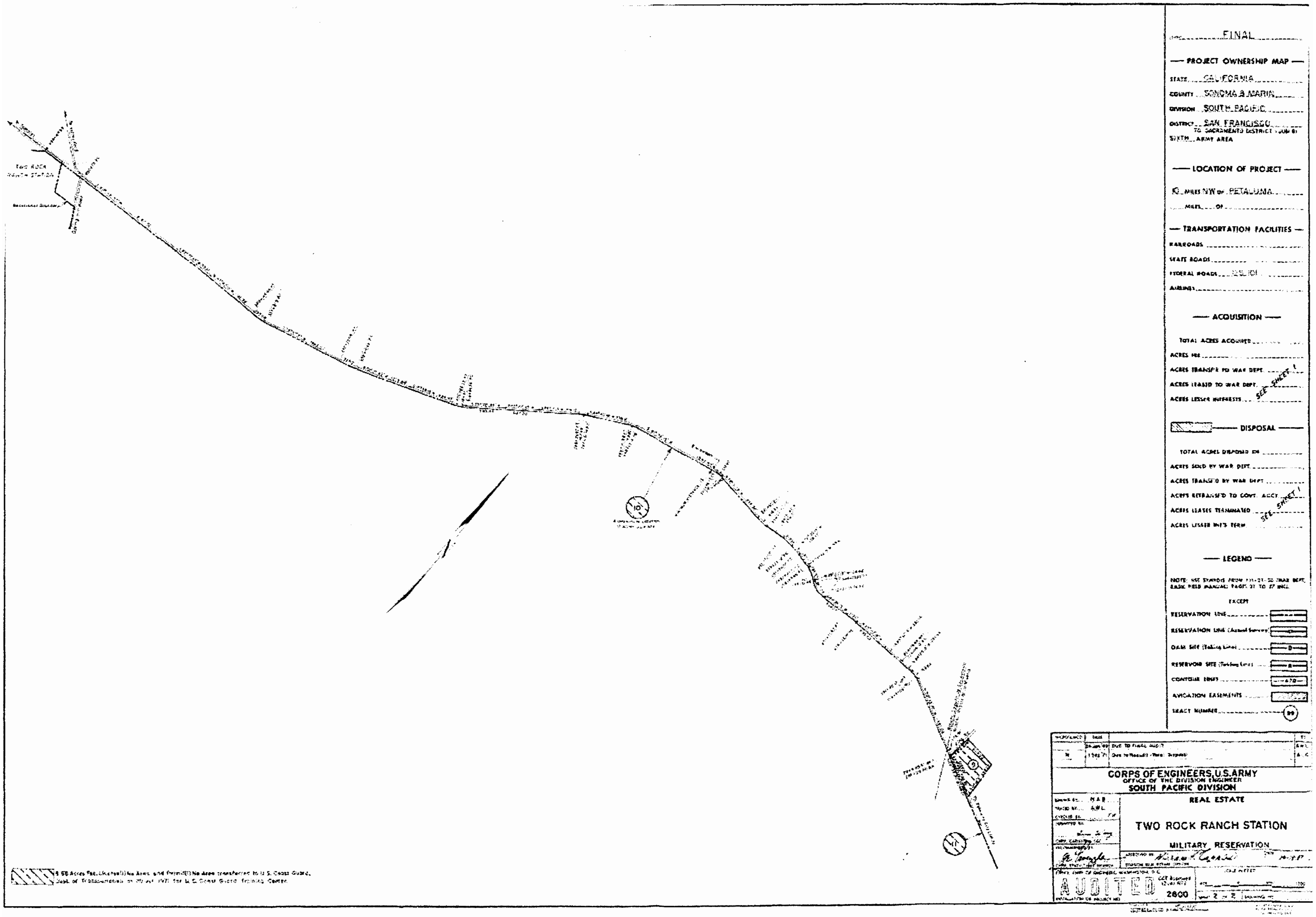
DRAWN BY T.W.
TRACED BY A.M.L.
CHECKED BY T.W.
SUBMITTED BY [signature] CHIEF, CADASTRAL SEC.
RECOMMENDED BY [signature] CHIEF, STATISTICAL BRANCH
APPROVED BY: [signature] DIVISION REAL ESTATE OFFICER DATE 10-12-47
OFFICE CHIEF OF ENGINEERS, WASHINGTON, D.C.
AUDITED
OCE Approval 12 Jan 1972
2800
INSTALLATION OR PROJECT NO.
SCALE IN FEET
SHEET 1 OF 2 DRAWING NO.

M	1 Sep 71	Due to Reaudit - Total Disposal	A.L.C.	
MICROFILMED	DATE	REVISIONS	BY	

835.68 Acres Fee, License(1) No Area and Permit(1) No Area (Net Area-827.00 Acres Fee) transferred to U.S. Coast Guard, Dept. of Transportation on 29 Jul 1971 for U.S. Coast Guard Training Center.

5.36 Acres QUITCLAIMED TO TWO ROCK UNION SCHOOL DISTRICT 11 DEC. 1951

ACCOUNTABILITY ASSUMED BY W.A.A. ON 35.37 ACRES 25 APR. 1947


FINAL
PROJECT OWNERSHIP MAP
STATE CALIFORNIA
COUNTY SONOMA & MARIN
DIVISION SOUTH PACIFIC
DISTRICT SAN FRANCISCO
TO SACRAMENTO DISTRICT
SIXTH ARMY AREA
LOCATION OF PROJECT
MILES NW OF PETALUMA
TRANSPORTATION FACILITIES
RAILROADS
STATE ROADS
FEDERAL ROADS
AIRLINES
ACQUISITION
TOTAL ACRES ACQUIRED
SEE SHEET 1
DISPOSAL
SEE SHEET 1
LEGEND
RESERVATION LINE
AVIATION EASEMENTS
TRACT NUMBER
TWO ROCK RANCH STATION
CORPS OF ENGINEERS, U.S. ARMY
OFFICE OF THE DIVISION ENGINEER
SOUTH PACIFIC DIVISION
REAL ESTATE
TWO ROCK RANCH STATION
MILITARY RESERVATION
AUDITED
2800

G-2

CORPS OF ENGINEERS

BUILDING INDEX
(OTHER BUILDINGS ADDED IN 1958)

BLDG. NO.	DESIGNATION	SECTION
[illegible]	SAY ROOM	4
T-244	HANDBALL BACKSTOP	5
T-245	SOFTBALL BACKSTOP	5
331	TRANSFORMER PAD	5
409	PROPANE STORAGE TANK	5
418	TRANSFORMER PAD	5
T-426	HIGH HOUSE (SKEET)	6
848	TRANSFORMER PAD	4
849	TRANSFORMER PAD	4
400	FAMILY QUARTERS, A THRU H	5
401	FAMILY QUARTERS, A THRU H	6
402	FAMILY QUARTERS, A THRU H	5
408	TRANSFORMER PAD	5

BUILDING INDEX

BLDG. NO.	DESIGNATION	SECTION
[illegible]	[illegible]	[illegible]
140	POST HEADQUARTERS AND TELEPHONE EXCHANGE	4
141	[illegible]	4
T-142	POST SUPPLY	4
T-143	NCO OPEN MESS	
T-150	POST ENGINEER OFFICE AND SHOPS	
T-151	POST ENGINEER EQUIPMENT REPAIR SHOP	
T-152	POST ENGINEER PAINT SHED	
T-153	POST ENGINEER MAINT. STORAGE SHED	
T-154	POST ENGINEER STORAGE SHED	
T-155	GUARD HOUSE AND DAY ROOM	
T-156	POST ENGINEER LUMBER AND PIPE STORAGE SHED	
T-157	ENGINEER EQUIPMENT SHED	

BUILDING INDEX (CONT)

BLDG. NO.	DESIGNATION	SECTION
T-170	SPRING HOUSE	1
T-171	SPRING HOUSE	1
T-200	FAMILY QUARTERS	4
T-201	FIRE STATION	4
T-210	MOTOR REPAIR SHOP	4
T-211	SHED, AIR COMPRESSOR	4
T-212	SHED, OIL AND GREASE STORAGE	4
213	GREASE RACK	4
214	WASH RACK	4
215	GASOLINE STORAGE - TANK AND PUMP	4
T-220	FAMILY QUARTERS	4
T-221	SHED, STORAGE	4
T-222	SHED, STORAGE	4
223	PROPANE STORAGE TANK	4
230	POST EXCHANGE	4
T-231	POST EXCHANGE STORAGE	4
T-232	POST EXCHANGE SERVICE STATION	4
240	DRILL AND ATHLETIC FIELD	5
241	DUGOUT	5
242	DUGOUT	5
243	LATRINE AND REFRESHMENT STAND	5
250	SPECIAL SERVICES AND LIBRARY	4
251	GYMNASIUM AND BOWLING ALLEY	4
252	TENNIS COURT	4
T-260	GYMNASIUM	4
261	AUDITORIUM	4
300	PROPANE STORAGE TANK (500 GALLON)	4
301	FAMILY QUARTERS, A & B	4
302	FAMILY QUARTERS, A & B	4
303	TRANSFORMER PAD	4
304	FAMILY QUARTERS, A & B	4
T-320	FAMILY QUARTERS	5
T-321	GARAGE	5
T-322	FAMILY QUARTERS	1
330	FAMILY QUARTERS	1
331	FAMILY QUARTERS, A & B	8
T-340	PISTOL RANGE (1,000")	7
T-341	PISTOL RANGE FENCE	7
T-342	PISTOL RANGE STORAGE SHED	7
T-350	INCINERATOR	7
403	FAMILY QUARTERS, A THRU D	5
404	FAMILY QUARTERS, A THRU H	5
406	FAMILY QUARTERS, A THRU H	5
407	TRANSFORMER PAD	5
T-408	CHILDREN'S PLAYGROUND	5
410	FAMILY QUARTERS, A & B	5
411	FAMILY QUARTERS, A & B	5
420	ATHLETIC FIELD	6
[illegible]	LATRINE	
[illegible]	REFRESHMENT STAND	
[illegible]	TRAP HOUSE (SKEET)	
[illegible]	[illegible]	[illegible]
T-600	PUMP HOUSE, BOOSTER	3
601	WATER TANK, 4,000 GAL.	3
T-602	PUMP HOUSE, WELL NO. 10	3
T-603	PUMP HOUSE, WELL NO. 11	3
610	FENCE, BOOSTER PUMP	3
611	FENCE, WELL NO. 10	3
612	FENCE, WELL NO. 11	3
620	PIPELINE FROM PETALUMA TO WATER TANK	

SCALE IN FEET

ABBREVIATIONS

[illegible]

NOTE: NO FACILITIES UNDER CONSTRUCTION

RECOMMENDED BY THE INSTALLATION PLANNING BOARD

REVISIONS

CORPS OF ENGINEERS
U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER, SAN FRANCISCO DISTRICT
SAN FRANCISCO, CALIFORNIA

INSTALLATION PLANNING BOARD
TWO ROCK RANCH STATION
PETALUMA, CALIFORNIA

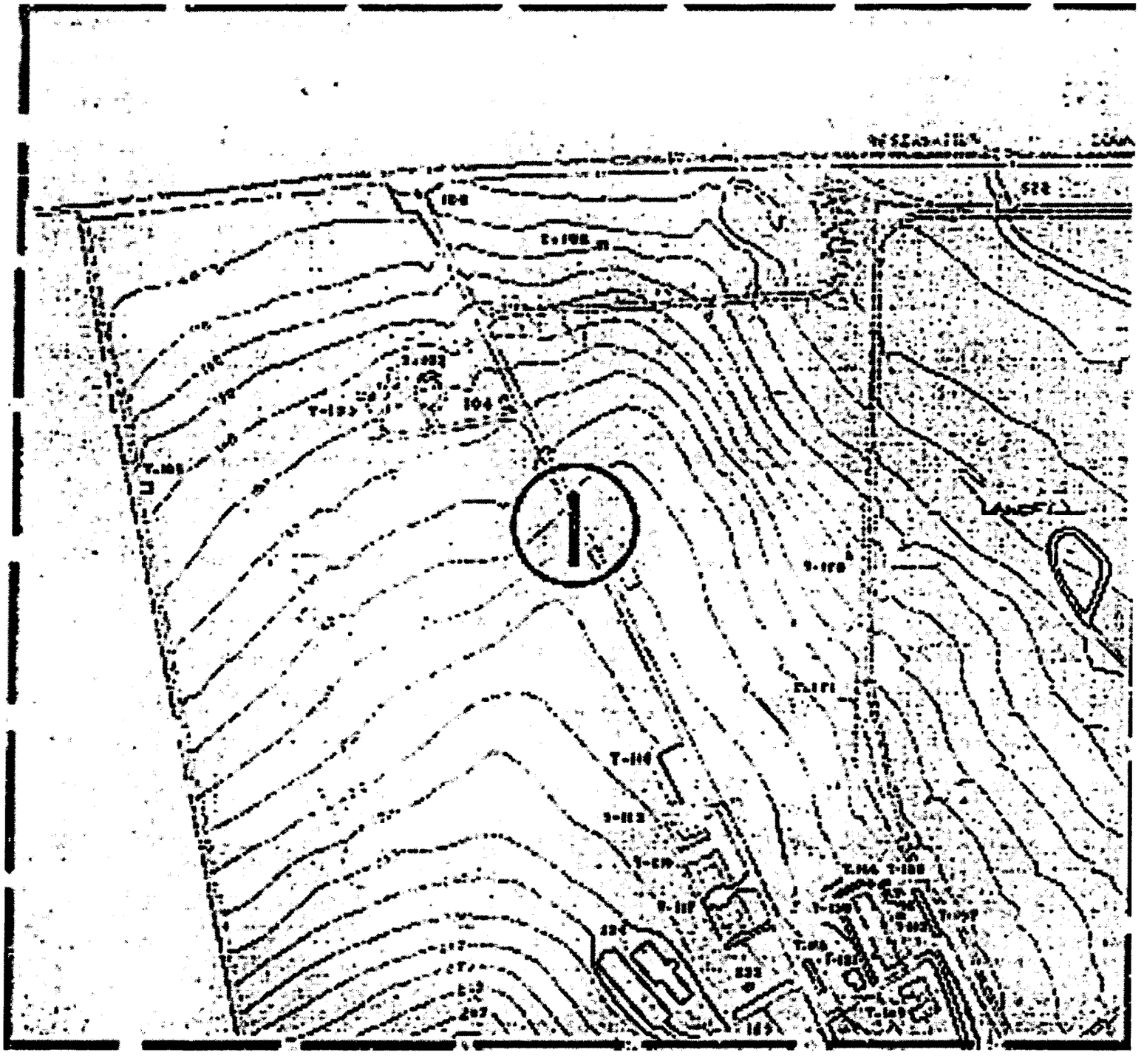
TWO ROCK RANCH STATION
PETALUMA, CALIFORNIA

DEAN S. KINGMAN

MASTER PLAN
BASIC INFORMATION MAPS
KEY MAP
DETAIL SITE AND BUILDING USE MAPS
(SECTIONAL)

