



**US Army Corps
of Engineers
HUNTSVILLE DIVISION**

DRAFT

**Defense Environmental Restoration Program
for
Formerly Used Defense Sites**

**Ordnance and Explosive Waste
Chemical Warfare Materials**

ARCHIVES SEARCH REPORT

CONCLUSIONS AND RECOMMENDATIONS

BENICIA ARSENAL

Benicia, Solano County, California

Site No. J09CA075600

MARCH 1994

**Prepared by
US ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT**

ORDNANCE AND EXPLOSIVE WASTE
CHEMICAL WARFARE MATERIALS
ARCHIVES SEARCH REPORT
FOR
BENICIA ARSENAL
BENICIA, CALIFORNIA

DERP-FUDS SITE NO. J09CA075600

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1.0 Introduction

1.1 Authority

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 42 USC 9601 et seq. Ordnance and Explosive Wastes (OEW) are included in the CERCLA definition of pollutants and contaminants that require a remedial response.

In 1983, the Environmental Restoration Defense Account (ERDA) was established by Public Law 98-212. This Congressionally-directed fund was to be used for environmental restoration at Department of Defense (DOD) active installations and formerly used properties. The DOD designated the Army as the sole manager for environmental restoration at closed installations and formerly used properties. The Secretary of the Army assigned this mission to the Corps of Engineers (USACE) in 1984.

The 1986 Superfund Amendments and Reauthorization Act (SARA) amended certain aspects of CERCLA, some of which directly related to OEW contamination. Chapter 160 of the SARA established the Defense Environmental Restoration Program (DERP). One of the goals specified for the DERP is "correction of environmental damage (such as detection and disposal of unexploded ordnance) which creates an imminent and substantial endangerment to the public health or welfare or to the environment."

The DERP requires that a CERCLA response action be undertaken whenever such "imminent and substantial endangerment" is found at:

- A. A facility or site that is owned by, leased to, or otherwise possessed by the United States and under the jurisdiction of the Secretary of Defense.
- B. A facility or site that was under the jurisdiction of the Secretary of Defense and owned by, leased to, or otherwise possessed by the United States at the time of actions leading to contamination.
- C. A vessel owned or operated by the Department of Defense.

The National Contingency Plan (NCP) was established by the Clean Water Act of 1972. The NCP has been revised and broadened several times since then. Its purpose is to provide the organizational structure and procedures for remedial actions to be taken in response to the presence of hazardous substances, pollutants, and contaminants at a site. Section 105 of the 1980 CERCLA states that the NCP shall apply to all response actions taken as a result of CERCLA requirements.

The March 1990 National Oil and Hazardous Substances Pollution Contingency Plan given in 40 CFR part 300 is the latest version of the NCP. Paragraph 300.120 states that "DOD will be the removal response authority with respect to incidents involving DOD military weapons and munitions under the jurisdiction, custody, and control of DOD."

On 5 April 1990, U.S. Army Engineer Division, Huntsville (USAEDH) was designated as the USACE Mandatory Center of Expertise (MCX) and Design Center for Ordnance and Explosive Waste (OEW). As the MCX and Design Center for OEW, USAEDH is responsible for the design and successful implementation of all Department of the Army OEW remediations required by CERCLA. USAEDH will also design and implement OEW remediation programs for other branches of the Department of Defense when requested. In cooperation with the Huntsville Division, the U.S. Army Corps of Engineers St. Louis District has been assigned the task of preparing Archives Search Reports for those Formerly Used Defense Sites (FUDS) suspected of chemical warfare materials (CWM) contamination.

1.2 Subject

The former Benicia Arsenal was located in Benicia, Solano County, California approximately 30 miles northeast of San Francisco (see Map 1). From 1849 to 1958, the United States acquired 2,728.04 acres for the Benicia Arsenal. From 1849 to 1960, the U.S. Army used the site as a principal depot for ordnance storage and issuance and the manufacture and testing of small arms, mobile and seacoast artillery targets. During DOD ownership of the property, more than 350 structures were built. On January 11, 1962, the Benicia Arsenal was declared excess by DOD and was reported to the General Services Administration. The arsenal remained vacant from 1965 to 1975. In 1975, the City of Benicia leased the arsenal property to Benicia Industries, Inc., a private land development firm. Benicia Industries currently maintains 22 DOD built structures. Exxon Oil Co. operates a refinery on the site and maintains 29 DOD built igloos. All of the other DOD built structures were either destroyed by several fires in 1922 and 1983, or were torn down. The site is currently used for residential housing, light to heavy industry, warehousing, commercial, and as a port. A significant portion of the site remains undeveloped.

1.3 Purpose

This Archives Search Report compiles information obtained through historical research at various archives and records-holding facilities, interviews with persons associated with the site, and a site inspection. All efforts were directed at determining the possible use or disposal of CWM or OEW on the site.

1.4 Scope

The historical data for this site presents evidence of significant shipment of CWM. The historical data as well as aerial photographs indicate storage facilities for OEW and possibly CWM. Interviews with local individuals confirmed the presence of weapons test areas. The OEW storage areas (open storage and igloos) and the weapons test areas are shown on Map 2. This investigation centered on the potential for OEW contamination in the ordnance storage areas and weapons test areas and CWM contamination in the ordnance storage areas.

This report presents site history, description and characterization of the immediate surrounding area, real estate ownership information, findings of the site inspection, and evaluation of potential OEW and CWM contamination.

2.0 Conclusions

2.1 Site Analysis

Our records searches, aerial photo review, interviews, and site inspections confirm the presence of ordnance storage bunkers, artillery test areas, and the open air ordnance storage areas. There was no evidence of OEW or CWM contamination at any of the areas inspected. Neither Benicia Industries Inc. or Exxon Oil Co. reported any OEW or CWM incidents.

Interviews with the Benicia Fire Department revealed anecdotal evidence of a few incidents involving OEW. Our interview with the Benicia Police Department revealed some anecdotal evidence of incidents involving OEW and three recorded incidents. Their record keeping system has been in place for about six years. One of the recorded incidents involved aluminum shrapnel. One involved a hand grenade dug up by landscapers. The last incident involved a 105 mm howitzer round dug up at the site of an environmental cleanup of lead contamination. The round was empty. The cleanup involved considerable excavation and the round was found in the middle of the lot. Copies of the incident reports are contained in Appendix A.

2.2 Interpretation of Aerial Photography

Photo analysis and land use interpretation were performed at the site with the use of aerial photography from 1962, 1973 and 1991. The Benicia, California and Vine Hill, California USGS quadrangle maps were used as a reference for the photography. The approximate negative scale is as follows:

<u>Photography Date</u>	<u>Scale</u>	<u>Source</u>	<u>Identifier(s) Frame(s)</u>
02 Jul 1962	1" = 2,000'	Geonex	1/56-59
22 Jul 1962	1" = 2,000'	Geonex	8/131-133
10 Jul 1973	1" = 2,000'	Geonex	3594/181-185 3594/188-191 3594/238-239
17 Feb 1991	1" = 2,000'	Geonex	6/1-3

The site covers a portion of the eastern limits of the town of Benicia, California. It extends northeast from the city limits. The July 1962 photographs show an industrial complex, bordered by a small residential area, in the southern portion of the site. Several lagoons appear and a few buildings appear on the extreme eastern side, bordering the Carquinez Strait. On the eastern side of the site are a railroad yard and an apparent warehouse complex. A tip on the northern end of the site contains numerous short railroad spurs leading from the trunk line. These lead to flat, unused

areas which may have been outside storage at some previous time. The remainder of the site, perhaps roughly half, shows evidence of a very irregular access road system. Leading from these roads are driveways which terminate at apparent doorways into the natural terrain. These could be underground bunkers, probably used for storage. A few of these bunkers showed evidence of blast walls, most do not. The majority of these bunkers blended in with the natural terrain but a few showed evidence of semicylindrical roofing. Erosion may have washed away the soil covering these structures. The July 1973 photos show a number of major changes on the site. An Interstate-type highway has been put in place which runs northeastward through the site. A large building complex with adjacent tank farms, giving the appearance of a refinery, has been constructed through the middle of the site and extends toward the west, replacing about half of the underground storage bunker area that appeared on the 1962 photographs. The February 1991 photographs show a limited expansion of the refinery. Also, there are numerous new buildings in the northern tip and in the 1962 warehouse complex serviced by the railroad trunk line in the northeast part of the site. The appearance of the buildings in proximity of the railroad give the impression of storage warehouses. The underground bunker network that covered a significant area on the 1962 photos now covers a relatively small section.

