

ATTACHMENT G1-1

EVALUATION OF PREVIOUS WORK CHECKLISTS

**ATTACHMENT G1-1  
EVALUATION OF PREVIOUS WORK  
EVALUATION CHECKLIST PART 1: MRS 2 - Pete's Pond  
LITERATURE REVIEW**

**TYPE OF TRAINING AND MILITARY MUNITIONS EXPECTED**

Yes                  No                  Inconclusive

**1. Is there evidence that the site was used as an impact area (i.e., fired military munitions such as mortars, projectiles, rifle grenades or other launched ordnance)?**

	No	
--	----	--

**Sources reviewed and comments**

The only reference to a training area within the boundaries of MRS-2 is a "Survey Training Area" shown in the northern portion of MRS-2 (to the north of Pete's Pond) on a map dated December 20, 1956. This site lies within an area identified on a 1945 map as a "Well Area, No Artillery Firing or Demolitions." Numerous training sites were located immediately adjacent (primarily to the west and south) over the years. The training sites included rifle instruction circles, physical training areas, confidence course, pole orchard, hand to hand combat area, land navigation, and a DSS ITT course. Remedial investigations conducted at RI Sites 16 and 17 found evidence of the disposal of military munitions at these sites. Munitions debris including inert 2.36-inch practice rockets, a 3.5-inch practice rocket, rifle grenade parts, a smoke grenade, and expended small arms ammunition cartridges were found buried with other debris (e.g., construction debris and household refuse).

It is believed that the presence of these items is related to their disposal at this site and not from onsite training. The southern portion of the site (Pete's Pond, RI Site 16) and adjacent RI Site 17 were used as disposal areas in the 1950s.

**References**

Army, 1945, 1946, 1956, 1957, 1958; USAEDH, 1993; HLA, 1995; IT, 1999

**ATTACHMENT G1-1  
EVALUATION OF PREVIOUS WORK  
EVALUATION CHECKLIST PART 1: MRS 2 - Pete's Pond  
LITERATURE REVIEW**

**TYPE OF TRAINING AND MILITARY MUNITIONS EXPECTED**

	Yes	No	Inconclusive
<b>2. Is there historical evidence that training involved use of High Explosive (HE) or Low Explosive (LE) items?</b>	Yes		

**Sources reviewed and comments**

The site was reportedly used as a landmine warfare training area. Practice mines may contain smoke charges. The charges contain black powder and red phosphorous which can be considered low explosive items.

**References**

USAEDH 1993; Army, 1977.

<b>3. Is there historical evidence that training involved use of pyrotechnic and/or smoke producing items (e.g., simulators, flares, smoke grenades) but not explosives?</b>	Yes		
--	-----	--	--

**Sources reviewed and comments**

The site was reportedly used as a landmine warfare training area. Practice mines may contain smoke charges which are considered pyrotechnic items. No evidence of land mine or chemical training was identified on Fort Ord training facilities maps.

**References**

USAEDH, 1993; Army, 1945, 1946, 1956, 1957, 1958, 1965, and 1977.

**DEVELOPMENT AND USE OF THE SURROUNDING AREA**

<b>4. Does subsequent development or use of the area indicate that military munitions would have been used at the site?</b>		No	
---	--	----	--

**Sources reviewed and comments**

The site remains undeveloped and is no longer used as a training area. No reports of the finding of military munitions were reported during the widening of the adjacent roadway (Imjin Parkway).

**References**

Army, 1984.

**ATTACHMENT G1-1  
EVALUATION OF PREVIOUS WORK  
EVALUATION CHECKLIST PART 1: MRS 2 - Pete's Pond  
LITERATURE REVIEW**

**TYPE OF TRAINING AND MILITARY MUNITIONS EXPECTED**

Yes                  No                  Inconclusive

**5. Does use of area surrounding the site indicate that military munitions would have been used at the site?**

	No	
--	----	--

**Sources reviewed and comments**

Areas to the west and south are developed. Adjacent training areas appear to be physical training areas (e.g., pole orchard, hand to hand combat, rifle instruction circles, confidence course).

**References**

Army, 1954, 1956, 1957, 1958, 1961, 1964, 1965, 1967, 1968, 1972.