12 DEC 58

FOR REFERENCE PLEASE USE DISTRICT FILE NO [illegible]-14 SHEET ② OF 24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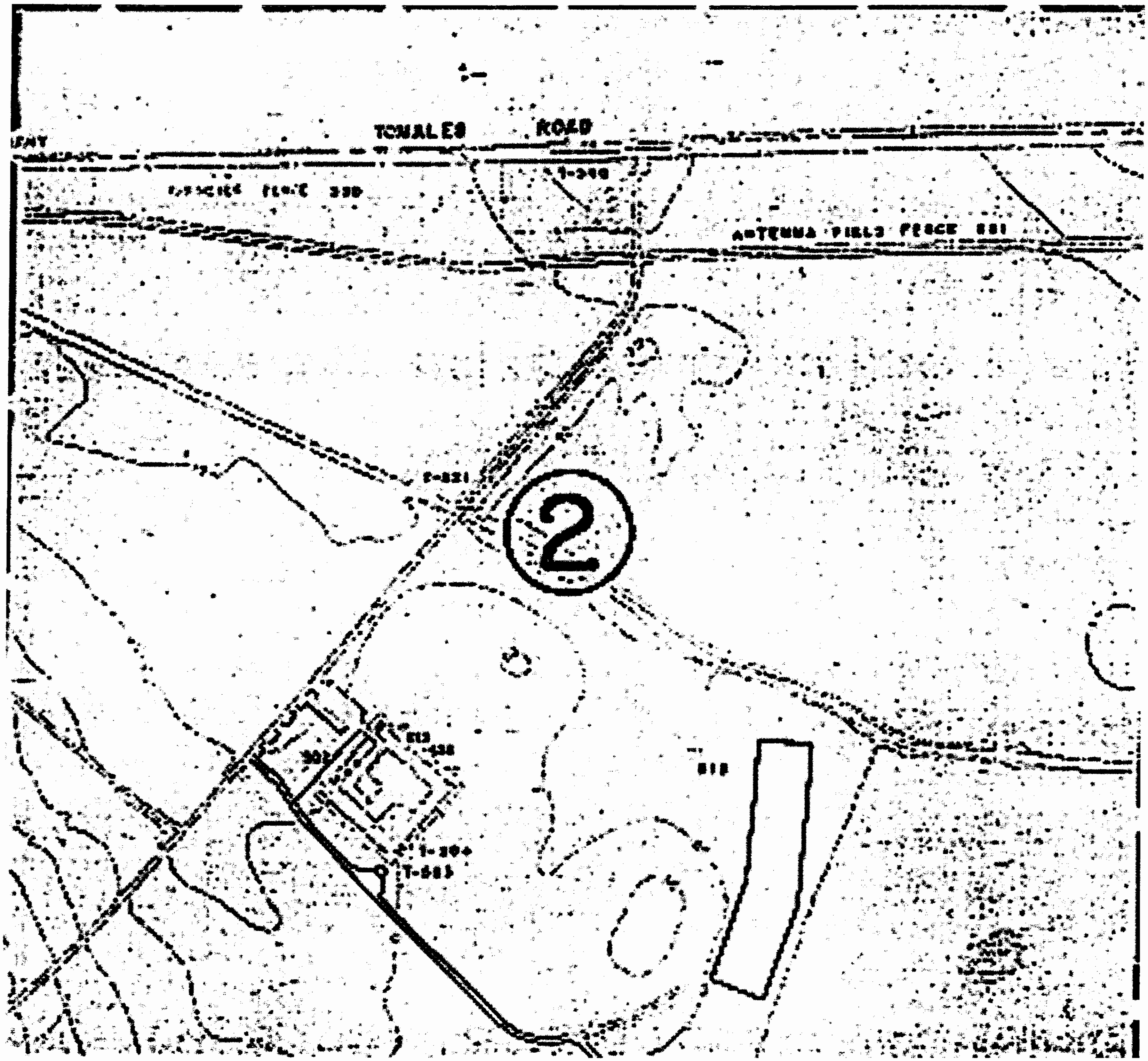
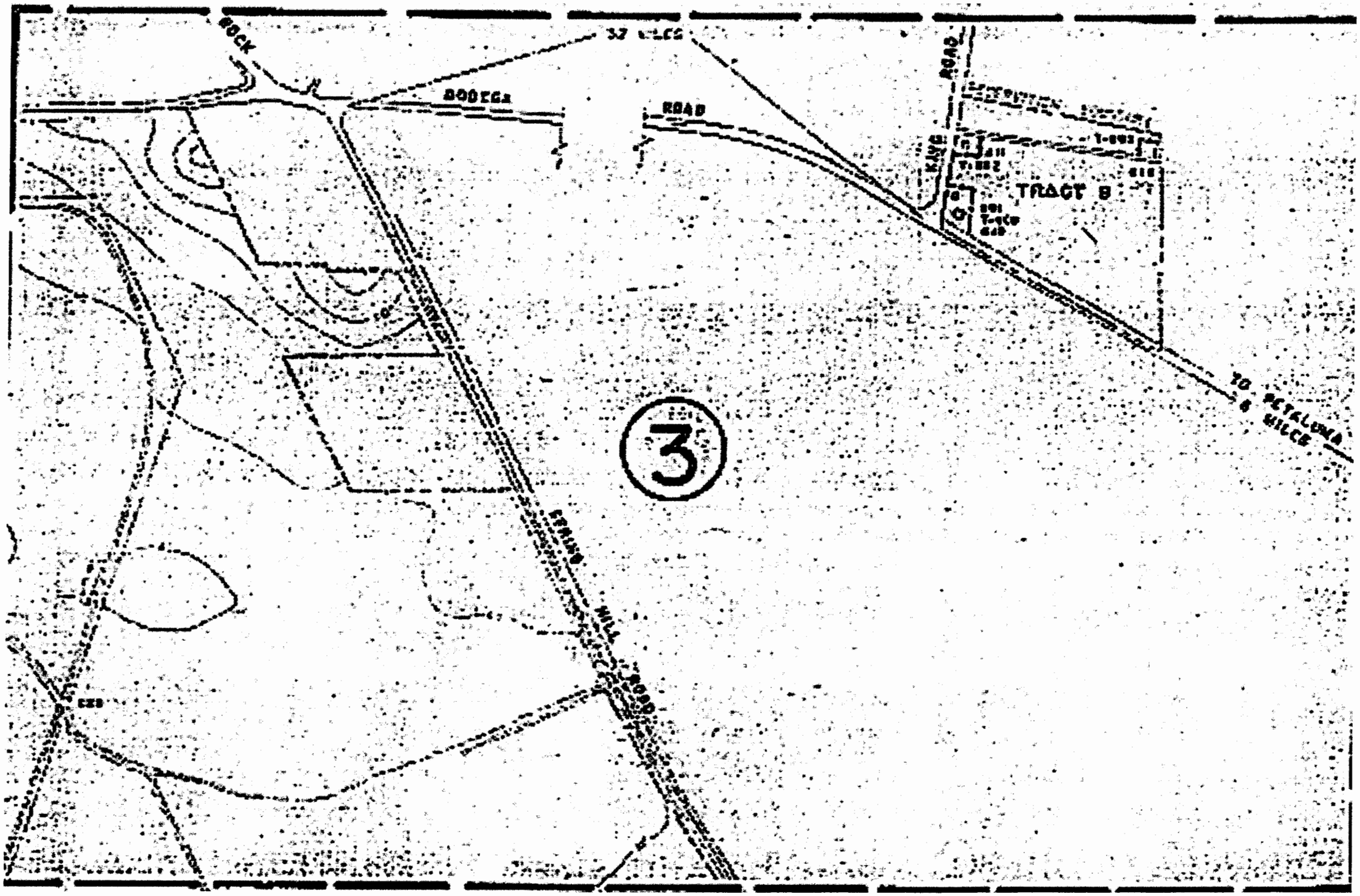
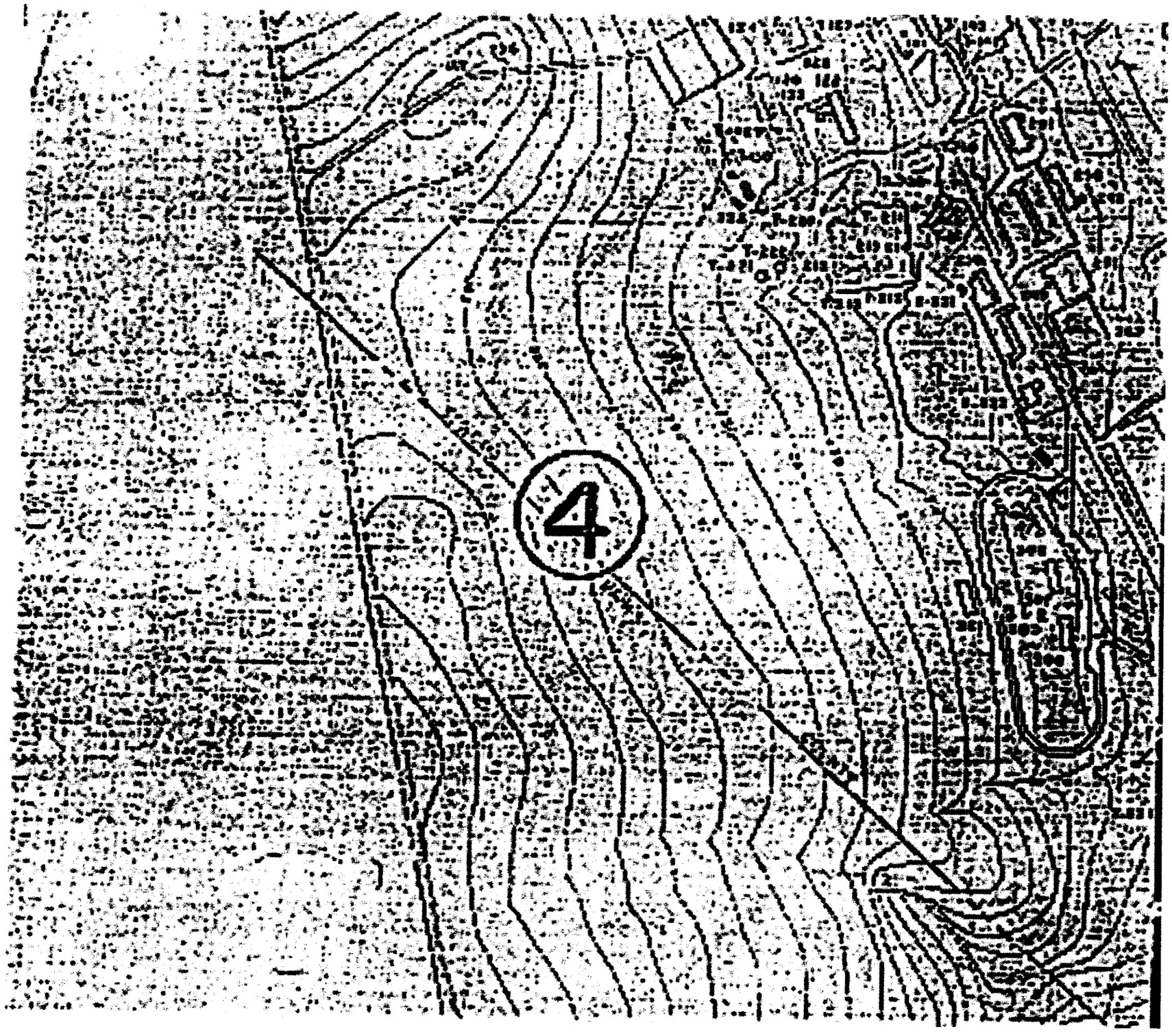