The period between July 1962 and February 1991 shows a vast change in the cultural picture of the site. A significant portion of the site was covered by a complex of underground storage bunkers in 1962. Much of this area has been converted to an expanding refinery. A warehouse storage area that appeared on the 1962 photographs is expanded with many new buildings.

2.3 Summary of Conclusions

Our records review and site inspections show that large amounts of OEW and CWM were received, stored, and shipped at the Benicia Arsenal. The exact type of OEW and CWM stored at each location is unknown. Our inspection of potentially contaminated areas revealed no evidence of OEW or CWM. Two of the documented incidents of OEW indicate the likelihood that excavation of areas not previously disturbed or developed could result in more ordnance items being found.

Extensive development of the former Benicia Arsenal property has occurred since the property was exsessed. Approximately 30% of the site remains undeveloped but it appears that further development is likely. Considering the extent of prior development, the likelihood of continued development, and buried ordnance items found to date, a RAC score of 2 has been assigned to this site.

2.4 OEW/CWM Site Analysis

2.4.1 Prior to World War II

Benicia Arsenal was created on August 25, 1851 and during November of that year it was made the principal depot for ordnance and ordnance stores for the Division of the Pacific (Corps of Engineers, Sacramento District, 1968). Activity at Benicia Arsenal ended in 1964 (Department of Defense, c. 1970).

In 1898, during the Spanish-American War, those troops bound for the Philippines from Benicia Barracks drew their supplies and equipment from the ordnance stores of the arsenal. Benicia Arsenal furnished ordnance supplies to all troops west of the Rockies during World War I (Benicia Police Department, 1954). By 1920 it was a manufacturing arsenal and proving ground (Department of Defense, c.1970).

Between World War I and World War II, Benicia Arsenal was used to reship ordnance supplies to Hawaii, the Philippines, Cuba, and Alaska. In 1919 only eight buildings were available for the storage of ammunition. Two unspecified magazines were used for the storage of high explosives (Office of Chief of Ordnance#1, date unknown). In 1925, authority was obtained to alter an old cistern to be used as a magazine. This was completed in 1926 and was used for the storage of chemical warfare ammunition (Office of Chief of Ordnance#1, date unknown). The exact location of this cistern is unknown. Map 3 shows the location of at least 14 cisterns. Cistern #1 is closest to other ordnance storage facilities. Seven standard magazines and four underground magazines were constructed in 1928 and 1929 (Office of Chief of Ordnance#1, date unknown). Training was also conducted at the arsenal. An Ordnance Reserve Officers Training Camp was held at Benicia Arsenal the last two weeks of June, 1925 (Army Ordnance, 1925).

An inspection report from 1932 notes that Benicia had bombs stored in igloo type magazines and black powder charges stored (Office of Chief of Ordnance#2, 1932). A 1934 inspection of Benicia Arsenal listed among other items; machine guns, rifles, pistols, shotguns, 3" Mk I trench Mortars (55 on hand), and 8" MK VIII 1/2 Howitzers (Office of Commanding Officer Benicia Arsenal, 1934). A 1937 inspection noted the principal mission of Benicia Arsenal was the supply and repair of ordnance material and equipment for the Ninth Corps Area and a limited supply of ammunition and minor ordnance material to Hawaii and the Philippines (Headquarters Ninth Corps Area, 1937).

2.4.2 World War II

2.4.2.1 Shipments to Benicia

Shipping documents from the World War II period indicate that Benicia Arsenal was

used extensively as a transshipment point for chemical warfare material and conventional ordnance. Several shipping orders from 1942 provide evidence. One 1942 shipping order from Utah General Depot to Benicia Arsenal is for 36,000 pounds of mustard gas (HS) to be shipped in one ton containers (Office of Chief Chemical Warfare Service, 1942). Another is for 17 one ton containers of mustard gas from Edgewood Arsenal shipped to Benicia for shipment to the Pacific Area (OCCWS2, 1942). A third 1942 shipping document is for 48 500-pound clusters of 4-pound incendiary bombs (Gillet, 1942). Another from 1942 notes 80,000 4-pound incendiary bombs shipped from Utah General Depot (Chemical Section Utah General Depot, 1942). A 1942 shipment from the Eastern Chemical Warfare Depot to Benicia Arsenal lists 8,000 4.2" rounds of WP Smoke Shell, 5,000 4.2" fuzes including burster tubes, and 5,000 4.2" propelling charges (Willett, 1942).

2.4.2.2 Mission

The mission of Benicia Arsenal during World War II was stated in several documents. A 1943 document states its mission as transshipment of all classes of ammunition, as well as retail issues of assembled tanks, artillery, small arms, and the parts and supplies for them (Office of Chief of Ordnance #3, date unknown). Benicia Arsenal was also described as a filler depot for automatic weapons, small arms, and artillery for issue and shipment overseas through the San Francisco and Los Angeles Ports of Embarkation; as a storage depot for these ports; and as a transshipment depot for ammunition (Office of Chief of Ordnance #4, date unknown). Benicia Arsenal served the IX Corps Area with Ogden, Utah and served as an advance maintenance shop for it. Benicia was an intermediate depot that served as an area depot. Increased ammunition stocks during WWII included adding storage at Benicia, noted below. As a transshipment point, Benicia served the Ninth Service Command and supplied the Pacific bases (Office of Chief of Military History, 1960).

2.4.2.3 Storage

Major expansion occurred just prior to and during World War II, adding warehouses, igloos, magazines, docks, and more (Benicia Police Department, 1954). Hundreds of tons of ammunition, high explosives, bombs, incendiaries and toxic gases were being constantly handled by the Ports of Embarkation during World War II. Facilities at the warehouse of the Chemical Branch, San Francisco Port of Embarkation were limited to the storage of non-toxic and non-explosive CWS items. Safety regulations precluded even the overnight storage of dangerous materiel at Oakland, with the result that supplies of this kind had to be received at Benicia Arsenal. Bombs, grenades, 4.2" shells and toxic containers arrived at Benicia by rail from CWS Depots throughout the country. They were either loaded directly aboard ship at Benicia or transported by rail or barge to other facilities of the San Francisco Port of Embarkation such as Oakland Army Base or Pier No.1, Richmond (Hemleben, 1947).

11 9

Incendiary bombs, 4.2-inch mortar shells, smoke and white phosphorus grenades soon proved to be so effective in the Pacific campaign that problems concerning them became those of procurement and transport rather than storage. So urgent was the overseas demand for supplies of this kind, that only small quantities could be kept on hand for any length of time, even at Benicia. Efforts were made to correlate arrival and shipment times so that supplies could be moved out on cargo vessels shortly after they had been received at the arsenal, and only when a higher priority rating was given an emergency consignment at SFPE was this materiel stored at Benicia. In such an event, the arsenal acted as a back-up point and the munitions or toxics were stored there temporarily. Chemical warfare storage space at Benicia consisted of two igloos of standard size, and such open area as might be required. This space was under the supervision of the CWS section at the installation (Hemleben, 1947). When CWS materiel was loaded onto ships at Benicia, a SFPE Chemical Branch representative inspected the containers or shells for leakage before they were loaded on ship and during the actual loading (Hemleben, 1947). Photographs from the History of CWS Activities at Ports of Embarkation show toxic munitions being loaded onto ships at Benicia, and bombs being stored in igloos (Hemleben, 1947, 138-140).

In the 4th quarter of 1945, all CWS stock was shipped from the San Francisco Port of Embarkation, of which Benicia was a part, to interior depots. Materiel returned from overseas was also sent through the San Francisco Port of Embarkation (Hemleben, 1947)

2.4.3 Post World War II

Equipment and supplies were also routed through Benicia for the Korean conflict (Benicia Police Department, 1954). Specific munitions supplied are not known. An inspection report for Benicia Arsenal in 1957 showed 7,499 tons of small arms ammunition and 636 tons of guided missiles on hand (Ordnance Corps, 1957). Activity at Benicia Arsenal ended in 1964 (Department of Defense, c.1970). After Benicia Arsenal closed, nearly all of the former arsenal became an industrial park, with a few buildings of historic interest kept as museums and points of interest. Exxon is the major landowner in the industrial park today.