TOMALES ROAD
2


ROAD
ROAD
TRACT B
3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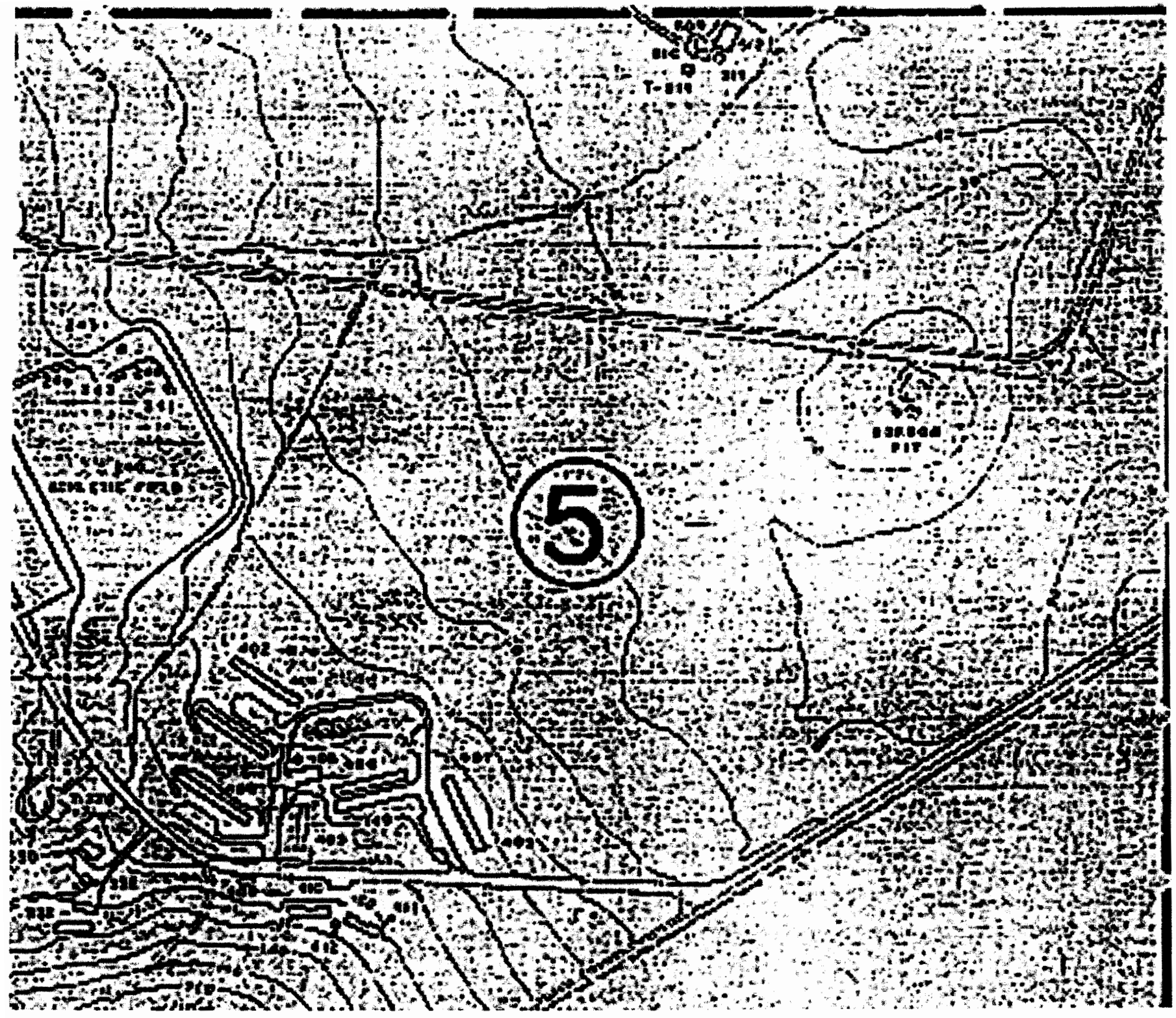
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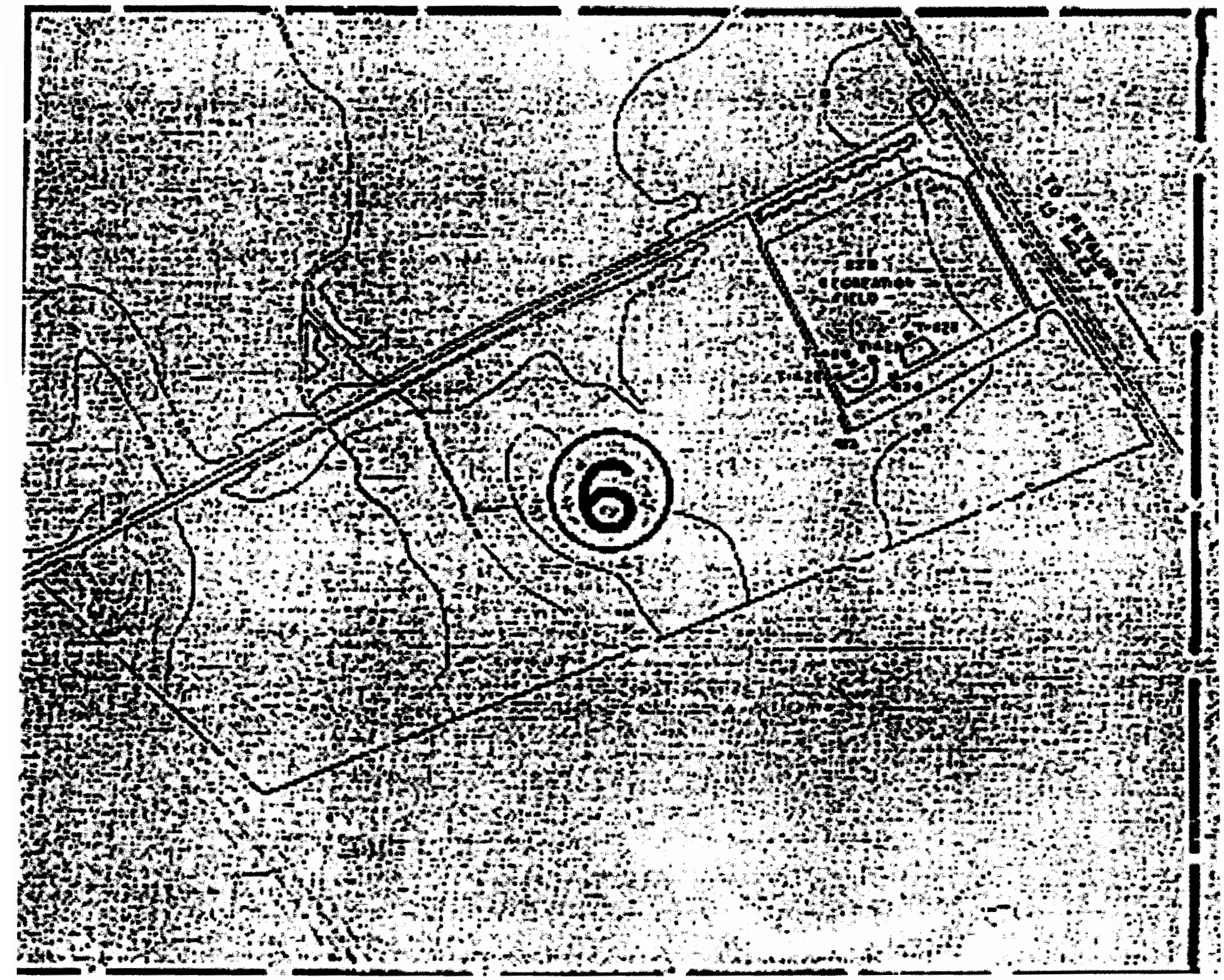
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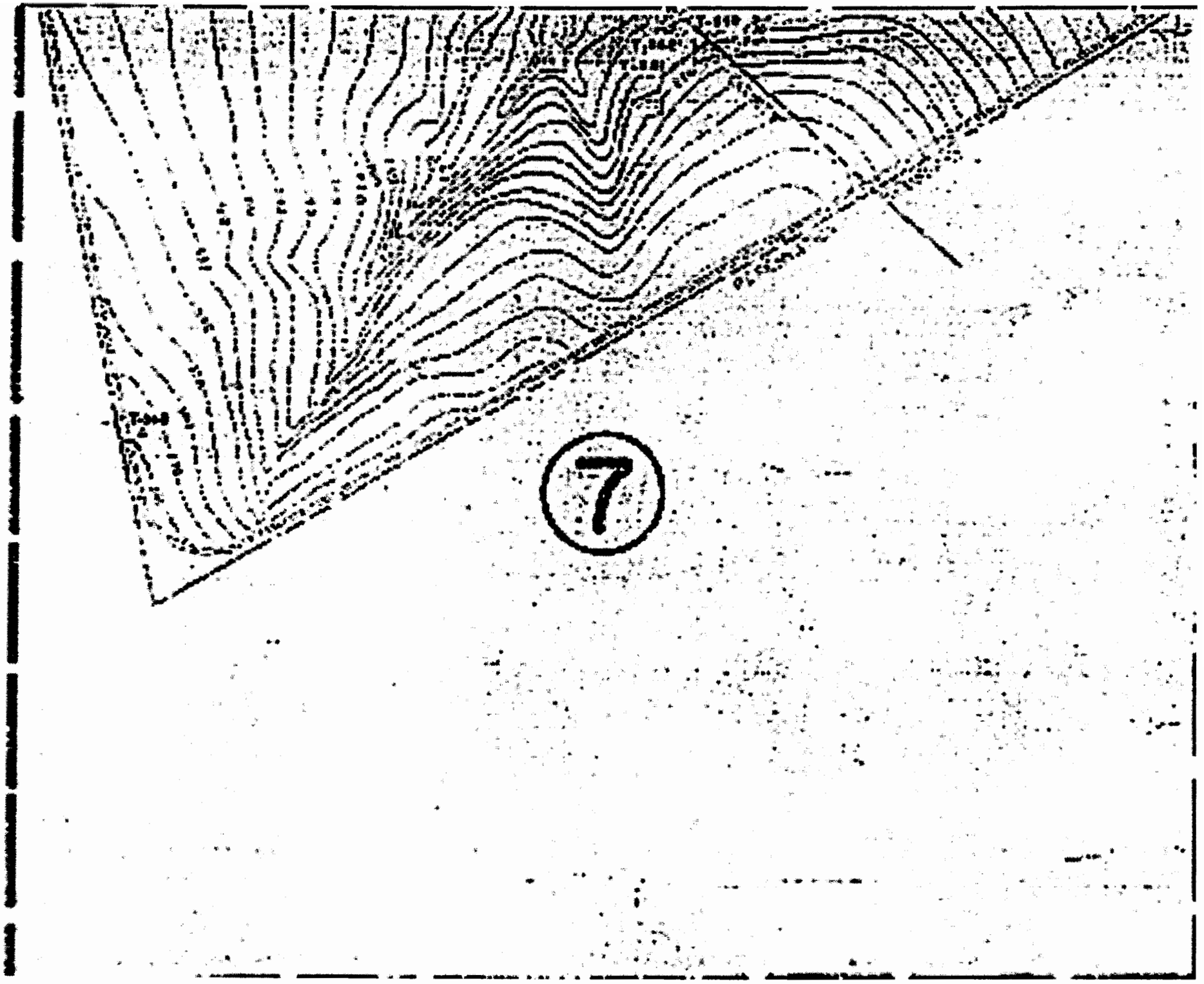
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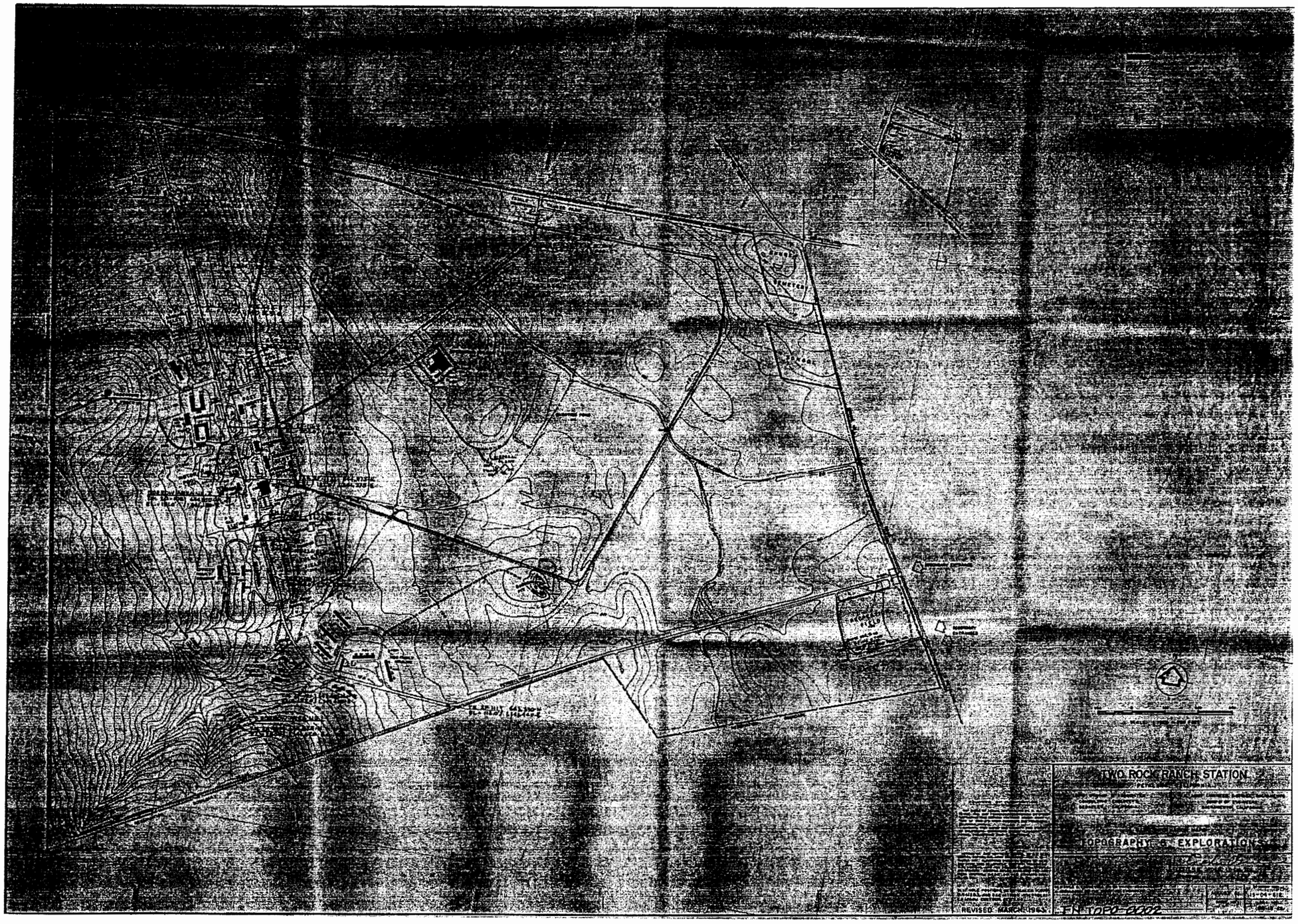
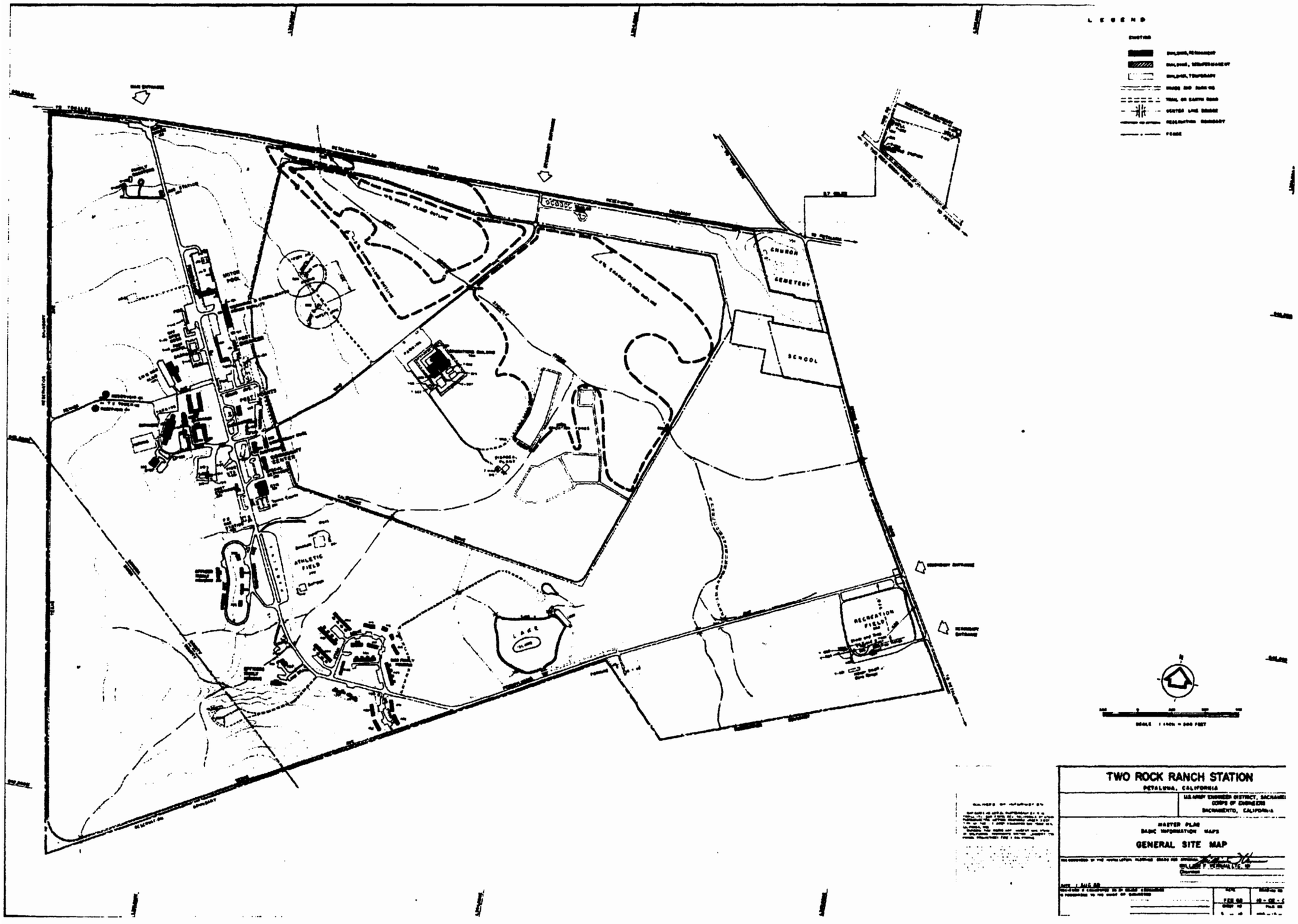

TWO ROCK RANCH STATION
REVISED MARCH 1963



TWO ROCK RANCH STATION

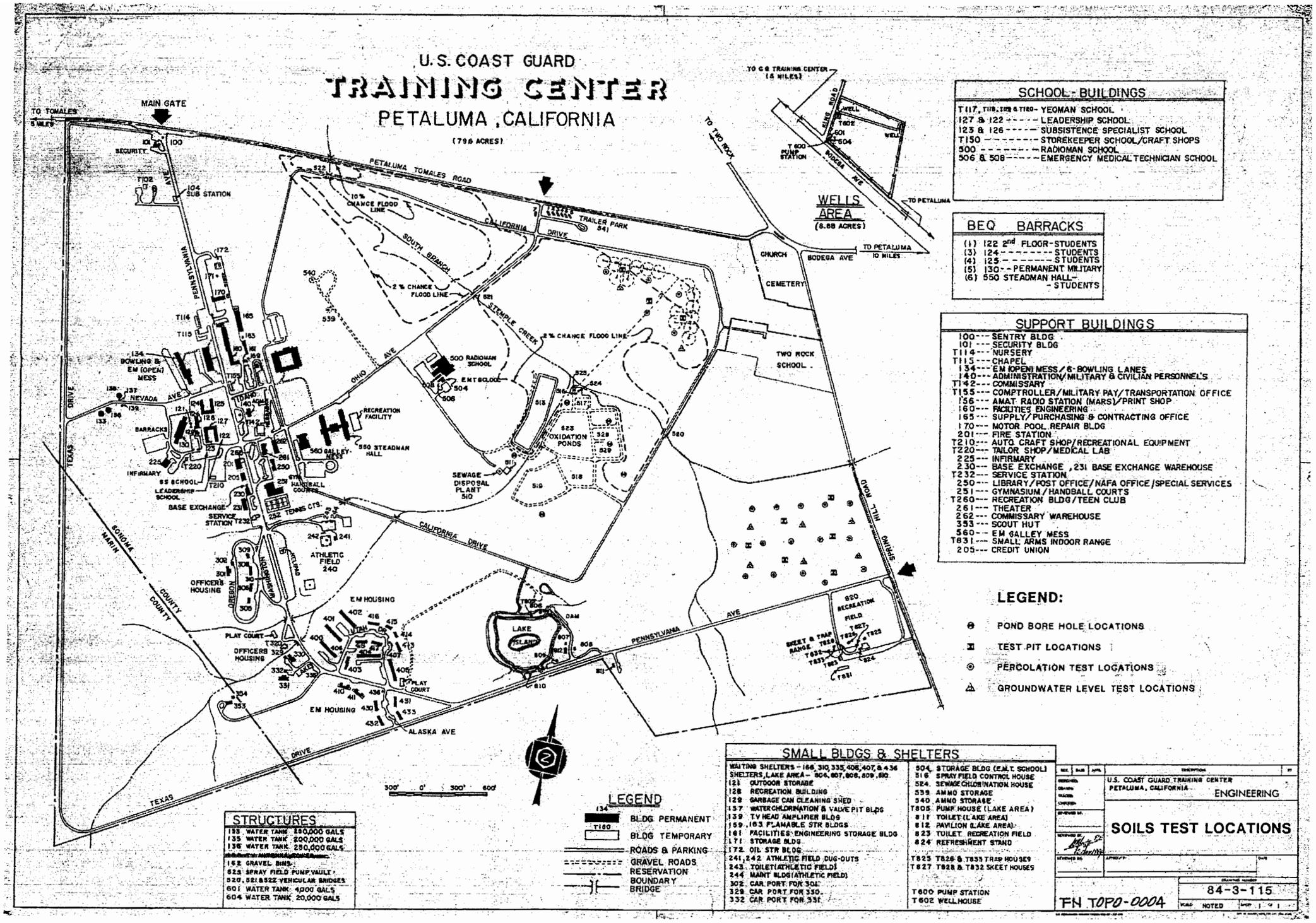
PETALUMA, CALIFORNIA

U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

MASTER PLAN
BASIC INFORMATION MAPS

GENERAL SITE MAP

U.S. COAST GUARD
TRAINING CENTER
PETALUMA, CALIFORNIA
(796 ACRES)



SCHOOL - BUILDINGS

T117, T118, T119 & T120	YEOMAN SCHOOL
127 & 122	LEADERSHIP SCHOOL
123 & 126	SUBSISTENCE SPECIALIST SCHOOL
T150	STOREKEEPER SCHOOL/CRAFT SHOPS
500	RADIOMAN SCHOOL
506 & 508	EMERGENCY MEDICAL TECHNICIAN SCHOOL

BEQ BARRACKS

(1)	122 2nd FLOOR-STUDENTS
(3)	124 STUDENTS
(4)	125 STUDENTS
(5)	130 - PERMANENT MILITARY
(6)	550 STEADMAN HALL - STUDENTS

SUPPORT BUILDINGS

100	SENTRY BLDG
101	SECURITY BLDG
T114	NURSERY
T115	CHAPEL
134	EM (OPEN) MESS / 6-BOWLING LANES
140	ADMINISTRATION/MILITARY & CIVILIAN PERSONNEL'S
T142	COMMISSARY
T155	COMPTROLLER/MILITARY PAY/TRANSPORTATION OFFICE
156	AMAT RADIO STATION (MARS)/PRINT SHOP
160	FACILITIES ENGINEERING
165	SUPPLY/PURCHASING & CONTRACTING OFFICE
170	MOTOR POOL REPAIR BLDG
201	FIRE STATION
T210	AUTO CRAFT SHOP/RECREATIONAL EQUIPMENT
T220	TAILOR SHOP/MEDICAL LAB
225	INFIRMARY
230	BASE EXCHANGE, 231 BASE EXCHANGE WAREHOUSE
T232	SERVICE STATION
250	LIBRARY/POST OFFICE/NAFA OFFICE/SPECIAL SERVICES
251	GYMNASIUM/HANDBALL COURTS
T260	RECREATION BLDG/TEEN CLUB
261	THEATER
262	COMMISSARY WAREHOUSE
353	SCOUT HUT
560	EM GALLEY MESS
T831	SMALL ARMS INDOOR RANGE
205	CREDIT UNION

LEGEND:

- POND BORE HOLE LOCATIONS
- TEST PIT LOCATIONS
- PERCOLATION TEST LOCATIONS
- GROUNDWATER LEVEL TEST LOCATIONS

STRUCTURES

135	WATER TANK 250,000 GALS
135	WATER TANK 200,000 GALS
136	WATER TANK 250,000 GALS
152	GRAVEL BINS
523	SPRAY FIELD PUMP VAULT
520, 521 & 522	VEHICULAR BRIDGES
601	WATER TANK 4,000 GALS
604	WATER TANK 20,000 GALS

LEGEND

- 134 — BLDG PERMANENT
- T160 — BLDG TEMPORARY
- ROADS & PARKING
- GRAVEL ROADS
- RESERVATION
- BOUNDARY
- BRIDGE

SMALL BLDGS & SHELTERS

WAITING SHELTERS	166, 310, 335, 406, 407, & 436
SHELTERS, LAKE AREA	806, 807, 808, 809, 810
121	OUTDOOR STORAGE
128	RECREATION BUILDING
129	GARBAGE CAN CLEANING SHED
137	WATER CHLORINATION & VALVE PIT BLDG
139	TV HEAD AMPLIFIER BLDG
159, 163	FLAMABLE STR BLDGS
161	FACILITIES ENGINEERING STORAGE BLDG
171	STORAGE BLDG
172	OIL STR BLDG
241, 242	ATHLETIC FIELD DUG-OUTS
243	TOILET (ATHLETIC FIELD)
244	MAINT BLDG (ATHLETIC FIELD)
302	CAR PORT FOR 301
329	CAR PORT FOR 330
332	CAR PORT FOR 331
504	STORAGE BLDG (E.M.T. SCHOOL)
516	SPRAY FIELD CONTROL HOUSE
524	SEWAGE CHLORINATION HOUSE
539	AMMO STORAGE
540	AMMO STORAGE
T805	PUMP HOUSE (LAKE AREA)
811	TOILET (LAKE AREA)
812	PAVILION (LAKE AREA)
823	TOILET, RECREATION FIELD
824	REFRESHMENT STAND
T825, T826 & T833	TRAP HOUSES
T827, T828 & T832	SKEET HOUSES
T600	PUMP STATION
T602	WELLHOUSE

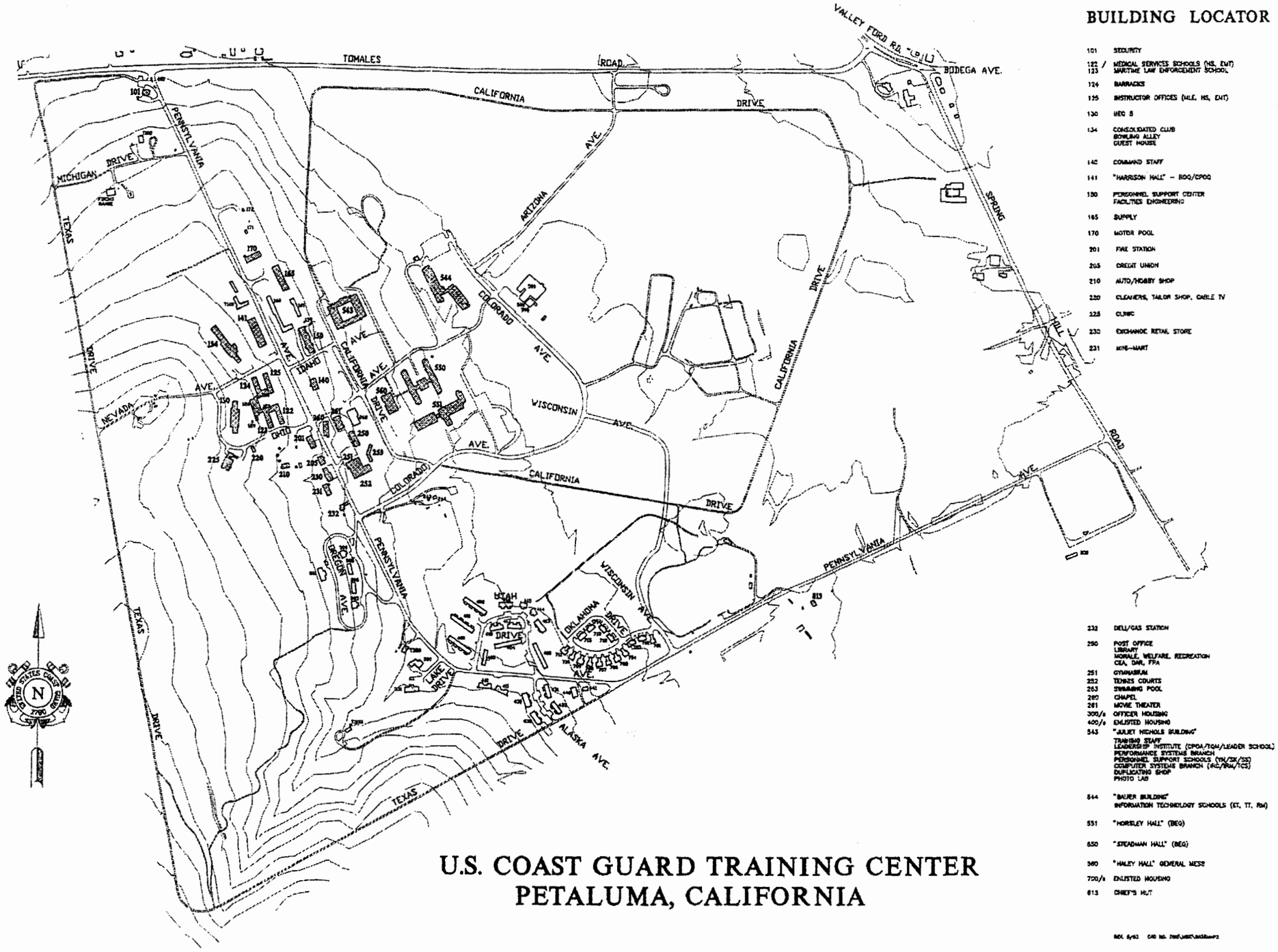
U.S. COAST GUARD TRAINING CENTER
PETALUMA, CALIFORNIA
ENGINEERING

SOILS TEST LOCATIONS

FN TOPO-0004

84-3-115

G-6



BUILDING LOCATOR

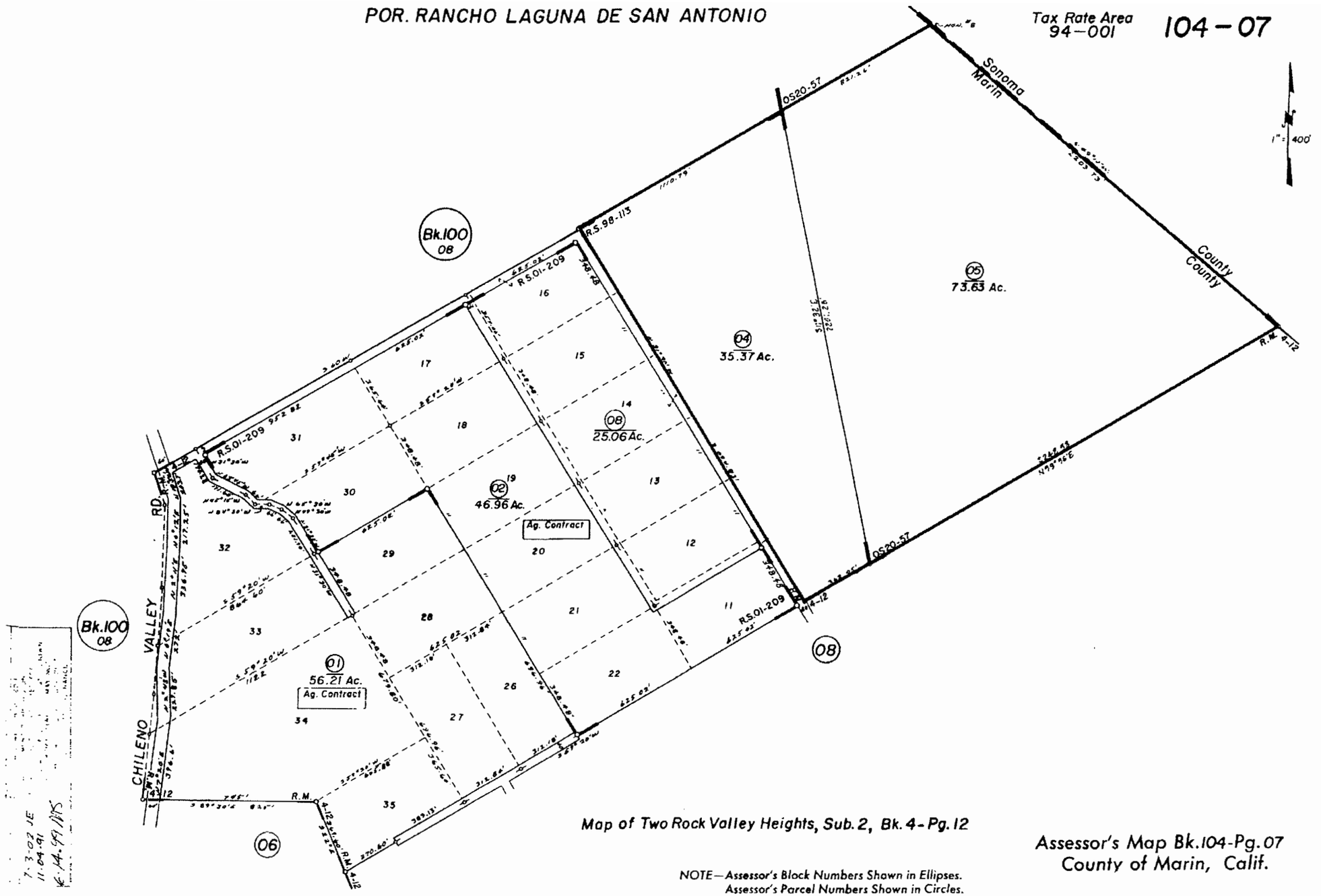
101	SECURITY
122 / 123	MEDICAL SERVICES SCHOOLS (MS, EMT) MARITIME LAW ENFORCEMENT SCHOOL
124	BARRACKS
125	INSTRUCTOR OFFICES (MLE, MS, EMT)
130	MEQ 5
134	CONSOLIDATED CLUB BOWLING ALLEY GUEST HOUSE
140	COMMAND STAFF
141	"HARRISON HALL" – BOQ/CPOQ
150	PERSONNEL SUPPORT CENTER FACILITIES ENGINEERING
165	SUPPLY
170	MOTOR POOL
201	FIRE STATION
205	CREDIT UNION
210	AUTO/HOBBY SHOP
220	CLEANERS, TAILOR SHOP, CABLE TV
225	CLINIC
230	EXCHANGE RETAIL STORE
231	MINI-MART
232	DELI/GAS STATION
250	POST OFFICE LIBRARY MORALE, WELFARE, RECREATION CEA, DAR, FFA
251	GYMNASIUM
252	TENNIS COURTS
253	SWIMMING POOL
260	CHAPEL
261	MOVIE THEATER
300/s	OFFICER HOUSING
400/s	ENLISTED HOUSING
543	"JULIET NICHOLS BUILDING" TRAINING STAFF LEADERSHIP INSTITUTE (CPOA/TQM/LEADER SCHOOL) PERFORMANCE SYSTEMS BRANCH PERSONNEL SUPPORT SCHOOLS (YN/SK/SS) COMPUTER SYSTEMS BRANCH (MC/RM/TC) DUPLICATING SHOP PHOTO LAB
544	"BAUER BUILDING" INFORMATION TECHNOLOGY SCHOOLS (ET, TT, RM)
551	"HORSLEY HALL" (BEQ)
650	"STEADMAN HALL" (BEQ)
560	"HALEY HALL" GENERAL MESS
700/s	ENLISTED HOUSING
813	CHIEF'S HUT