2.4.4 Base Cleanup

No records were found relating to the cleanup of Benicia Arsenal at the time of closing or immediately thereafter.

2.5 Real Estate

From 1849 to 1958, the United States acquired 1,790.48 fee acres, 351.12 public domain acres, 6.40 license acres, 4.16 easement acres, and 575.88 lease acres for

the Benicia Arsenal (2,728.04 total acres). On January 11, 1962, Benicia Arsenal was declared excess by DOD and was reported to the General Services Administration. On February 26, 1965, 1.33 acres of public domain property was reassigned to Benicia Arsenal Cemetery. The total property acres acquired were disposed of as follows (It appears that there were no restoration nor recapture provisions): from 1945 to 1960, lease terminated for 575.45 acres; on January 11, 1962, 360.78 public domain/license/easement/lease acres reported excess; and GSA quitclaim deed to the City of Benicia (Surplus property Authority) 5.03 and 1,785.45 fee acres on March 12, 1964 and February 20, 1965, respectively.

2.6 Site Inspection

2.6.1 General

The site inspection was performed during the period 30 November 1993 through 2 December 1993 by the following St. Louis District personnel:

Ted Moore	Project Manager
Pat O'Donnell	Historian and Site Safety Officer
Ken Brimm	Historian

2.6.2 Detailed Site Inspection

Prior to our arrival in Benicia, we were aware of ordnance storage bunkers on Benicia Industries property and on Exxon's property. Our records review indicated the possibility that two igloos were used for chemical weapons storage and that a cistern may have been used for chemical weapons storage.

We contacted Mr. Dan Schiada of the Benicia Public Works Department prior to our arrival in Benicia. He suggested we visit his office to review maps and records and decide the areas to inspect. He would help us get permission to inspect the properties after our arrival in Benicia.

We met with Mr. Schiada at 1:00 p.m. on 30 November to review maps and drawings. Based on this records review, we selected specific areas to inspect. We performed a driving tour of the site to verify the areas to be inspected and then contacted owners to obtain permission to enter their properties. The specific areas identified for inspection were; Area 1) ordnance storage bunkers on Benicia Industries property; Area 2) ordnance storage bunkers on Exxon Oil Co. property; and Area 3) open air ordnance storage on property owned by Mr. Stephen David. Inspection of all of the storage bunkers was arranged for 1 December. We made several attempts to find Mr. David but were not successful.

Prior to departing for the subject sites on 1 December, Pat O'Donnell gave the safety briefing.

Our first stop was the storage bunkers on Benicia Industries property. Mr. Jim Campbell of Benicia Industries met us there to open the gate. While discussing the site with Mr. Campbell, he advised us of an area where artillery pieces were test fired. He agreed to show us the area later in the day. We inspected three storage bunkers on Benicia Industries property. We were able to open doors on two of the bunkers and found both of them empty. The third bunker contained property owned by a private individual and was locked. We inspected a band approximately 100 feet wide around each bunker and found scattered debris. The debris around one of the bunkers was a variety of scrap metal. We inspected this debris very closely and found nothing to indicate OEW or CWM. Photographs of these bunkers are in Appendix B.

Our next stop was the storage bunkers on Exxon's property. There are 23 bunkers on Exxon's property. Ms. Jeannette Fair, Security Officer for Exxon, made arrangements for our inspection. She also provided a map of the area and a list showing who is using each bunker for storage. She indicated that all but two of the bunkers are currently in use. One of these remaining two is available for use. The door is jammed on the other one. She indicated that all of the bunkers were empty when Exxon took possession of the property. She also indicated that many bunkers were destroyed as Exxon built its refinery. No incidents of OEW or CWM were reported when the bunkers were destroyed. We were accompanied by an Exxon security guard on our inspection. We did not ask for permission to inspect the inside of the bunkers based on the occupancy information provided by Ms. Fair. We did look into a couple bunkers that were open, and found no evidence of OEW or CWM. We inspected a band approximately 100 feet wide around each bunker. The only suspicious item found was a mound near bunker A-218. The mound is approximately three feet high and 15 feet in diameter. There is a depression near the mound which indicated to us that the mound was made intentionally. There was no evidence of OEW or CWM found around this mound or around any other bunkers. Typical photographs of these bunkers are shown in Appendix B.

We next met Mr. Campbell at his office. He accompanied us to the area where artillery pieces were test fired. He needed a few minutes to orient himself with the area but was able to show us the area where the guns were set up and the impact area. This test area is located on City of Benicia property. We inspected this area as well as the hillside beyond the impact area and found no evidence of OEW or CWM. The location of the artillery test area is shown as Area 4 on Map 2. Photographs of this area are in Appendix B.

During the evening of 1 December, we phoned Mr. Ron Rice. Mr. Rice is associated with the local museums and the fire department. We asked Mr. Rice about suspected

burial sites or contaminated areas on the arsenal property. We also described the areas we had inspected. Mr. Rice indicated his belief that the arsenal had generally been left in good condition, but asked why we didn't inspect the tunnels located near the artillery test area we had inspected earlier in the day. We informed him that we hadn't seen any tunnels. Although he could not give specific directions to the tunnels, he insisted they are there and should be easy to find since they are built of concrete and are 15 feet in diameter. He said Yuba Mfg. used the tunnels to test howitzer barrels. This seemed like a bit of a challenge so we decided to try to find the tunnels the next day.

On 2 December, we returned to the artillery test area inspected the previous day. The roads were muddy so we began walking up the valley. We found the tunnels about 1 mile from the artillery test area. There are two concrete tunnels side by side. Each tunnel is approximately 10' by 10' and extends about 100' into the hillside. The firing point is about 100' from the tunnel openings and is enclosed by concrete walls. We inspected the tunnels and the firing point and inspected the surrounding area. We found no evidence of OEW or CWM. The location of the tunnels is shown as Area 5 on Map 2. Photographs are contained in Appendix B.

As stated previously, we were not able to locate Mr. Stephen David. We drove the public road through his property on 30 November and found most of the area occupied by industrial buildings and parking areas. The unimproved area appears to be used by a construction company as an office and equipment storage area. Our route to the tunnel area overlooks Mr. David's property. We could see nothing of concern. Photographs of Mr. David's property are contained in Appendix B.

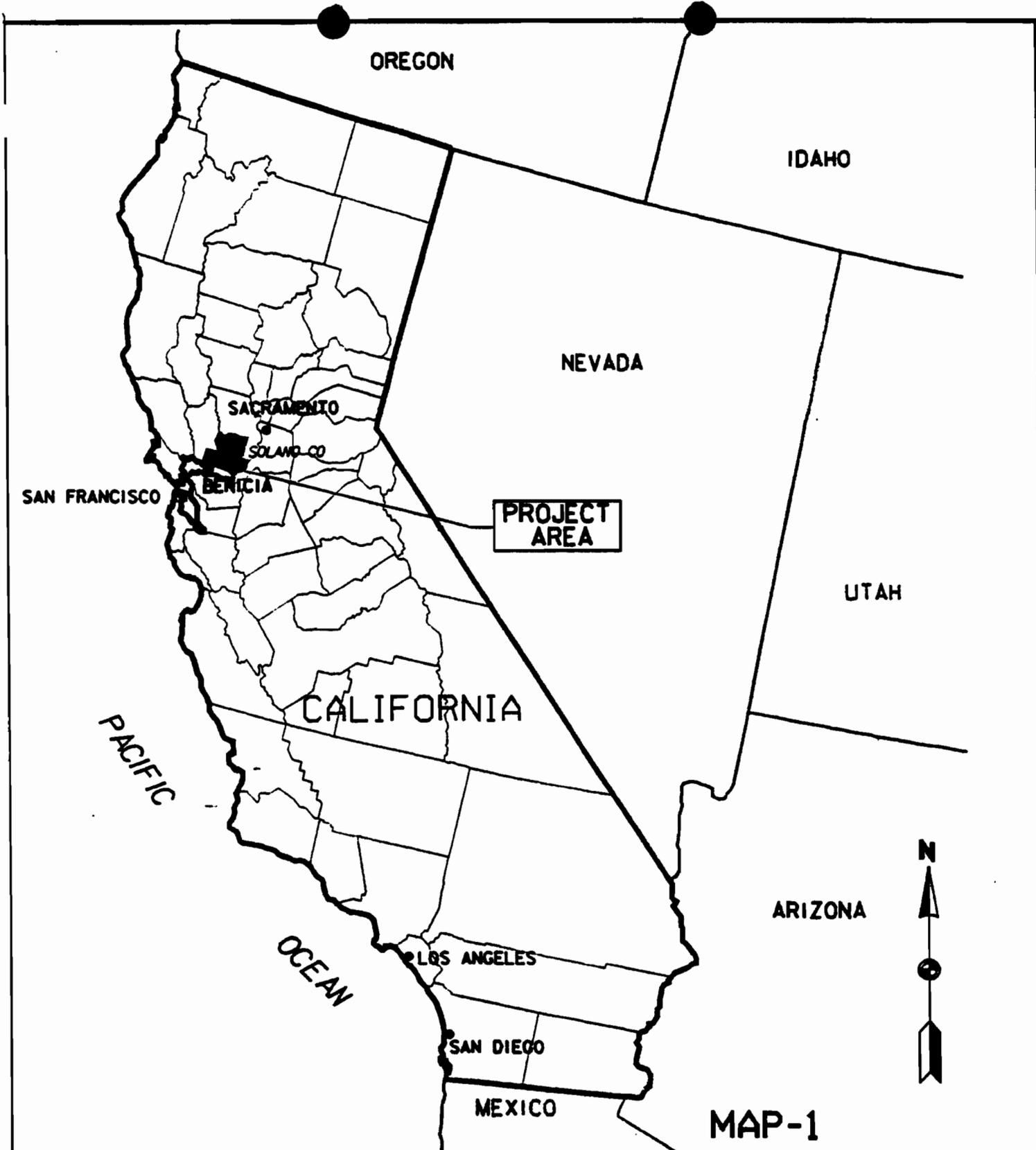
Apparently all of the bunkers were referred to as igloos. We found nothing that indicated specific bunkers were used for CWM storage. No evidence of a cistern used for CWM storage was found. We asked each individual who assisted us with the site inspection for information about CWM storage. No one was aware of igloos or a cistern used for CWM storage.