U.S. COAST GUARD TRAINING CENTER
PETALUMA, CALIFORNIA

POR. RANCHO LAGUNA DE SAN ANTONIO

Tax Rate Area 94-001

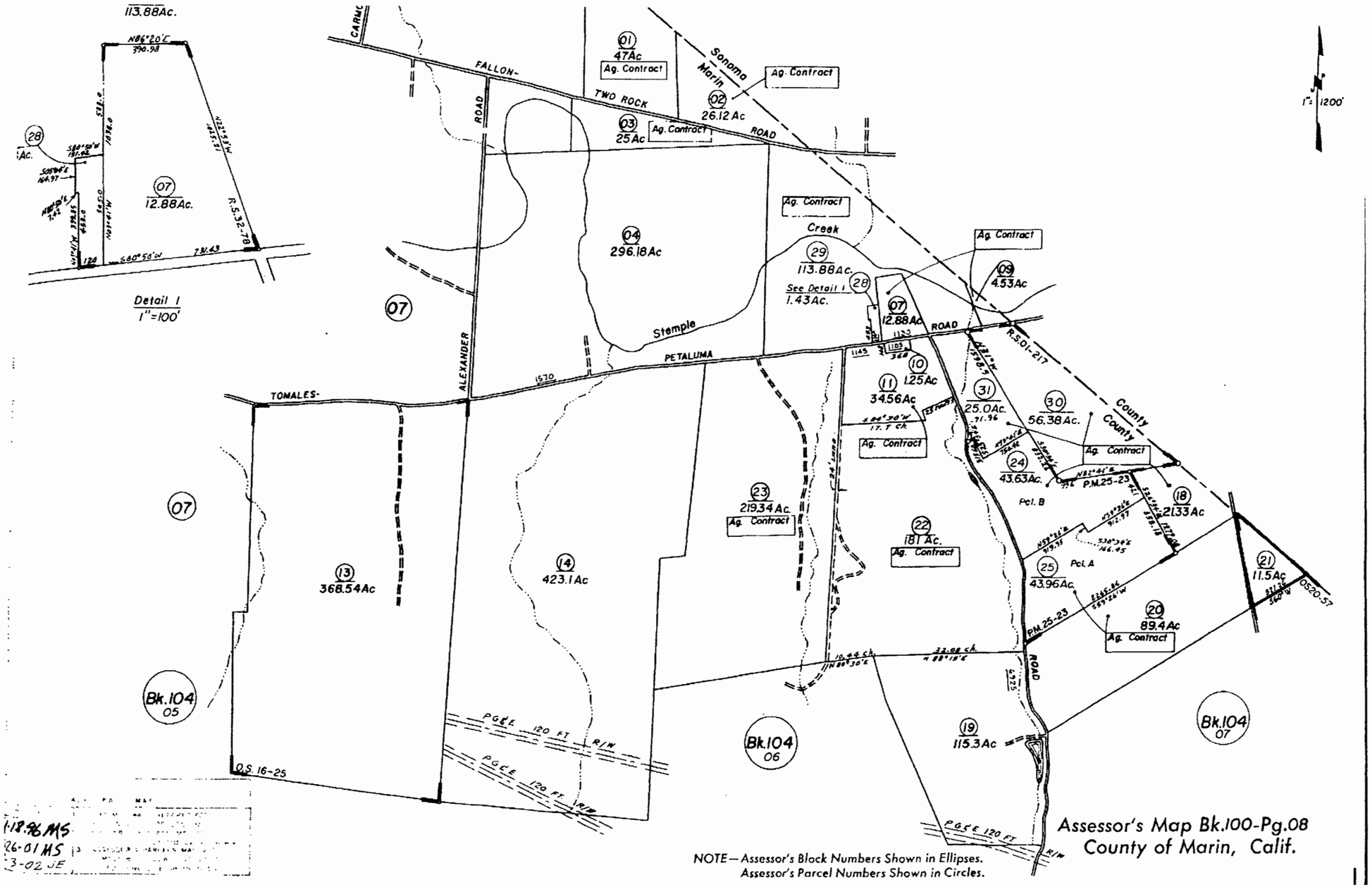
104-07



Map of Two Rock Valley Heights, Sub. 2, Bk. 4-Pg. 12

NOTE—Assessor's Block Numbers Shown in Ellipses.
Assessor's Parcel Numbers Shown in Circles.

Assessor's Map Bk.104-Pg.07
County of Marin, Calif.



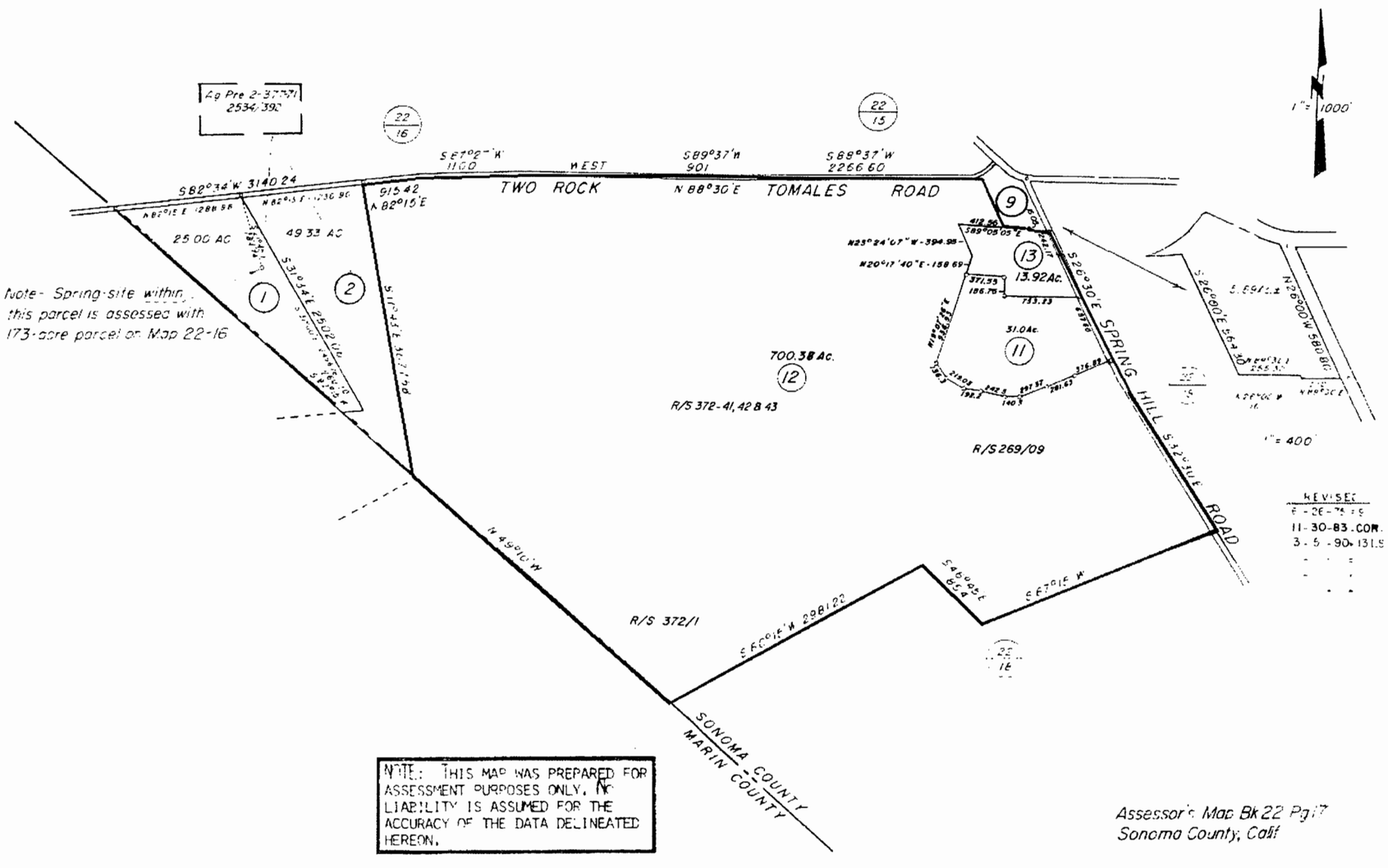
NOTE—Assessor's Block Numbers Shown in Ellipses.
Assessor's Parcel Numbers Shown in Circles.

Assessor's Map Bk.100-Pg.08
County of Marin, Calif.

COUNTY ASSESSOR'S PARCEL MAP

TAX CODE AREA
168-001

22-17



Note- Spring site within this parcel is assessed with 173-acre parcel on Map 22-16

NOTE: THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA DELINEATED HEREON.

Assessor's Map Bk 22 Pg 17
Sonoma County, Calif

SUPPORT BUILDINGS

100 SENTRY BUILDING
101 SECURITY BUILDING
106 SMALL ARMS FIRING RANGE
115 CHILD DEVELOPMENT CENTER ANNEX
134 CONSOLIDATED CLUB/BOWLING/GUEST HOUS
140 ADMIN/MILITARY & CIV. PERSONNEL
150 FACILITIES ENGINEERING - SERVICES & OSC
160 FACILITIES ENGINEERING SHOPS
165 SUPPLY/PURCH. & CONTRACTING OFFICE
170 MOTOR POOL REPAIR BUILDING
201 FIRE STATION
205 CREDIT UNION
210 MUESA
220 TAILOR SHOP
225 MEDICAL/DENTAL CLINIC
230 BASE EXCHANGE
231 MINI MART
232 SERVICE STATION
250 LIBRARY/POST OFFICE/NAFA OFFICE/MWR
251 PATTERSON SPORTS COMPLEX
253 SWIMMING POOL
260 CHAPEL
261 THEATER
262 CGES WAREHOUSE
353 SALAMANDER PAVILLION
440 CHILD DEVELOPMENT CENTER - MAIN
441 CHILD DEVELOPMENT CENTER - PRE-K
442 CHILD DEVELOPMENT CENTER - INFANTS
560 GALLEY MESS
813 CHIEF'S HUT

STRUCTURES

132 WATER TANK 250,000 GALS
133 WATER TANK 200,000 GALS
136 WATER TANK 200,000 GALS
520, 521 & 522 VEHICULAR BRIDGES
525 SPRAY FIELD PUMP VAULT
601 WATER TANK 4,000 GALS
604 WATER TANK 20,000 GALS

BEQ BARRACKS

(1) 122 2ND FLOOR-STUDENTS
(3) 124 GUEST HOUSING
(4) 125 1ST FLOOR - STUDENTS
128 1ST FLOOR - PERMANENT MILITARY
(5) 130 PERMANENT MILITARY / NAVCEN
141 HARRISON HALL / UPH
(6) 550 STEADMAN HALL/STUDENTS
551 HORSLEY HALL

EM HOUSING - 30 UNITS

701 2 UNITS 740 2 UNITS
702 2 UNITS 711 2 UNITS
703 2 UNITS 712 2 UNITS
704 2 UNITS 713 2 UNITS
705 2 UNITS 714 2 UNITS
706 2 UNITS 715 2 UNITS
707 2 UNITS
708 2 UNITS
709 2 UNITS

SCHOOL BUILDINGS

122 1ST FLOOR - HS/EMT SCHOOL
123 HS/EMT SCHOOL
125 2ND FLOOR - HS/MILE/EMT SCHOOL
126 FS SCHOOL
127 HS/EMT SCHOOL BREAK AREA
128 2ND FLOOR - ACADEMIC INSTRUCTION BUILDING
500 INSTRUCTIONAL BUILDING
543 INSTRUCTIONAL BUILDING/OFFICES
544 INSTRUCTIONAL BUILDING/OFFICES

SMALL BLDGS & SHELTERS

WAITING SHELTERS-166, 310, 335, 406, 407 & 436
SHELTERS, LAKE AREA- 805, 807, 808, 809, & 810
121 OUTDOOR STORAGE
129 GARBAGE CAN CLEANING SHED
137 WATER CHLORINATION & VALVE PIT BLDG
139 TV HEAD AMPLIFIER BLDG
159 163 FLAMMABLE STORAGE BUILDING
161 FACILITIES ENGINEERING STORAGE BLDG
171 STORAGE BLDG
172 OIL STORAGE BLDG
241 242 ATHLETIC FIELD DUG-OUTS
243 TOILET (ATHLETIC FIELD)
244 MAINT BLDG (ATHLETIC FIELD)
504 RESERVE STORAGE
516 SPRAY FIELD CONTROL HOUSE
524 SEWAGE CHLORINATION HOUSE
539 AMMO STORAGE
540 AMMO STORAGE
545 BAUER MECHANICAL BUILDING
600 PUMP STATION
602 WELL HOUSE
805 PUMP HOUSE (LAKE AREA)
809 PAVILLION (LAKE AREA)
811 TOILET (CHIEF HUT)
823 TOILET (SKEET RANGE)
824 SKEET RANGE FIELD HOUSE

OFFICER HOUSING - 14 UNITS

301 DUPLEX
305 DUPLEX
306 DUPLEX
308 DUPLEX
309 DUPLEX
320 SINGLE UNIT
330 CO/QTRS
331 DUPLEX

EM HOUSING - 84 UNITS

400 8 UNITS 414 2 UNITS
401 8 UNITS 415 2 UNITS
402 8 UNITS 416 CO/QTRS
403 8 UNITS 417 DUPLEX
404 8 UNITS 418 4 UNITS
405 8 UNITS 430 4 UNITS
410 2 UNITS 431 4 UNITS
411 2 UNITS 432 4 UNITS
413 4 UNITS 433 4 UNITS

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

APPENDIX H

INTERVIEWS

APPENDIX H

INTERVIEWS

TABLE OF CONTENTS

CONVERSATION RECORD	TIME 1444	DATE 28 May 2003

TYPE

[ ] VISIT [ ] CONFERENCE [X] TELEPHONE [X] INCOMING [ ] OUTGOING

NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.
Scott Forsythe	NARA-Great Lakes Region 7358 Pulaski Rd. Chicago, IL 60629	773-581-7816

SUBJECT

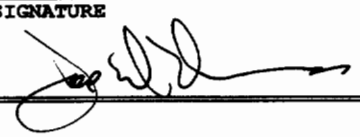
Two Rock Ranch Station

SUMMARY

Mr. Scott Forsythe was in the Army Security Agency and served at Two Rock Ranch Station for one month in 1969 prior to being deployed to Vietnam. Mr. Forsythe stated that while there he received only classroom training. No one on the installation had any weapons with the exception of the side arms carried by the Military Police.

ACTION REQUIRED

None

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Joe W. Vann III	CEMVR-ED-DO	(309) 794-5163
SIGNATURE 	TITLE Health & Safety Specialist (UXO)	DATE 28 May 2003

CONVERSATION RECORD	TIME 1430	DATE 28 May 2003

TYPE

☐ VISIT ☐ CONFERENCE ☒ TELEPHONE ☐ INCOMING ☒ OUTGOING

NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.
James D. Ford	635 County Road 732 Cedar Bluff, AL 35959	256-526-6072

SUBJECT

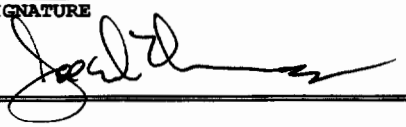
Two Rock Ranch Station

SUMMARY

Mr. James D. Ford was in the Military Intelligence Corps assigned to the Army Security Agency. From 1962-63, Mr. Ford was the NCOIC of Operations for Two Rock Ranch Station. Mr. Ford stated that the sole purpose of Two Rock Ranch Station was to monitor signal transmissions. He had no knowledge of any ranges other than the skeet range being present on the installation. Mr. Ford stated that the side arms carried by the Military Police Detachment were the only military weapons on the installation.

ACTION REQUIRED

None

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Joe W. Vann III	**CEMVR-ED-DO**	**309-794-5161**
SIGNATURE 	TITLE **Health & Safety Specialist (UXO)**	DATE **28 May 2003**

CONVERSATION RECORD	TIME 1101	DATE 21 May 2003

TYPE

☐ VISIT ☐ CONFERENCE ☒ TELEPHONE ☐ INCOMING ☒ OUTGOING

NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.
Eugene A. Ulbrickson	4910 33rd St. Ct. NE Tacoma, WA 98422	253-927-9459

SUBJECT:
Two Rock Ranch Station

SUMMARY

Mr. Eugene A. Ulbrickson was assigned to temporary duty at Two Rock Ranch Station in early 1969. His job was monitoring signal transmissions for the Army Security Agency. Mr. Ulbrickson remembers a skeet range being present, but he personally did not fire any weapons while on the installation.

ACTION REQUIRED
None

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Joe W. Vann III	**CEMVR-ED-DO**	**(309)794-5163**
SIGNATURE	TITLE	DATE
	Health & Safety Specialist (UXO)	**21 May 2003**

CONVERSATION RECORD	TIME 1238	DATE 21 May 2003

TYPE

☐ VISIT ☐ CONFERENCE ☒ TELEPHONE ☐ INCOMING ☒ OUTGOING

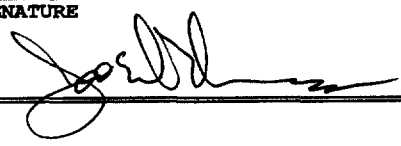
NAME OF PERSON CONTACTED		TELEPHONE NO.
Carl Smith	PO Box 140503 Nashville, TN 31274	615-885-0294

SUBJECT
Two Rock Ranch Station

SUMMARY

Mr. Carl Smith was stationed at Two Rock Ranch Station in 1968 and 1969. Mr. Smith stated that he was assigned to monitor electronic traffic. Mr. Smith was also a member of the installation's volunteer fire department. Mr. Smith stated that during the period he was present, all fire arms training was conducted at the Presidio of San Francisco.