3.0 Recommendations

Two courses of action appear reasonable for this site. All undeveloped portions of the arsenal property could be surveyed for buried ordnance contamination. Since the most recent items found have been buried, an interim removal action is not recommended. An alternative action could be to advise all owners of undeveloped arsenal property of the potential for buried ordnance and to contact the Corps of Engineers prior to any excavation activities.

MAPS/DRAWINGS

(J)



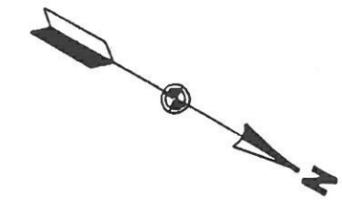
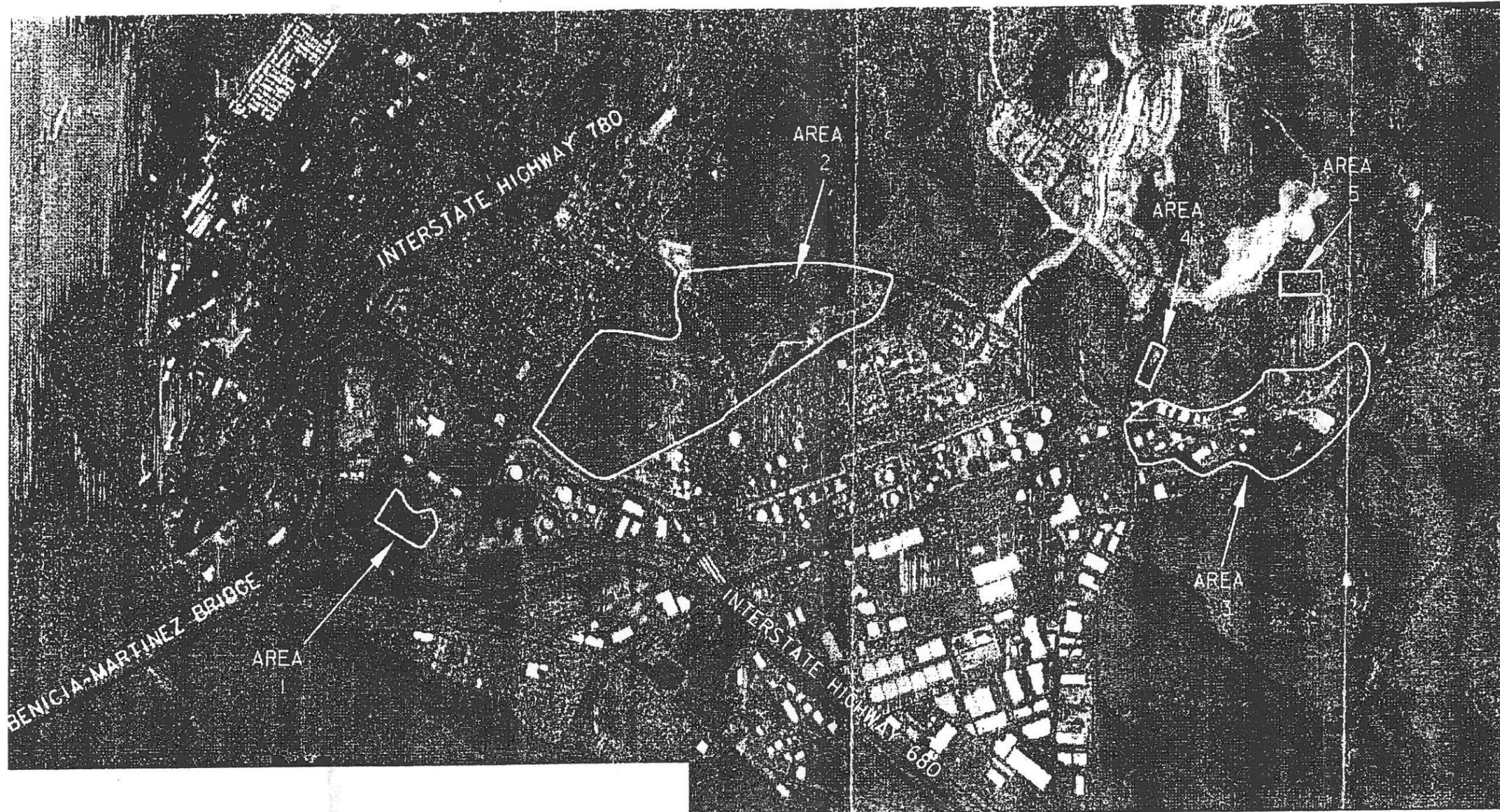
MAP-1

**BENICIA ARSENAL
SOLANO COUNTY
BENICIA, CALIFORNIA
DERP-FUDS * J09CA075600
VICINITY MAP**

NOT TO SCALE

PROJ. DATE: DEC 1993
07-FEB-1994 12:08

DATE OF MAP: 1993
MORE/SITE/EM/MAP/CA0756



----- BOUNDARY

MAP-2

BENICIA ARSENAL
 SOLANO COUNTY
 BENICIA, CALIFORNIA
 DERP-FUDS# J09CA075600
 SITE MAP

NOT TO SCALE
 SCALE 1:X

PROJ. DATE: DECEMBER 1993	DATE OF MAP: 1988
30-DEC-1993 10:14	moore/site6m/map/benac01.photo/ben91a/ben91b.ext

APPENDIX A
BENICIA POLICE DEPARTMENT INCIDENT REPORTS

3

1. AGENCY BENICIA P.D.				2. CASE NUMBER 93-03363			
3. COPY TO				BENICIA POLICE DEPARTMENT CONTROLLED DOCUMENT			
3. COPY TO S.A. PROB. D.O.J. OTHER				NOT TO BE DUPLICATED US ARMY CORP			
4. DATE & TIME OCCURRED (MO. OF, WED)				5. DATE & TIME REPORTED (MO. OF, WED)			
9/2/93 1130				9/3/93 0725			
6. NARRATIVE				7. RELEASED BY			
NAMES TO APPEAR:				Date			
1- BLEVENS, LOTHAR LOTHAR , 1021 SAN ANTONIO, ALAMEDA (*)							
(370) 522-3512 1/12/31, FERGUSON OPERATIONS MGR,							
HANDLING CONSTRUCTION SERVICES, INC. (415) 892-0821							
2- EGGL, SGT. DAN, 200 EAST L ST., BENICIA (*)							
745-3412							
3- OLIVERO, JOHN, CONSTRUCTION MATERIALS (*)							
TESTER, INC, SOIL TESTER, H.P. 625-4281,							
PCA # 448-2199							
<p>9/3/93, APPROX. 0800 HR, MYSELF AND SGT. EGGL MET WITH (*) BLEVENS AT THE JET CONSTRUCTION SITE ACROSS FROM RUSSEL WOODWORKS, 2980 RAYSHORE ROAD, RELATIVE TO A EXPLOSIVE DEVICE (LATER IDENTIFIED AS A .155 ARTILLERY ROUND).</p> <p>(*) BLEVENS STATED THAT WHEN EXCAVATING YESTERDAY 9/2/93 @ 1130 HR, THE ABOVE MENTIONED EXPLOSIVE WAS DETECTED NEAR THE MED-LOT, APPROX. 30' FROM RAYSHORE ROAD, THEN WAS HAND-CARRIED, SIGHTLY AFTER BY (*) OLIVERO, TO THE N/W SIDE OF THE CONSTRUCTION SITE, NEAR THE CONSTRUCTION PORTABLES.</p> <p>AT APPROX. 0900 HR, THREE DAYS (9/3/93) E.O.D. (EX-PLOSIVES ORDNANCE DISPOSAL AGENCY), FOUND THE .155 ARTILLERY ROUND TO BE EMPTY, THEN LEFT WITH SAME.</p>							
9. SIGNATURE OF REPORTING OFFICER				11. I.D. NUMBER		12. REVIEWED BY	
				#634			
						13. FOLLOW-UP REFERRED TO	
						14. FURTHER ACTION YES <input type="checkbox"/> NO <input type="checkbox"/>	

** POLICE CALL NO: 01-932460051 MISC/INFO/EXTRA PATROL **

Disposition.: REPORT TAKEN Date Recvd: 090393 WS-ID: C5 User: CHRIS

Incident No.: 01-93003363 Resp: 1 Units: 01 Lock: U Status: F/A

Caller Name: GOMES OFFICER Phone#: (000) 000-0000

Caller Addr: 00000 BENICIA POLICE Apt: City/ST:

Loc. of Call: 03001 BAYSHORE ROAD Apt: City...:

Common Name: Intersection:

Unit#	Received	Dispatch	At Scene	Available	Police Employees	Veh ID
203	085322	085328	085331	000000	0634	

001 REQUESTS A CASE & PULLED FOR INFO REPORT REGARDING CAD Narrative

002 CALL # 932450111. CALL IS REGARDING THE EXPLOSIVE DEVICE Narrative

003 FOUND IN THE CONSTRUCTION SITE AT 3001 BAYSHORE. Narrative

004 ** EOD ENROUTE AT 0745 HOURS ** EOD ON SCENE AT 0906 HRS ** Narrative

005 ** THE DEVICE WAS AN EMPTY 105 HOWITZER ** /CH Narrative

I
N
F
O
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M
A
T
I
O
N

Control Line:

Narrative #1:

Caller Name: L-

F-

M- Phone: 000 0000 / 000

Caller Addr: 00000

Apt: Ct/St:

Loc. of Call: 00000

Apt: City:

Common Name:

Call#: Resp: Units:

Intersection:

Assn.:

Type of Call:

Disp.:

CAD202 9/03/93 09:21:30

BENICIA POLICE DEPARTMENT
CONTROLLED DOCUMENT
 NOT TO BE DUPLICATED

Released to _____

Released by _____ Date _____

1. AGENCY BENICIA P.D.		<input checked="" type="checkbox"/> INFORMATION REPORT <input type="checkbox"/> INCIDENT <input type="checkbox"/> CONTINUATION <input type="checkbox"/> FOLLOW-UP		2. CASE NUMBER 93-00752	
----------------------------------	--	--	--	-----------------------------------	--

3. COPY TO	D.A.	PROB.	D.O.J.	OTHER	PAGE 1
------------	------	-------	--------	-------	------------------

4. DATE & TIME OCCURRED (MO., DY., YR.) 2-28-93 0957	5. DATE & TIME REPORTED 2-28-93 0957	6. DAY SUN	7. LOCATION BAYSHORE N. OF BRIDGE	8. REP. DEV. CT.
--	--	----------------------	---	------------------

9. NARRATIVE
 NAMES TO APPEAR: _____ Released by: _____

MIKE R. BOARDMAN 5-15-56 1005 EAST FIFTH ST. 745-9103 (RD)
SGT. REILLY E.O.D. PRESIDIO ARMY BASE (415) 561-2437 (*)
SGT. ANDERSON E.O.D. PRESIDIO ARMY BASE (415) 561-2437 (*)

FACTS: (RD) BOARDMAN PHONED THE POLICE DEPARTMENT AND REPORTED FINDING A SUSPICIOUS OBJECT, POSSIBLY A PIPE BOMB, IN THE PICNIC AREA ON THE SHORELINE ADJACENT TO BAYSHORE ROAD, APPROX. 300 YARDS NORTH OF THE BENICIA BRIDGE. I CONTACTED (RD) BOARDMAN AT THE SCENE AND OBSERVED THE OBJECT LYING IN PLAIN VIEW ON THE GRASS.

THE OBJECT WAS CYLINDRICAL IN SHAPE, APPROX. 1 FOOT LONG AND APPROX. 4" IN DIAMETER. IT APPEARED TO BE A LARGE BEVERAGE CAN WRAPPED IN TAPE. THERE WAS A SMALL HOLE IN THE SIDE OF THE OBJECT WITH THE BURNT REMNANTS OF A FUSE OR WICK PROTRUDING. THE OBJECT LOOKED WATERLOGGED.

I SECURED THE AREA AND E.O.D. WAS NOTIFIED. SGT. REILLY AND SGT. ANDERSON ARRIVED. SGT. REILLY EXAMINED THE OBJECT AND AFTER OPENING IT, DETERMINED IT TO BE A CONTAINER OF SMOKELESS BLACK POWDER, WITH A FUSE ATTACHED. THE OBJECT WAS DAMP AND IN NO DANGER OF DETONATING. E.O.D. TOOK THE OBJECT WITH THEM.

10. SIGNATURE OF REPORTING OFFICER DELTORCHIO	11. ID. NUMBER 956	12. REVIEWED BY ★ 2-28-93	13. FOLLOW-UP REFERRED TO	14. FURTHER ACTION YES <input type="checkbox"/> NO <input type="checkbox"/>
---	------------------------------	-------------------------------------	---------------------------	--

**** POLICE CALL NO: 01-930590047 SUSPICIOUS CIRCUMSTANCES ****

Disposition.: REPORT TAKEN Date Recvd: 022893 WS-ID: C4 User: JENN
 Incident No.: 01-93000752 Resp: 2 Units: 02 Lock : L Status: F/A
 Caller Name: BOARDMAN MIKE Phone#: (000) 745-9103
 C Caller Addr: 00605 EAST 5TH Apt: City/ST:
 Loc. of Call: 00000 BAYSHORE ROAD BY Apt:F City...:
 A Common Name: Intersection:
 Unit# Received Dispatch At Scene Available Police Employees Veh ID
 L SS 095702 100043 100052 000000 0956
 001 RPTS ON BAYSHORE ROAD EAST OF THE RAILROAD TRESSELS BY Narrative
 L 002 SULFUR SPRINGS HE NOTICED A POSSIBLE PIPE BOMB. RP Narrative
 003 STATES THERE IS A METAL CONTAINER WITH TAPE WRAPPED Narrative
 * 004 AROUND IT, WITH A SMALL HOLE IN THE SIDE AND A WICK COMING Narrative
 005 OUT OF IT. HE STATED IT LOOKED LIKE SOMEONE TRIED TO Narrative
 006 LIGHT IT BUT WAS UNSUCCESSFUL AND THEY DISGARDDED IT. Continues

Control Line:
 Narrative #: RPTS ON BAYSHORE ROAD EAST OF THE RAILROAD TRESSELS BY ***
 Caller Name: L- BOARDMAN F- MIKE M- Phone: 745 9103 / 000
 Caller Addr: 00605 EAST 5TH Apt: Ct/St:
 Loc. of Call: 00000 BAYSHORE ROAD BY SULFUR S Apt: City :
 Common Name: Call#: 47F Resp: 2 Units: 02
 Intersection: / Asgn.: -SS
 Type of Call: 102 SUSPICIOUS CIRCUMSTA Disp.: REPORT TAKEN
 CAD202 2/28/93 11:59:46