ACTION REQUIRED
None

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Joe W. Vann III	CEMVR-ED-DO	(309)794-5163
SIGNATURE 	TITLE Health & Safety Specialist (UXO)	DATE 12 May 2003

CONVERSATION RECORD	TIME 1426	DATE 20 May 2003

TYPE

☐ VISIT ☐ CONFERENCE ☒ TELEPHONE ☐ INCOMING ☒ OUTGOING

NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.
Glenn Pylor	501 Anita Space 166 Chula Vista, CA 91911	619-425-1043

SUBJECT

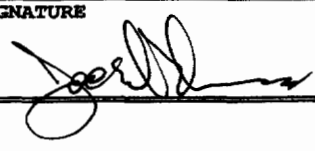
Two Rock Ranch Station

SUMMARY

Mr. Glenn Pylor was a Technician Fifth Class assigned to the 2nd Signal Security Battalion at Two Rock Ranch Station from September 1943 until January 1944. Mr. Pylor stated that while he was present, no firing or use of any ordnance occurred. There were no ranges. There was a Military Police detachment. Signal Corps personnel assigned to guard duty were issued M1911 .45 caliber pistols and ammunition at the guardhouse and turned them in at the end of each shift. The ammunition was stored at the guardhouse.

ACTION REQUIRED

None

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Joe W. Vann III	**CEMVR-ED-DO**	**(309) 794-5163**
SIGNATURE 	TITLE **Health & Safety Specialist (UXO)**	DATE **20 May 2003**

CONVERSATION RECORD	TIME 1345	DATE 10 July 2003

TYPE

☐ VISIT ☐ CONFERENCE ☒ TELEPHONE ☐ INCOMING ☒ OUTGOING

NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.
William F. Vernau, Jr.	30 Stone House CIR Newark, OH 43055	740-344-7329

SUBJECT

Two Rock Ranch Station

SUMMARY

LTC William F. Vernau, Jr. (retired), served twice a Two Rock Ranch Station. From 1949 until 1952 he served as the Sergeant Major for Two Rock Ranch Station and from 5 August 1968 until 19 September 1969 he was the commanding officer. During his first tour of duty, he stated that there were no ranges of any description on the post. Ammunition and small arms used by the military police were stored in the guardhouse. Recreational bird hunting parties organized by Colonel O'Mohundro did the only firing of weapons. Military activities at the station were confined to the monitoring of signal transmissions.

During his tour as commanding officer, LTC Vernau stated that the only operational range was the recreational skeet range. He also stated that the two magazines, buildings 539 and 540 were used to store shotgun ammunition for the skeet range. Ammunition for the military police detachment was still stored at the guardhouse. The 'Vietnam Village', which was used every other month during this period as a part of a Vietnam Leadership Course, was a makeshift affair constructed of local materials. LTC Vernau stated that only blank small arms ammunition was used in exercises in this area as it was adjacent to the property line and there were occupied ranch buildings on the other side of the fence. LTC Vernau recalls no gas mask training conducted while he was in command, nor any operational pistol range.

ACTION REQUIRED

None

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Joe W. Vann III	**CEMVR-ED-DO**	**(309)794-5163**
SIGNATURE	TITLE	DATE
	Health & Safety Specialist (UXO)	**10 July 2003**

CONVERSATION RECORD	TIME 1500	DATE 10 July 2003

TYPE

☐ VISIT ☐ CONFERENCE ☒ TELEPHONE ☐ INCOMING ☒ OUTGOING

NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.
Joseph F. Jewett, Jr.	149 Del Mar Carmel, CA 93923	831-625-6963

SUBJECT

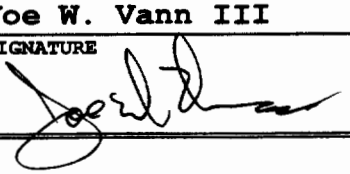
Two Rock Ranch Station

SUMMARY

LTC Joseph F. Jewett, Jr. (retired) was the executive officer of Two Rock Ranch Station under LTC Vernau and commanding officer from 29 September 1969 until 21 August 1970. LTC Jewett's recollections of Two Rock Ranch Station correspond in every detail with that of LTC Vernau.

ACTION REQUIRED

None

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Joe W. Vann III	**CEMVR-ED-DO**	**(309)794-5163**
SIGNATURE 	TITLE **Health & Safety Specialist (UXO)**	DATE **10 July 2003**

CONVERSATION RECORD	TIME 1530	DATE 09 June 2003

TYPE

[ ] VISIT [ ] CONFERENCE [X] TELEPHONE [ ] INCOMING [X] OUTGOING

NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.
Sheridan Melogy	PO Box 333 Fernandinar, FL 32035	904-261-0980

SUBJECT

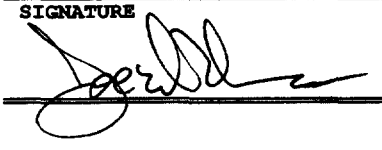
Two Rock Ranch Station

SUMMARY

Mr. Sheridan Melogy was stationed at Two Rock Ranch Station from 1966 to 1967 as a member of the Army Security Agency. Mr. Melogy recalls the 'Vietnam Village' being used to conduct sweep and clear training exercises during a leadership course. According to Mr. Melogy, only small arms blank ammunition was used, no grenade simulators.

ACTION REQUIRED

None

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Joe W. Vann III	CEMVR-ED-DO	(309)794-5163
SIGNATURE 	TITLE Health & Safety Specialist (UXO)	DATE 09 June 2003

CONVERSATION RECORD	TIME 0730	DATE 11 July 2003

TYPE

☐ VISIT ☐ CONFERENCE ☒ TELEPHONE ☐ INCOMING ☒ OUTGOING

NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.
Don O'Mohundro	148 Vista View PL Petaluma, CA 94592	707-763-1681

SUBJECT

Two Rock Ranch Station

SUMMARY

Mr. Don O'Mohundro is the son of the late Colonel Wiley H. O'Mohundro, commanding officer of Two Rock Ranch Station from 11 July 1950 until 30 August 1954. Mr. Don O'Mohundro lived on the installation during this period. Mr. O'Mohundro recalls no ranges of any kind existing on the installation during this period, although he was only eleven years old at the time. Mr. O'Mohundro referred to his older sister as a better source of information.

ACTION REQUIRED

None

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Joe W. Vann III	**CEMVR-ED-DO**	**(309)794-5163**
SIGNATURE	**TITLE**	**DATE**
	**Health & Safety Specialist (UXO)**	**11 July 2003**

CONVERSATION RECORD	TIME 1030	DATE 11 July 2003

TYPE

☐ VISIT ☐ CONFERENCE ☒ TELEPHONE ☐ INCOMING ☒ OUTGOING

NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.
June Studdert	2412 Magnolia Ave. Petaluma, CA 94592	707-763-1681

SUBJECT

Two Rock Ranch Station

SUMMARY

Mrs. June Studdert is the older sister of Don O'Mohundro and the daughter of the late Colonel Wiley H. O'Mohundro. Mrs. Studdert confirmed that during the period of 1950-1954, no firing of military weapons occurred on Two Rock Ranch Station.

ACTION REQUIRED

None

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Joe W. Vann III	**CEMVR-ED-DO**	**(309)794-5163**
SIGNATURE	**TITLE** **Health & Safety Specialist (UXO)**	**DATE** **11 July 2003**

CONVERSATION RECORD	TIME 0830	DATE 26 June 2003

TYPE

[X] VISIT [ ] CONFERENCE [ ] TELEPHONE [ ] INCOMING [ ] OUTGOING

NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.
Patrick Nelligan	USCG Training Center Petaluma 599 Tomales Rd. Petaluma, CA 94592	707-765-7225

SUBJECT

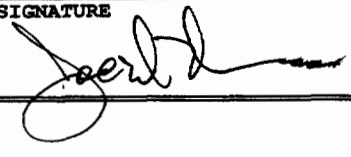
Two Rock Ranch Station

SUMMARY

Mr. Patrick Nelligan is the Environmental Protection Specialist for the Facilities Engineering Office of the USCG Training Center Petaluma. As such, he is the primary contact for all FUDS issues. Mr. Nelligan acted as escort during the site visit and provided the site visit team with many documents and maps. Mr. Nelligan personally remembers firing M1 Carbines as a Boy Scout on the former pistol range at Two Rock Ranch Station shortly after the end of the Korean War. According to Mr. Nelligan, the former pistol range has never been used by the Coast Guard, and the soil has been tested with no elevated lead levels being detected. The former Army landfill has been sampled, the top two feet of soil removed, capped, and has been recommended by the Sonoma County Solid Waste Agency to the California Environmental Protection Agency for a final decision. The recreational skeet range is still being beneficially used by the Coast Guard and others and is ineligible for inclusion in the FUDS inventory. According to Mr. Nelligan, all FUDS issues raised in the INPR for the former Two Rock Ranch Station have been successfully resolved and mitigated. There have been no reports of OE since closure or transfer.

ACTION REQUIRED

None

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Joe W. Vann III	**CEMVR-ED-DO**	**(309)794-5163**
SIGNATURE 	TITLE **Health & Safety Specialist (UXO)**	DATE **12 August 2003**

CONVERSATION RECORD	TIME 1230	DATE 22 August 2003

TYPE

☐ VISIT ☐ CONFERENCE ☒ TELEPHONE ☐ INCOMING ☒ OUTGOING

NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.
C. David Strand	Lazo Technologies 611 W. Mockingbird Lane Dallas, TX 75247	214-652-9889

SUBJECT

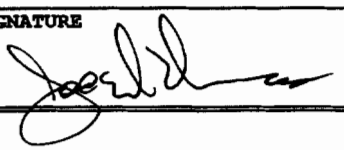
Two Rock Ranch Station

SUMMARY

Mr. C. David Strand is the Executive Vice President of Lazo Technologies in Dallas, Texas. In 1966, while studying French at the Defense Language Institute at the Presidio of Monterrey, Mr. Strand was required to attend a refresher in gas mask training. According to Mr. Strand, they were bussed from Monterrey to Two Rock Ranch Station for this event because it was the nearest ASA facility. Mr. Strand stated that the training consisted of fitting the gas masks and then entering a canvas covered frame. Inside this enclosure, a NCO heated CN pellets on a tin can covered candle. Apparently, an excessive number of pellets were used as Mr. Strand recalls that several individuals became ill and upon their return to Monterrey that evening, it was necessary for them to disrobe and air out their uniforms and equipment prior to entering the barracks.

ACTION REQUIRED

None

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Joe W. Vann III	**CEMVR-ED-DO**	**(309)794-5163**
SIGNATURE 	TITLE **Health & Safety Specialist (UXO)**	DATE **22 August 2003**

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

APPENDIX I

SITE SAFETY AND HEALTH PLAN (SSHP)

U.S. ARMY CORPS OF ENGINEERS
ROCK ISLAND

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
for
FORMERLY USED DEFENSE SITES
ORDNANCE AND EXPLOSIVES

APPENDIX A306

For the former

Two Rock Ranch Station
Petaluma, California
Project Number J09CA098303

1. PURPOSE

The purpose of this appendix is to provide specific site characteristics of OE potential for the Two Rock Ranch Station, Petaluma, California. This appendix supplements the main safety plan.

2. ON-SITE ORGANIZATION/COORDINATION

Members of the inspection/coordination (SI) team are shown in Table A306.1. The number of inspection personnel team members on-site will not exceed 4 per inspection. Guides, property owners, and escorts are not included in this figure. However, the number of personnel present on the site must be kept to a minimum consistent with safe and efficient inspection practices.

TABLE A306.1
ON-SITE ORGANIZATION/COORDINATION

FUNCTION	ORGANIZATION	POC	TELEPHONE
Assessment Team	CEMVR-ED-DO	Joe Vann UXO Safety Spec	(309) 794-5163
	CEMVR-ED-DO	Chris Churney Chemical Engineer	(309) 794-5465
Geographic District Support	CESPK-ED-E	Gerald Vincent	(916) 557-7452
Project Engineer	CEMVR-ED-DO	Robert E. Hoffman Environmental Engineer PE	(309) 794-5504
Industrial Hygiene	MCXM-PMA	Bob Platt Hygienist	(309) 782-0807
HNC Support	CEHNC-OE-EM	Wayne Galloway UXO Safety Spec	(256) 895-1582 (800) 627-3532 PIN 707-2534

3. SITE DESCRIPTION

a. The site is located approximately 8 miles west of the City of Petaluma. Two Rock Ranch Station was formerly a dairy and poultry farm before the U.S. Army Signal Corps acquired a total of 876.41 acres in eight declarations of taking between 1945 and 1948. The site was used as a radio receiving and relay station until 1971. In 1947, 35.37 acres were transferred to the War Assets Administration (WAA). In 1851, 5.36 were conveyed to the Two Rocks Union School District. In July 1971, the 35.37-acre parcel from the WAA, the remaining 835.68 acres, and all easements were transferred to the U.S. Department of Transportation (DOT) for use a U.S. Coast Guard training center. In 1985, DOT transferred two parcels, one 35.37 acres and another 31.0 acres, to private individuals. The U.S. Coast Guard is currently under the Department of Homeland Defense.

b. Ordnance and Explosives sites of interest include a former small arms range, and the former locations of two small arms storage buildings and a mock Vietnam village. All are located on the Coast Guard training center, now known as TRACEN, Petaluma.

4. LIST OF EMERGENCY TELEPHONE NUMBERS

TABLE A306.2
EMERGENCY PHONE NUMBERS

FUNCTION	ORGANIZATION	TELEPHONE
Medical Facility	Petaluma Valley Hospital, 400 North McDowell Blvd; Petaluma, CA	(707) 778-1111
Police Department	TRACEN Police	(707) 765-7215
Fire Department	TRACEN Fire Station	(707) 765-7355
Safety Office	COE, Huntsville, AL	(256) 895-1582
Explosive Ordnance Disposal	87th Ord Co. (EOD), Moffett Field, CA	(415) 603-8301

5. ORDNANCE AND EXPLOSIVES POTENTIAL

Table A306.3 lists items that may have been utilized at the former Two Rock Ranch Station with potential hazards associated with each.

TABLE A306.3
POTENTIAL OE HAZARDS AND EVALUATION

OE	POTENTIAL HAZARD
Small Arms	(1.4) Moderate fire; no blast

6. PERSONAL PROTECTIVE CLOTHING

a. Table A306.4 includes personal protective equipment that must be readily available should it be required/needed. As each site presents a unique set of circumstances, the determination of "need" shall be based on the information in the following table, and determined by the team leader.

TABLE A306.4
PERSONNEL PROTECTIVE CLOTHING

WORK AREA/ZONE	JOB FUNCTION/TASK	LEVEL OF CLOTHING
All Areas	Visual Inspection	Waterproof Safety Shoes (as req'd)
		Hard Hat (as req'd)
		Eye Protection (as req'd)
		Hearing Protection (as req'd)

b. Table A306.5 lists specialized equipment anticipated for general safety purposes. The team leader is responsible for determining appropriate use of the equipment.

TABLE A306.5
GENERAL EQUIPMENT

TYPE	COMMENT
Global Positioning System (GPS)	Used to determine locations of OE and significant landmarks.
Magnetometer	Used to enhance safety by reducing the threat of unseen OE. Will not be used as the sole safety precaution in areas of dense brush.
First Aid Kit	Used to treat any minor injuries
Cellular Phone	Used to request medical or other assistance.

7. SITE SAFETIES AND STANDING OPERATING SAFETY PROCEDURES, ENGINEERING CONTROLS, AND WORK PRACTICES

a. General Precautions: Prior to the on-site visit, all team members are required to read this SSHP and sign the form acknowledging that they have read and will comply. In addition, the SSHO shall hold a brief tailgate meeting in which the site-specific topics regarding the days activities will be discussed. The buddy system will be enforced at all times. If unanticipated hazardous conditions arise, team members are to stop work, leave the immediate area, and notify the proper authorities.

b. Standard safety practices will be followed at all times. All personnel accompanying the SI team will be briefed on the team's purpose and the requirement of not disturbing any OE material during the investigation.

c. Intrusive sampling will not be permitted during conduct of inspections. Any OE located, as required, will be brought to the attention of the local law enforcement agency, which will request EOD support. The team leader will also notify USACE, Huntsville Engineer Support

Center Safety Office. Trained EOD personnel shall conduct the handling and disposal of any found ordnance.

d. All personnel on site, to include property owners, guides, and escorts, must be informed of the potential dangers inherent in OE. They must be instructed not to handle, disturb or move the found OE in any way or manner. Failure of individuals who are not members of the inspection team to follow such instructions shall result in the immediate termination of that phase of the visual inspection.

e. Hazards expected from indigenous wild creatures are minimal. Access to the site maybe from an unimproved road and loose footing is to be expected. High top boots should be worn to provide ankle support in the event of tripping and falling and for protection against snakebites. Proper clothing for protection from the environment and insects is recommended.

f. Private property rights and trespassing ordinances will be observed without exception.