**BENICIA POLICE DEPARTMENT
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Released by _____ Date _____

**** POLICE CALL NO: 01-930590047 SUSPICIOUS CIRCUMSTANCES ****
 Disposition.: REPORT TAKEN Date Recvd: 022893 WS-ID: C4 User: JENN
 Incident No.: 01-93000752 Resp: 2 Units: 02 Lock : L Status: F/A
 Caller Name: BOARDMAN MIKE Phone#: (000) 745-9103
 C Caller Addr: 00605 EAST 5TH Apt: City/ST:
 Loc. of Call: 00000 BAYSHORE ROAD BY Apt:F City...:
 A Common Name: Intersection:
 Units Received Dispatch At Scene Available Police Employees Veh ID
 L 007 IT ALSO LOOKED LIKE OTHERS WERE LITE IN THE AREA DUE Narrative
 008 TO HIM SEEING ALUMINUM SHRAPNEL AROUND. Narrative
 L 009 ** EDD RESPONDING. CASE# PULLED FOR AN INFO REPORT. Narrative

*

Control Line:
 Narrative #1: RPTS ON BAYSHORE ROAD EAST OF THE RAILROAD TRESSELS BY +++
 Caller Name: L- BOARDMAN F- MIKE M- Phone: 745 9103 / 000
 Caller Addr: 00605 EAST 5TH Apt: Ct/St:
 Loc. of Call: 00000 BAYSHORE ROAD BY SULFUR S Apt: City :
 Common Name: Call#: 47P Resp: 2 Units: 02
 Intersection: / Asen.: -SS
 Type of Call: 102 SUSPICIOUS CIRCUMSTA Disp.: REPORT TAKEN
 CAD202 2/28/93 12:00:02

BENICIA POLICE DEPARTMENT
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 Released by _____ Date _____

** POLICE CALL NO: 01-921290061 ASSIST HEALTH DEPARTMENT **
 Disposition.: REFERRED TO OT Date Recvd: 050892 WS-ID: C5 User: DIRK
 Incident No.: Resp: 2 Units: 01 Lock : U Status: F/F
 Caller Name: MCKELVEY J.C. Phone#: (000) 747-5508
 C Caller Addr: 00000 NICKS CUSTOM GOLApt:R City/ST:
 Loc. of Call: 03190 PARK ROAD Apt: City...:
 A Common Name: NICK'S CUSTOM GOLF CART Intersection: BAYSHORE ROAD
 Unit# Received Dispatch At Scene Available Police Employees Veh ID
 L T1 131009 131221 131338 144548 1060
 S2 131009 131221 000000 144548 0078
 L 001 RPTS SOME LANDSCAPERS DUG UP A HAND GRENADE ON THE PROPERTY. Narrative :
 002 *** 1317 HRS EOD E/R Narrative (

Control Line:
 Narrative #1:
 Caller Name: L- F- M- Phone: 000 0000 / 000
 Caller Addr: 00000 Apt: Ct/St:
 Loc. of Call: 00000 Apt: City :
 Common Name: Call#: Resp: Units:
 Intersection: / Asgn.:
 Type of Call: Disp.:
 CAD202 12/07/93 11:18:08

BENICIA POLICE DEPARTMENT
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Released to

 Released by _____ Date _____

APPENDIX B

PRESENT SITE PHOTOGRAPHS

27

**ORDNANCE AND EXPLOSIVE WASTE
CHEMICAL WARFARE MATERIALS
ARCHIVES SEARCH REPORT
FOR
BENICIA ARSENAL
BENICIA, CALIFORNIA**

DERP-FUDS SITE NO. J09CA075600

APPENDIX B

PRESENT SITE PHOTOGRAPHS

Page B-3

PHOTO # 1 - Debris near igloo on Benicia Industries property

PHOTO # 2 - Debris near igloo on Benicia Industries property

Page B-4

PHOTO # 3 - Typical igloo on Benicia Industries property

PHOTO # 4 - Typical igloo on Exxon's property

Page B-5

PHOTO # 5 - Typical igloo on Exxon's property

PHOTO # 6 - Open storage area

Page B-6

PHOTO # 7 - Open storage area

PHOTO # 8 - Firing point for artillery testing (Area 4)

Page B-7

PHOTO # 9 - Impact point for artillery testing (Area 4)

PHOTO # 10 - Hillside behind impact point for artillery testing (Area 4)

**ORDNANCE AND EXPLOSIVE WASTE
CHEMICAL WARFARE MATERIALS
ARCHIVES SEARCH REPORT
FOR
BENICIA ARSENAL
BENICIA, CALIFORNIA**

DERP-FUDS SITE NO. J09CA075600

APPENDIX B

PRESENT SITE PHOTOGRAPHS

Page B-8

PHOTO # 11 - Front of artillery test tunnels (Area 5)

PHOTO # 12 - Side entrance to artillery test tunnel (Area 5)



PHOTO # 1
DEBRIS NEAR IGLOO ON BENICIA INDUSTRIES PROPERTY



PHOTO # 2
DEBRIS NEAR IGLOO ON BENICIA INDUSTRIES PROPERTY



PHOTO # 3

TYPICAL IGLOO ON BENICIA INDUSTRIES PROPERTY

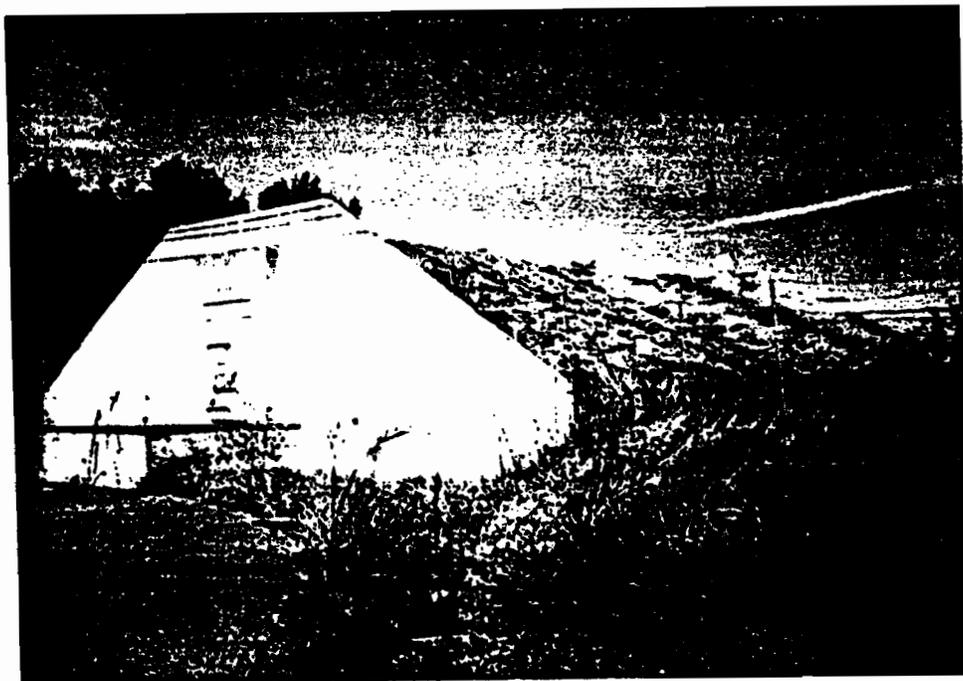


PHOTO # 4

TYPICAL IGLOO ON EXXON'S PROPERTY

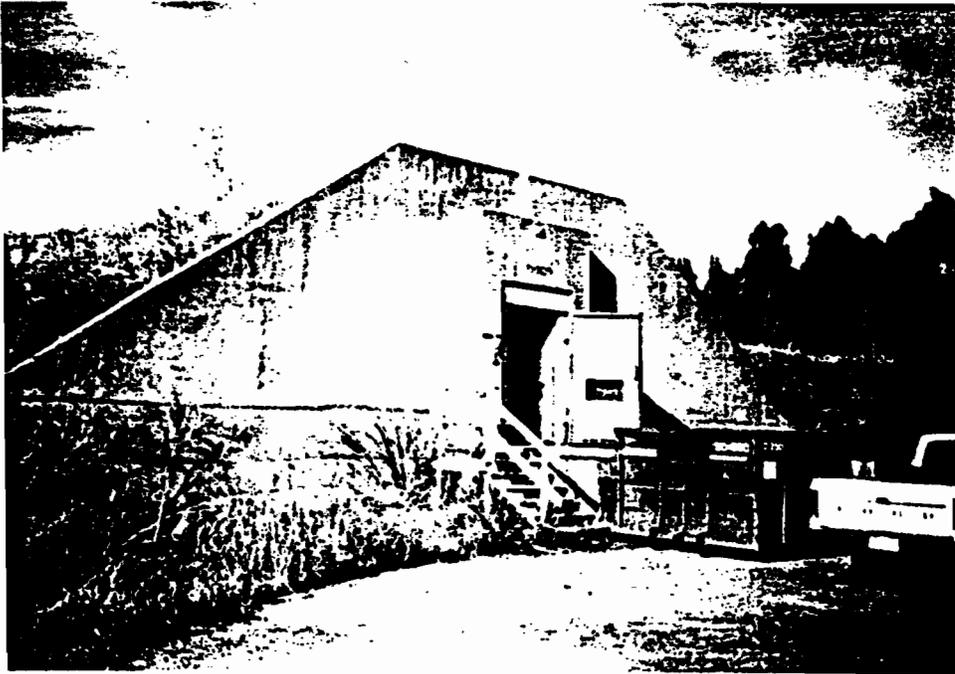


PHOTO # 5
TYPICAL IGLOO ON EXXON'S PROPERTY

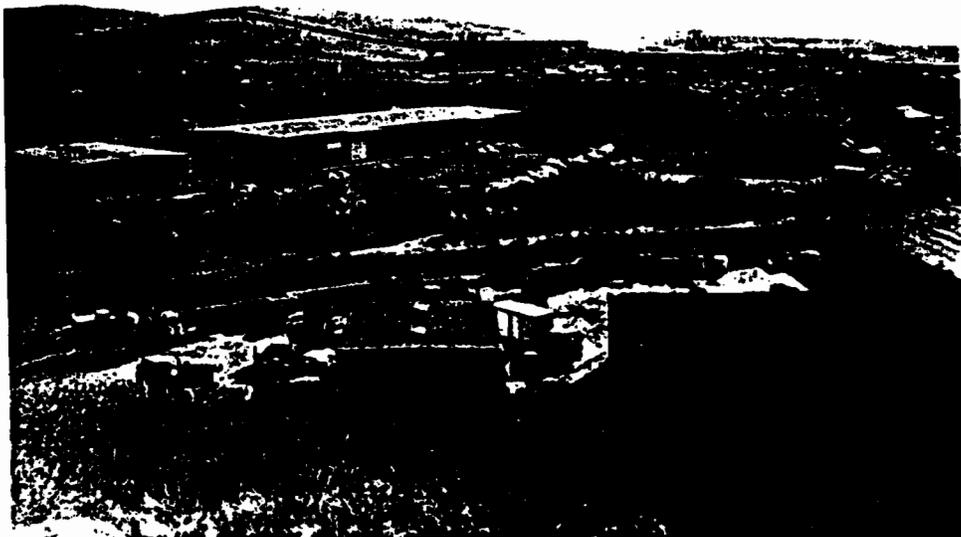


PHOTO # 6
OPEN STORAGE AREA



**PHOTO # 7
OPEN STORAGE AREA**



**PHOTO # 8
FIRING POINT FOR ARTILLERY TESTING
(AREA 4)**

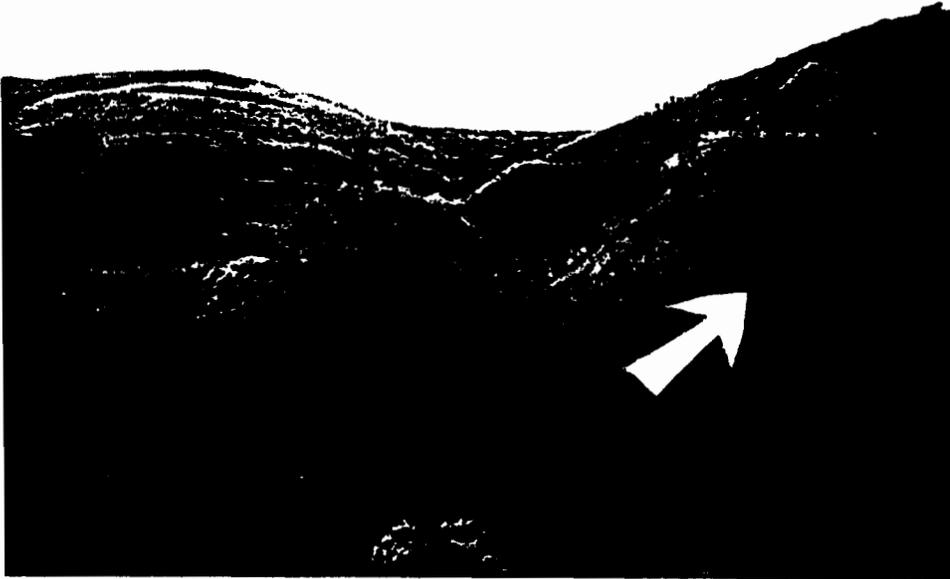


PHOTO # 9
IMPACT POINT FOR ARTILLERY TESTING
(AREA 4)

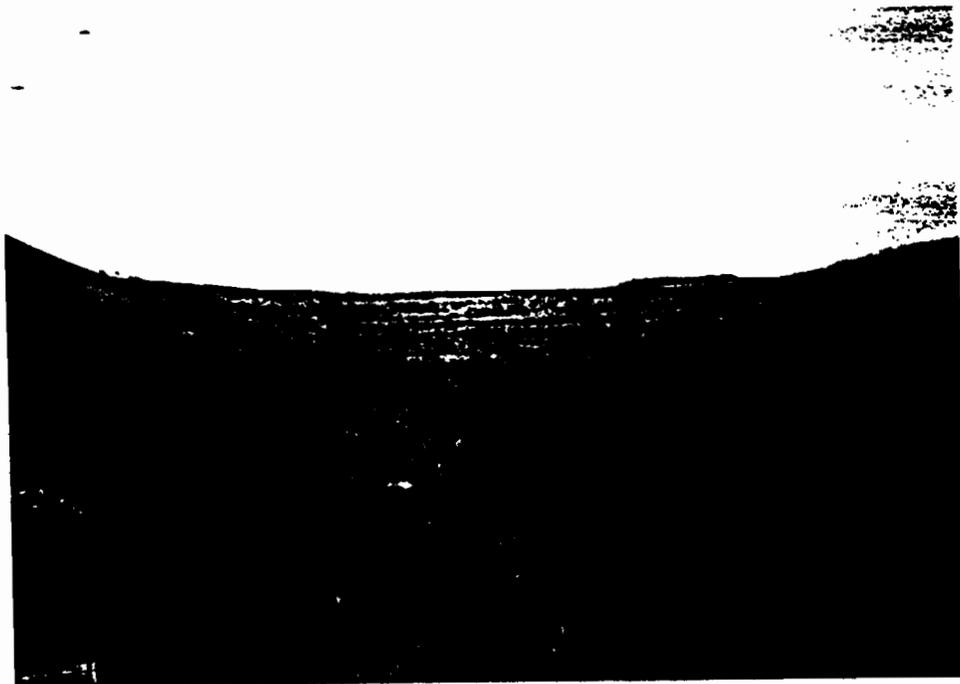


PHOTO # 10
HILLSIDE BEHIND IMPACT POINT FOR ARTILLERY TESTING
(AREA 4)



**PHOTO # 11
FRONT OF ARTILLERY TEST TUNNELS
(AREA 5)**



**PHOTO # 12
SIDE ENTRANCE TO ARTILLERY TEST TUNNEL
(AREA 5)**

APPENDIX C
RISK ASSESSMENT CODE PROCEDURE FORMS

10 Feb 93

RISK ASSESSMENT PROCEDURE FOR
ORDNANCE AND EXPLOSIVE WASTE (OEW) SITE

Site Name	<u>Benicia Arsenal</u>	Rater's Name	<u>Ted Moore</u>
Site Location	<u>Benicia, CA</u>	Phone No.	<u>(314) 331-8849</u>
DERP Project#	<u>J09CA075600</u>	Organization	<u>CELMS-PM-M</u>
Date Completed	<u>January 11, 1994</u>	RAC Score	<u>2</u>

OEW RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882B and AR 385-10. The RAC score will be used by CEHND to prioritize the remedial action at this site. The OEW risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential OEW hazards identified at the site. The risk assessment is composed of two factors, hazard severity and hazard probability. Personnel involved in visits to potential OEW sites should view the CEHND videotape entitled "A Life Threatening Encounter, OEW."