8. SITE RULES/PROHIBITIONS:

a. At any sign of unanticipated hazardous conditions, stop tasks. Leave the immediate area and notify the SSHO. Smoking, eating, and drinking are allowed in designated areas only.

b. MATERIAL HANDLING PROCEDURES: **Do not** handle

c. DRUM HANDLING PROCEDURES: **Do not** handle.

d. CONFINED SPACE ENTRY: **Do not** enter.

e. IGNITION SOURCE AND ELECTRICAL PROTECTION: Smoke in designated areas only.

f. SPILL CONTAINMENT: N/A

g. EXCAVATION SAFETY: **Do not** enter trenches/excavations.

h. ILLUMINATION: Work during daylight hours only.

i. SANITATION: Use existing sanitary facilities.

j. BUDDY SYSTEM: Two (2) individuals on-site maintaining constant contact with each other. This shall be adhered to at all times.

k. ENGINEERING CONTROLS: N/A

l. HEAT/COLD STRESS: Dress appropriately. Take sufficient breaks and drink plenty of fluids. Watch for signs/symptoms of cold/heat stress. Monitoring may be applicable depending on site weather conditions and types of Personal Protective Equipment (PPE) worn.

m. ORDNANCE:

1. General Information:

(A) The cardinal principle to be observed involving explosives, ammunition, severe fire hazards and/or toxic materials is to limit the exposure of a minimum number of personnel, for the minimum amount of time, to a minimum amount of hazardous material consistent with a safe and efficient operation.

(B) The age or condition of an ordnance item does not decrease the effectiveness. Ordnance that has been exposed to the elements for extended periods of time become more sensitive to shock, movement, and friction due to the fact that the stabilizing agent in the explosives may be degraded.

(C) When chemical agents may be present, further-precautions are necessary. If the munition item(s) has green markings, leave the area immediately since the item(s) may contain a chemical filler.

(D) Consider ordnance that has been exposed to fire as extremely hazardous. Chemical and physical changes may have occurred to the contents, which render them more sensitive than they were in their original state.

2. On-site Instructions:

(A) **DO NOT** touch or move any ordnance item(s) regardless of the markings or apparent condition.

(B) **DO NOT** visit an ordnance site if an electrical storm is occurring or approaching. If a storm approaches during a site visit, leave the site immediately and seek shelter.

(C) **DO NOT** use radios nor cellular phones in the vicinity of suspect ordnance items.

(D) **DO NOT** walk across an area where the ground can not be seen. If dead vegetation or animals are observed, leave the area immediately due to potential contamination by chemical agent.

(E) **DO NOT** drive vehicles into a suspected OEW area, use clearly marked lanes.

(F) **DO NOT** carry matches, cigarettes, lighters, or other flame-producing devices onto an OE site.

(G) **DO NOT** rely on color code for positive identification of ordnance item(s) nor their contents.

(H) Approach ordnance items from the side, avoid approaching the front or rear areas.

(I) Always assume ordnance items contain a live charge until it can be ascertained otherwise.

3. Specific actions upon locating ordnance:

(A) **DO NOT** touch, move, or jar any ordnance item(s), regardless of its' apparent condition.

(B) Approach the item(s) cautiously. Take photographs and make a full description.

Take notes of the markings or any other identifying features.

(C) **DO NOT** be misled by markings on the ordnance item stating "practice bomb", "dummy", or "inert". Even practice bombs contain explosive charges that are used to mark/spot the point of impact. The item(s) could also be mismarked.

(D) **DO NOT** roll the item over nor scrape the item to identify the markings.

(E) The location of any ordnance items found during site investigations should be clearly marked on the map so as to be easily located and avoided.

9. SIGNATURES

I have read, understand and agree to abide by the provisions as detailed in this Site Safety and Health Plan for Ordnance and Explosives (OE) Investigation at the former Two Rock Ranch Station, Petaluma, California. Failure to comply with these provisions may lead to dismissal from the work site. My signature below signifies that I understand, and will follow the requirements of the above Site Safety Plan. Furthermore, I attended and participated in the safety briefing conducted prior to the on-site visit.

PRINT NAME	SIGNATURE	OFFICE SYMBOL/DATE

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR TWO ROCK RANCH STATION SONOMA AND MARIN COUNTIES, CALIFORNIA PROJECT NUMBER J09CA098303

APPENDIX J

SITE INSPECTION REPORT

Site Inspection Report
Two Rock Ranch Station
Sonoma/Marin Counties, California
Project Number J09CA098303

On 26 June 2003 at 0930 hours, Joe W. Vann III and Christopher Churney of the Rock Island District arrived at U.S. Coast Guard Training Center, Petaluma (TRACEN Petaluma), formerly Two Rock Ranch Station. After obtaining a vehicle pass, we met with Mr. Patrick Nelligan, environmental protection specialist for the installation. By previous arrangement, Mr. Nelligan had been designated by the commanding officer as the point of contact for FUDS related issues.

Mr. Nelligan took the team on a tour beginning with the former Small Arms Range in the Salamander Canyon Nature Area (photographs K-2, K-3, K-4, and K-5). Mr. Nelligan stated that he remembered firing a M-1 carbine on the range when he was a Boy Scout shortly after the Korean War. The area identified as the backstop was extremely overgrown with mature trees and shrubbery. No evidence of expended projectiles was noted. According to Mr. Nelligan, the soil has been tested for lead with none detected.

The next area visited was a grove of eucalyptus trees identified as the former 'Vietnam Village" (photographs K-6 and K-7). No evidence of ordnance was noted. The area is adjacent to the installation boundary with farm buildings on the other side of the fence to the west. On the east is a driving range.

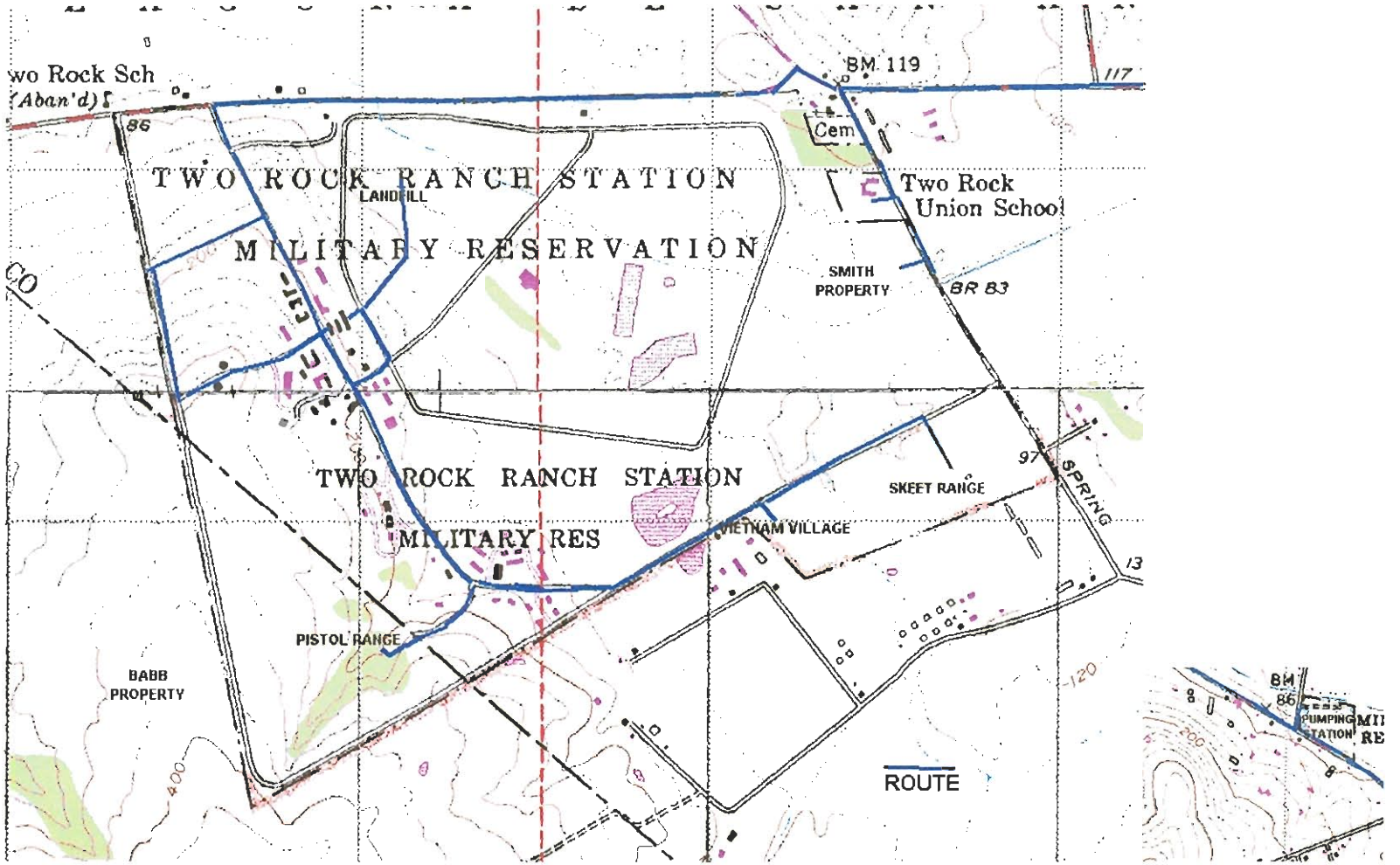
The skeet range is still in use and is therefore not eligible for projects (photographs K-10 and K-11).

The former ammunition storage buildings, 539 and 540, were located on the perimeter of the former sanitary landfill. The area is currently a hayfield. The Coast Guard tore down the buildings and the top two feet of soil and debris have been removed and the landfill properly capped. Groundwater sampling has shown no contamination. Mr. Nelligan has stated that the Sonoma County Solid Waste Authority has recommended to the California Environmental Protection Agency that no further actions be required for this site.

On 30 June 2003, the remainder of the area formerly known as Two Rock Ranch Station was visited. The Heather Babb property (photograph K-12) is currently used as pasture. This property never served any military purpose other than as a buffer between the installation border and any operational facilities. There is no reason for the suspicion of any ordnance or environmental hazard. The Two Rock Union School (photograph K-14) and the Robert C. Smith property (photograph K-14), fall into the same category.

The 8.68-acre parcel at King Road and Bodega Road formerly served as a freshwater well site for Two Rock Ranch Station. The entire parcel is owned by the Coast Guard. The wells are no longer in use and a portion of the property serves as a pumping station. The remainder of the property is leased for grazing (photographs K-15 and K-16).

After completing the site visit and a careful review of records, there appear to be no remaining eligible projects for this site.


wo Rock Sch
(Aban'd)
BM 119
117
Cem
TWO ROCK RANCH STATION
LANDFILL
MILITARY RESERVATION
Two Rock
Union School
SMITH
PROPERTY
BR 83
TWO ROCK RANCH STATION
MILITARY RES
SKEET RANGE
VIETNAM VILLAGE
SPRING
97
13
PISTOL RANGE
BABB
PROPERTY
120
400
ROUTE
BM
86
PUMPING
STATION

J-3

TABLE OF FEATURES WITH GPS COORDINATES (NAD 83)		
FEATURE	LATITUDE	LONGITUDE
Small Arms Range	38° 14′ 37″N	122° 47′ 38″W
Vietnam Village	38° 14′ 48″N	122° 46′ 56″W
Skeet Range	38° 14′ 53″N	122° 46′ 39″W
Magazines and Landfill	38° 15′ 15″N	122° 47′ 39″W
Heather Babb Property	38° 14 32″N	122° 48′ 05″
Two Rock Union School	38° 15 19″N	122° 46′ 42″W
Robert C. Smith Property	38° 14′ 53″N	122° 46′ 39″W
Pumping Station	38° 15′ 40″N	122° 42′ 49″W

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

APPENDIX K

PRESENT SITE PHOTOGRAPHS

APPENDIX K

PRESENT SITE PHOTOGRAPHS

TABLE OF CONTENTS

K-1 Main Gate, U.S. Coast Guard Training Center, Petaluma.

K-2 Former Small Arms Range in Salamander Canyon.

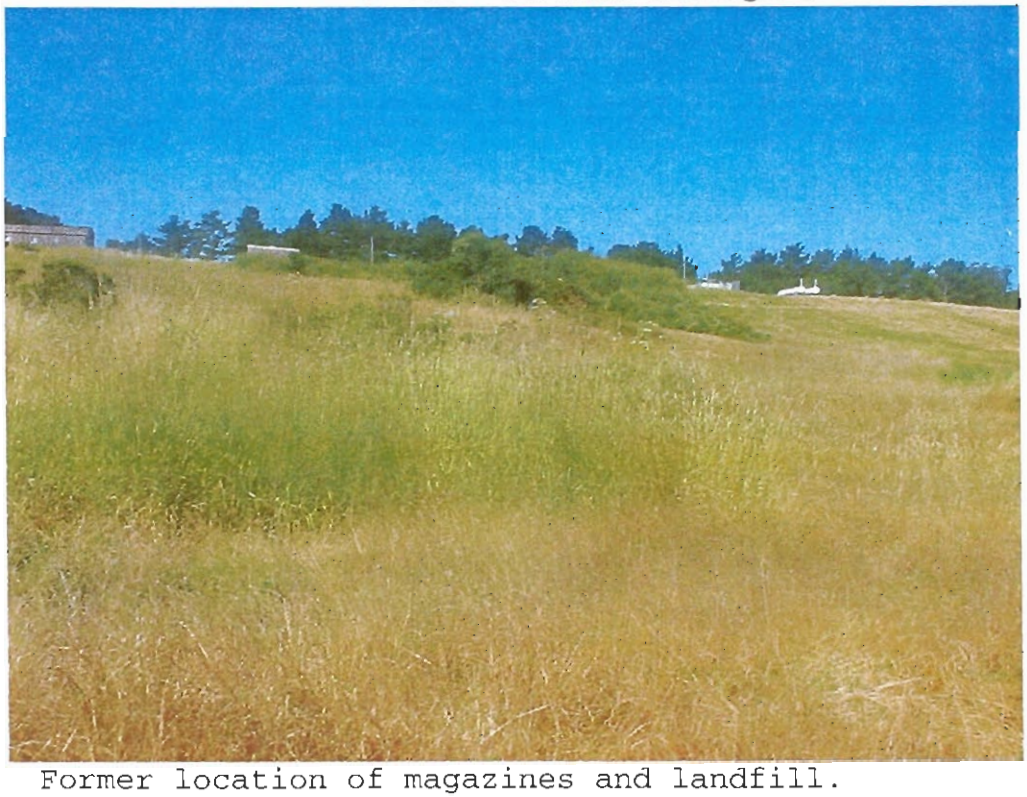
K-3 Former Small Arms Range showing dense shrubbery.

K-4 Stones marking former location of targets.

K-5 View of former Small Arms Range showing large backstop.

K-6 Former 'Vietnam Village' location.

K-7 Another view of former 'Vietnam Village'.

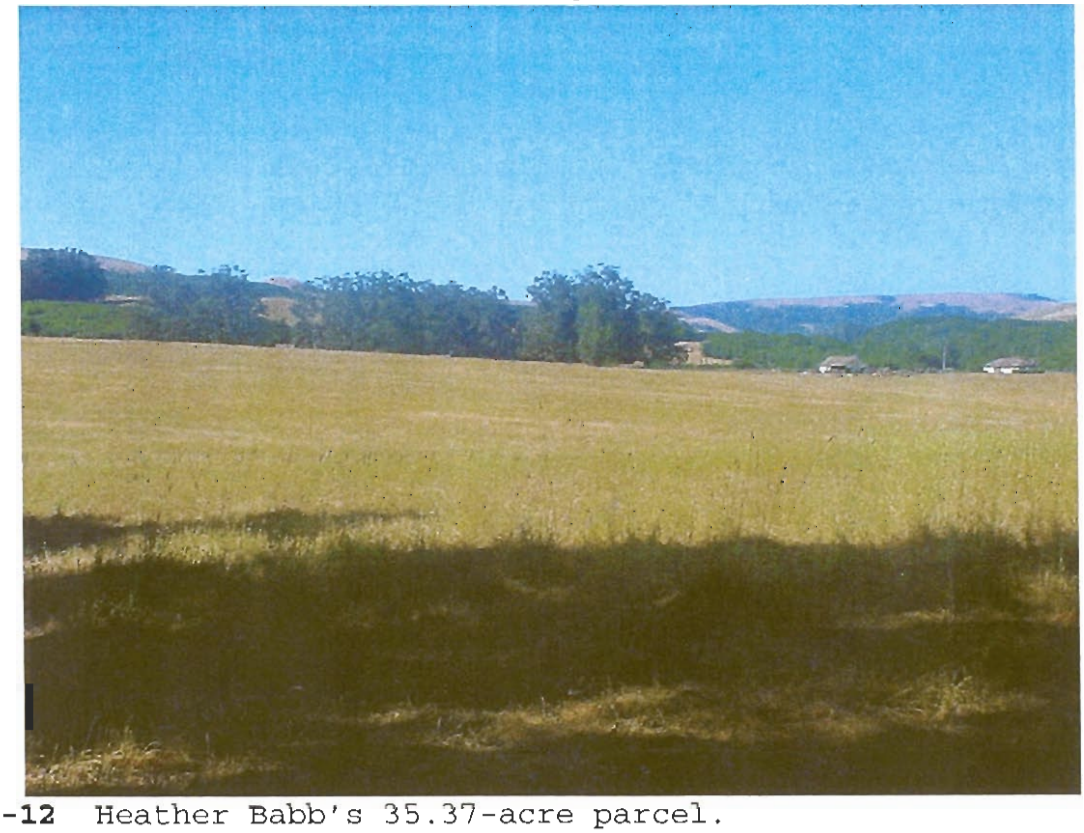


K-8 Former location of magazines and landfill.

K-9 Former magazine location.

K-10 View of Skeet Range.

K-11 Another view of Skeet Range.



K-12 Heather Babb's 35.37-acre parcel.

K-15 Pumping Station on 8.68-acre parcel.

K-16 View of remaining area of 8.68-acre parcel.

K-13 Robert C. Smith's property, 31.0 acres.

K-14 Two Rock Union School, 13.92 acres.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

APPENDIX L

RESPONSE TO COMMENTS

U. S. ARMY ENGINEERING AND SUPPORT CENTER, HUNTSVILLE — CORPS OF ENGINEERS

J09CA098300

DESIGN REVIEW COMMENTS — PROJECT DERP FUDS Two Rock Ranch Station

X ASR/INPR TEAM — REVIEW ASR TAG OE

DATE 07 July 2004

NAME Ron Thornhill (918)420-8395

ITEM	DRAWING NO. OR REFERENCE	COMMENT	ACTION
1.	General	Draft ASR for Two Rock Ranch Station, Sonoma/Marin Counties, California, was reviewed for accuracy and completeness. Based on this review the following comments are provided:	
2.	General	I concur with the RAC score of 5, supported by the ASR as written for Areas A through E.	
3.	ASR RAC Worksheet	The RAC worksheet for the ASR October 2003 has been updated to the 10 MAY 04 revision from ER 200-3-1.	
4.	Appendix E FDE	The FDE is unsigned and undated.	
5.	8a(4)	The author states no "weaponized CWM was ever present at the site." Recommend removing the term "weaponized."	

U. S. ARMY ENGINEER DIVISION HUNTSVILLE — CORPS OF ENGINEERS

DESIGN REVIEW COMMENTS

PROJECT: Two Rock Ranch Station – J09CA098303

☐ SITE DEV & GEO	☐ MECHANICAL	☐ OE SAFETY	☐ SYSTEMS ENG	REVIEW: ASR Review
☐ ENVIR PROT& UTIL	☐ MFG TECHNOLOGY	☐ ADV TECH	☐ VALUE ENG	DATE: 4 March 2004
☐ ARCHITECTURAL	☐ ELECTRICAL	☐ ESTIMATING	■ OTHER – USA Environmental, Inc.	NAME: Doug Ralston 813-884-5722 x104
☐ STRUCTURAL	☐ INST & CONTROLS	☐ SPECIFICATIONS		

ITEM	DRAWING NO. OR REFERENCE	COMMENT	ACTION
1	General	Draft ASR for Two Rock Ranch Station, Sonoma and Marin Counties, California, was reviewed for accuracy and completeness. Based on this review the following comments are provided:	
2	General	I concur with the RAC score of 5, supported by the ASR as written.	
3	Appendix E FDE	The FDE is unsigned and undated.	

ACTION CODES
A - ACCEPTED/CONCUR
D - ACTION DEFERRED
W - WITHDRAWN
N - NON-CONCUR
VE - VE POTENTIAL/VEP ATTACHED

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

APPENDIX M

REPORT DISTRIBUTION

APPENDIX M

REPORT DISTRIBUTION LIST

EXTERNAL	No. Copies		
	I	II	III
COMMANDER, U.S. ARMY CORPS OF ENGINEERS ENGINEERING AND SUPPORT CENTER, HUNTSVILLE ATTN: CEHNC-ED-SY (MARDIS) P.O. BOX 1600 HUNTSVILLE, AL 35807-4301	2	-	-
COMMANDER, U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL ATTN: SMAAC-ESL 1C TREE ROAD, BUILDING 35 MCALESTER, OKLAHOMA 74501	2	-	-
COMMANDER, U.S. ARMY HEALTH CLINIC ATTN: MCXM-PMA (PLATT) ROCK ISLAND ARSENAL ROCK ISLAND, IL 61204	-	-	-
COMMANDER, U.S. ARMY CORPS OF ENGINEERS SACRAMENTO DISTRICT ATTN: CESPK-PM-H (VINCENT) 1325 J ST SACRAMENTO, CA 95814-2922	2	-	-
COMMANDER, U.S. ARMY CORPS OF ENGINEERS ROCK ISLAND DISTRICT P.O. BOX 2004 ROCK ISLAND, IL 61204			
ATTN: CEMVR-			
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ED-DO	3	-	-

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III - ROUTED FINAL REPORT

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES, CALIFORNIA
PROJECT NUMBER J09CA098303

REPORT PLATES

N 4236000

E 518498

PEPPER ROAD

KING ROAD

BODEGA AVE

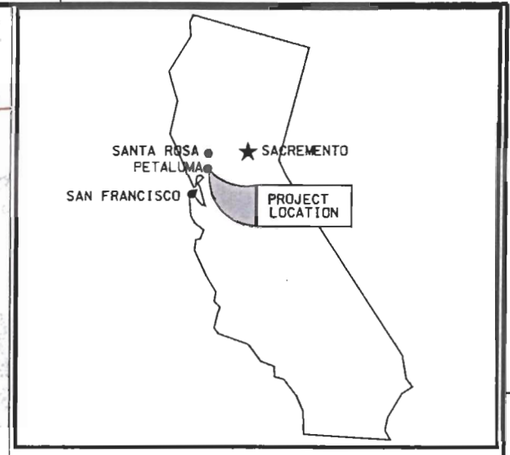
PETALUMA ROAD

MIDDLE TWO ROCK ROAD

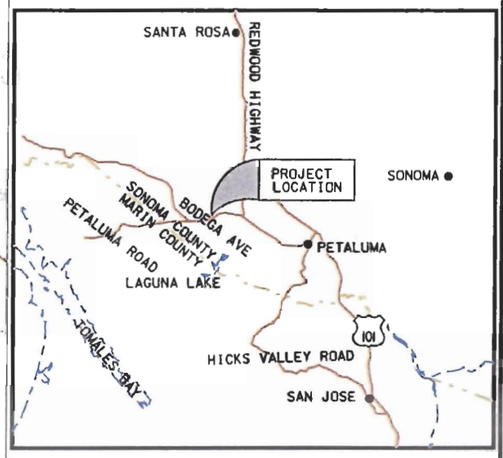
SPRING HILL ROAD

PURVINE ROAD

SONOMA COUNTY
MARIN COUNTY



CALIFORNIA STATE MAP



VACINITY MAP

LEGEND

- PROPERTY BOUNDARY
- MAIN ROAD
- COUNTY BOUNDARY
- UTM COORDINATE

1250 0 1250 2500 FEET

Revisions			
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by: J.W. VANN
Drawn by: C.P. BROWN
Checked by: G.C. OFSLAGER
Reviewed by: R.E. HOFFMAN
Approved by: COL DUANE P GAPINSKI, MVR

US Army Corps of Engineers Rock Island District

TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES
CALIFORNIA

SITE MAP

Scales:
Dates:
Drawing Codes:
Sheet reference numbers:

Project Numbers: J09CA098303

PLATE 1

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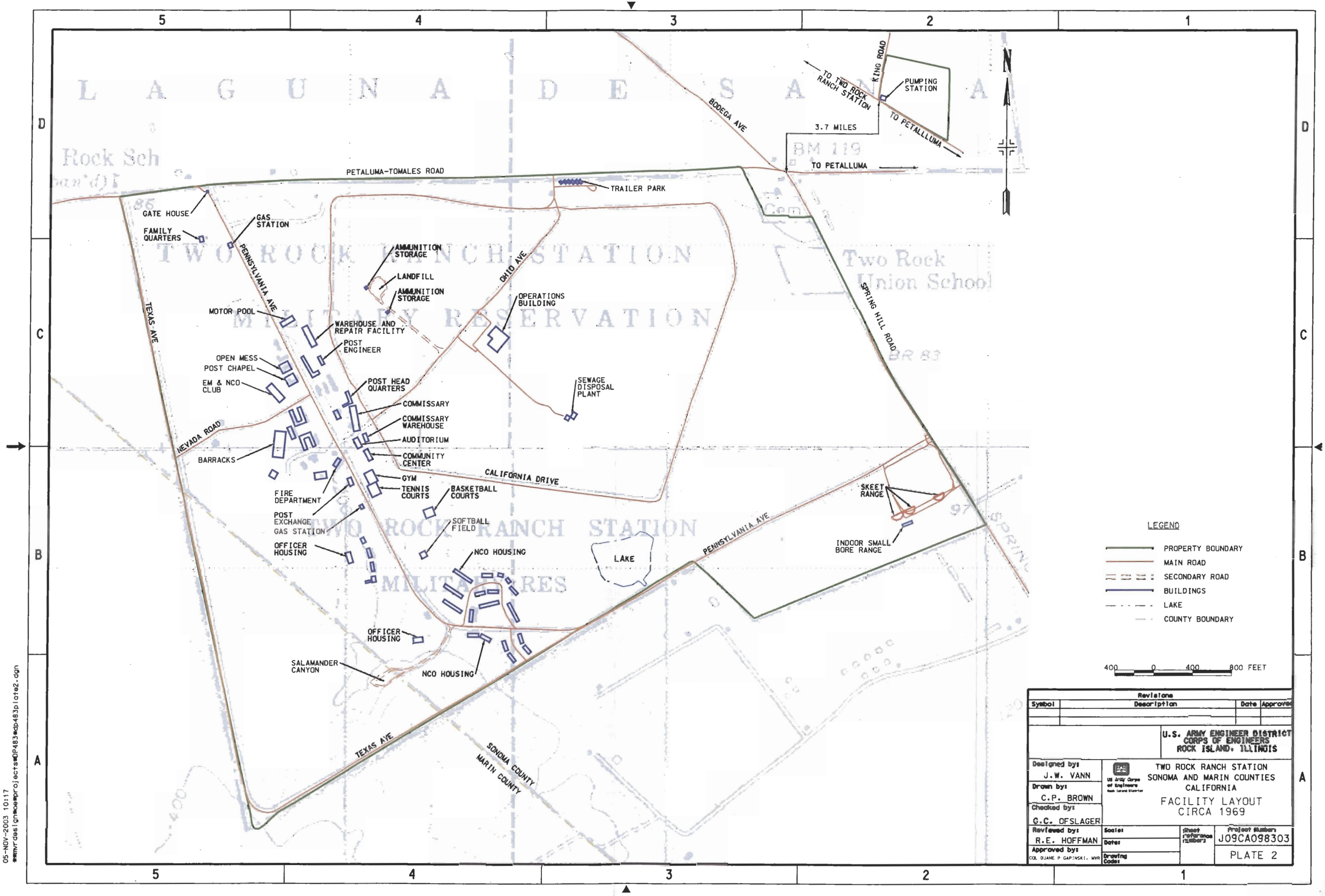

Revisions			
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by: J.W. VANN	TWO ROCK RANCH STATION SONOMA AND MARIN COUNTIES CALIFORNIA
Drawn by: C.P. BROWN	FACILITY LAYOUT CIRCA 1969
Checked by: C.C. OFSLAGER	
Reviewed by: R.E. HOFFMAN	Scale:
Approved by: COL DUANE P GAPINSKI, MVR	Date:
	Drawing Codes:
	Sheet reference number:
	Project Number: J09CA098303
	PLATE 2

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OE PRESENCE			
AREA	DESCRIPTION	OE PRESENCE	AREAGE
A	PISTOL RANGE	NONE	0 .60
B	SMALL ARMS MAGAZINE AND LANDFILL	NONE	2.2
C	VIETNAM VILLAGE	NONE	2.5
D	DOUBLE SKEET RANGE	NONE	12.0
E	ALL REMAINING LANDS	NONE	859.11
		TOTAL ACREAGE	876.41

PETALUMA-TOMALES ROAD
BODEGA AVE
TO TWO ROCK RANCH STATION
KING ROAD
PUMPING STATION
TO PETALLLUMA
3.7 MILES
TO PETALLUMA
AMMUNITION STORAGE
AREA B SMALL ARMS MAGAZINE AND LANDFILL
AMMUNITION STORAGE
PENNSYLVANIA AVE
OHIO AVE
TEXAS AVE
SPRING HILL ROAD
AREA E ALL REMAINING LANDS
NEVADA ROAD
CALIFORNIA DRIVE
LAKE
PENNSYLVANIA AVE
AREA D DOUBLE SKEET RANGE
AREA C VIETNAM VILLAGE
AREA A 1000 INCH SMALL ARMS RANGE
TEXAS AVE
SONOMA COUNTY
MARIN COUNTY

LEGEND

- PROPERTY BOUNDARY
- MAIN ROAD
- SECONDARY ROAD
- LAKE
- PISTOL RANGE
- SMALL ARMS MAGAZINES AND LANDFILL
- VIETNAM VILLAGE
- DOUBLE SKEET RANGE
- DIRECTION OF FIRE

400 0 400 800 FEET

Revisions			
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by: J.W. VANN
Drawn by: C.P. BROWN
Checked by: G.C. OFSLAGER
Reviewed by: R.E. HOFFMAN
Approved by: COL DUANE P GAPINSKI, MVR

US Army Corps of Engineers Rock Island District

TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES
CALIFORNIA

OE PROJECT AREAS

Scales:
Dates:
Drawing Codes:
Sheet reference numbers:
Project Numbers: J09CA098303

PLATE 3

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CURRENT OWNERSHIP		
TRACT	OWNERSHIP	ACREAGE
	DEPARTMENT OF HOMELAND DEFENSE	797.12
	ROBERT C. SMITH	30.00
	TWO ROCK UNION SCHOOL DISTRICT	13.92
	HEATHER BABB	35.37
	TOTAL ACREAGE	876.41

PEPPER ROAD
KING ROAD
BODEGA AVE
PETALUMA ROAD
MIDDLE TWO ROCK ROAD
SPRING HILL ROAD
PURVINE ROAD
SONOMA COUNTY
MARIN COUNTY

LEGEND

PROPERTY BOUNDARY
MAIN ROAD
COUNTY BOUNDARY

1250 0 1250 2500 FEET

Revisions			
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by: J.W. VANN
Drawn by: C.P. BROWN
Checked by: G.C. OFSLAGER
Reviewed by: R.E. HOFFMAN
Approved by: COL DUANE P GAPINSKI, MVR

US Army Corps of Engineers Rock Island District

TWO ROCK RANCH STATION
SONOMA AND MARIN COUNTIES
CALIFORNIA

OWNERSHIP MAP

Scale:
Date:
Drawing Codes:
Sheet reference numbers:
Project Number: J09CA098303

PLATE 4

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