Part I. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPE OF ORDNANCE
(Circle all values that apply)

A. Conventional Ordnance and Ammunition	VALUE
Medium/Large Caliber (20mm and larger)	10
Bombs, Explosive	10
Grenades, Hand and Rifle, Explosive	10
Landmines, Explosive	10
Rockets, Guided Missiles, Explosive	10
Detonators, Blasting Caps, Fuzes, Boosters, Bursters	6
Bombs, Practice (w/spotting charges)	6
Grenades, Practice (w/spotting charges)	4
Landmines, Practice (w/spotting charges)	4
Small Arms (.22 cal - .50 cal)	1
Conventional Ordnance and Ammunition (Select the largest single value)	<u>10</u>

What evidence do you have regarding conventional OEW? Local police responded to landscapers who found a hand grenade and a construction site where a shell casing was found.

B. Pyrotechnics (For munitions not described above)

	VALUE
Munition (Container) containing White Phosphorus or other Pyrophoric Material (i.e., Spontaneously Flammable)	10
Munitions Containing A Flame or Incendiary Material (i.e., Napalm, Triethylaluminum Metal Incendiaries)	6
Flares, Signals, Simulators	4
Pyrotechnics (Select the largest single value)	<u>0</u>
What evidence do you have regarding pyrotechnics?	<u>None</u>

C. Bulk High Explosives (Not an integral part of conventional ordnance; uncontainerized.)

	VALUE
Primary or Initiating Explosives (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	10
Demolition Charges	10
Secondary Explosives (PETN, Compositions A, B, C Teteryl, TNT, RDX, HMX, HBX, Black Powder, etc.)	8
Military Dynamite	6
Less Sensitive Explosives (Ammonium Nitrate, Explosive D, etc.)	3
High Explosives (Select the largest single value)	<u>0</u>
What evidence do you have regarding bulk explosives?	<u>None</u>

D. Bulk Propellants (Not an integral part of rockets, guided missiles, or other conventional ordnance; uncontainerized)

	VALUE
Solid or Liquid Propellants	6
Propellants	<u>0</u>
What evidence do you have regarding bulk propellants?	<u>None</u>

E. Radiological/Chemical Agent/Weapons

	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification sets	20
Radiological	15
Riot Control and Miscellaneous (Vomiting, Tear, incendiary and smoke)	5
Radiological/Chemical Agent (Select the largest single value)	<u>0</u>
What evidence do you have regarding chemical/radiological, OEW?	_____
<u>No evidence of CWM remains on the site.</u>	

Total Hazard Severity Value

(Sum of the Largest Values for A through E--Maximum of 61). 10
Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY*

Description	Category	Value
CATASTROPHIC	I	≥21
CRITICAL	II	≥10 <21
MARGINAL	III	≥5 <10
NEGLIGIBLE	IV	≥1 <5
**NONE		0

* Apply Hazard Severity Category to Table 3

**If Hazard Severity Value is 0, you do not need to complete Part II. 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 or explosive materials on a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF OEW HAZARD
(Circle all values that apply)

A. Location of OEW Hazards	VALUE
On the surface	5
Within Tanks, Pipes, Vessels or Other confined locations	4
Inside walls, ceilings, or other parts of Buildings and Structures	3
Subsurface	(2)
Location (Select the single largest value)	<u>2</u>
What evidence do you have regarding location of OEW? <u>Police reports</u> <u>documenting OEW found.</u>	

B. Distance to nearest inhabited locations or structures likely to be at risk from OEW hazard (roads, playgrounds, and buildings).

	VALUE
Less than 1250 feet	(5)
1250 feet to 0.5 miles	4
0.5 miles to 1.0 miles	3
1.0 miles to 2.0 miles	2
Over 2 miles	1
Distance (Select the single largest value)	<u>5</u>
What are the nearest inhabited structures? <u>The property has been</u> <u>developed as an industrial park.</u>	

C. Numbers of buildings within a 2 mile radius measured from the OEW hazard area, not the installation boundary.

	VALUE
26 and over	5
16 to 25	4
11 to 15	3
6 to 10	2
1 to 5	1
0	0
Number of Buildings (Select the single largest value)	<u>4</u>

Narrative The former arsenal has been developed into an industrial park. There are also many commercial buildings on the site.

D. Types of Buildings (within a 2 mile radius)

	VALUE
Educational, Child Care, Residential, Hospitals, Hotels, Commercial, Shopping Centers	5
Industrial, Warehouse, etc.	4
Agricultural, Forestry, etc.	3
Detention, Correctional	2
No Buildings	0
Types of Buildings (Select the largest single value)	<u>5</u>

Describe types of buildings in the area. Office and industrial buildings.

E. Accessibility to site refers to access by humans to ordnance and explosive wastes. Use the following guidance:

BARRIER	VALUE
No barrier or 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
Isolated site	1
A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility; or An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates, or other entrances to the facility (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the facility).	0
Accessibility (Select the single largest value)	<u>5</u>
Describe the site accessibility. <u>Some fences exist on the site but the only ones that restrict access belong to Exxon.</u>	

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 by beaches or streams, increasing land development that could reduce distances from the site to inhabited areas or otherwise increase accessibility.

	VALUE
Expected	5
None Anticipated	0
Site Dynamics (Select largest value)	<u>5</u>
Describe the site dynamics. <u>A large portion of the former arsenal property is vacant and available for development. Industrial is ongoing.</u>	

Total Hazard Probability Value
 (Sum of Largest Values for A through F--Maximum of 30) 26
 Apply this value to Hazard Probability Table 2 to determine
 Hazard Probability Level.

TABLE 2
HAZARD PROBABILITY

Description	Level	Value
FREQUENT	A	≥27
PROBABLE	B	(≥21<27)
OCCASIONAL	C	≥15<21
REMOTE	D	≥ 8<15
IMPROBABLE	E	<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 3. Enter with 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	5
MARGINAL	III	2	3	4	4	5
NEGLIGIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

- RAC 1 Imminent Hazard - Expedite INPR - Immediately call CEHND-ED-SY--commercial (205) 955-4968 or DSN 645-4968
- RAC 2 High priority on completion of INPR - Recommend further action by CEHND.
- RAC 3 Complete INPR - Recommend further action by CEHND.
- RAC 4 Complete INPR - Recommend further action by CEHND.
- RAC 5 Recommend no further action. Submit NOFA and RAC to CEHND.

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.

Records searches and aerial photograph review indicate that large quantities of ordnance and CWM were stored on and shipped from this facility. Police reports document two incidents of ordnance items being dug up on the site. There is anecdotal evidence of several additional ordnance items found on the site. No evidence of OEW or CWM was found during the site inspection.



APPENDIX D

REPORT DISTRIBUTION LIST

**ORDNANCE AND EXPLOSIVE WASTE
CHEMICAL WARFARE MATERIALS
ARCHIVES SEARCH REPORT**

**FOR
BENICIA ARSENAL
BENICIA, CALIFORNIA**

DERP-FUDS SITE NO. J09CA075600

APPENDIX D

REPORT DISTRIBUTION LIST

<u>Addressee</u>	<u>No Copies</u>
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Commander, U.S. Army Chemical Materiel Destruction Agency ATTN: SFIL-NSM, Bldg E4585 Aberdeen Proving Ground, MD 21010	1
Commander, U.S. Army Chemical & Biological Defense Command ATTN: AMSCB-CIH, Bldg E5183 Aberdeen Proving Ground, MD 21010-5423	1
Commander, U.S. Army Corps of Engineers, Sacramento District 1325 "J" Street Sacramento, CA 95814-7859	1
CELMS-ED-G	1
-ED-H	1
-PD	1
-PM-M	1