**ESTABLISHMENT OF SITE BOUNDARIES**

**6. Is there evidence of training areas on aerial photographs that could be used to establish boundaries?**

	No	
--	----	--

**Sources reviewed and comments**

Several cleared and disturbed areas are visible in aerial photographs. However, there are no site features that would suggest a likely location for chemical or landmine training. 1951 aerial photos show grading activities in the Pete's Pond area.

**7. Is there evidence of training on historical training maps that could be used to establish boundaries?**

	No	
--	----	--

**Sources reviewed and comments**

A "Survey Training Area", shown on a 1956 map, is the only designated training area within the ASR site boundary. This training area overlaps with but does not fall completely within the site boundaries.

**References**

Army, 1956

**ATTACHMENT G1-1  
EVALUATION OF PREVIOUS WORK  
EVALUATION CHECKLIST PART 1: MRS 2 - Pete's Pond  
LITERATURE REVIEW**

**TYPE OF TRAINING AND MILITARY MUNITIONS EXPECTED**

**8. Should current boundaries be revised?**

Yes	No	Inconclusive
	No	

**Sources reviewed and comments**

The current boundaries do not need to be revised because they include the area described as the chemical training area and also include the disposal area at Pete's Pond.

**RESULTS OF LITERATURE EVALUATION**

***Does the literature review provide sufficient evidence to warrant further investigation?***

		Inconclusive
--	--	--------------

**Comments**

There was one unconfirmed report that CAISs were buried at the site along Imjin Road. Interview records indicate that the site was used for chemical and landmine warfare training. However, maps from the 1940s do not show that the area was used for chemical or mine training. Because information regarding burial(s) of CAIS kits is hearsay and reported location of burials is unclear, it is unlikely that further investigation would add any useful information regarding their presence.

**References**

- Harding Lawson Associates (HLA), 1995. Basewide Remedial Investigation/Feasibility Study, Fort Ord, California. October 19.
- IT Corporation (IT), 1999. Remedial Action Confirmation Report And Post-Remediation Health Risk Assessment, Sites 16 And 17, Remedial Action, Basewide Remediation Sites, Former Fort Ord, California. Volume I. Remedial Action Confirmation Report. Draft. April.
- U.S. Army (Army), 1945. Training Facilities, Fort Ord and Vicinity, California. Revised August 1945.
- \_\_\_\_\_, 1946. Main Garrison Cantonment Land Use Map, 53-1-9, 2a. March 20.
- \_\_\_\_\_, 1956. Map of Fort Ord Training Areas & Facilities. Enclosure I to Annex "O". Revised 20 December, 1956.
- \_\_\_\_\_, 1957. Map of Fort Ord Training Areas & Facilities. Enclosure I to Annex "H". Revised:15 July 1957.

**ATTACHMENT G1-1  
EVALUATION OF PREVIOUS WORK  
EVALUATION CHECKLIST PART 1: MRS 2 - Pete's Pond  
LITERATURE REVIEW**

**TYPE OF TRAINING AND MILITARY MUNITIONS EXPECTED**

	Yes	No	Inconclusive
<b>References (continued)</b>			
_____, 1956. Map of Fort Ord Training Areas & Facilities. Enclosure I to Annex "O". Revised 20 December 1956.			
_____, 1958. Map of Fort Ord Training Areas & Facilities. Enclosure I to Annex "H". Revised:10 January, 1958.			
_____, 1965. Close In Training Areas & Selected Post Facilities. Appendix 3 to Annex 0, 350-72. August 16, 1965.			
_____, 1967. Back County Roads, Field Training and Range Map. January, 1967.			
_____, 1972. Training Ranges and General Road Maps. March 16.			
_____, 1977. Technical Manual, Army Equipment Data Sheets for Land Mines. TM 43-001-36. February.			
_____, 1984. Training Facilities Map, Basic Information maps, Master Plan. June 1984.			
U.S. Army Engineering Division, Huntsville (USAEDH), 1993. Archives Search Report Fort Ord California, Monterey County, California. December. Prepared by U.S. Army Corps of Engineers St. Louis Division.			

**ATTACHMENT G1-1  
EVALUATION OF PREVIOUS WORK  
EVALUATION CHECKLIST PART 2: MRS 2, Pete's Pond  
SAMPLING EVALUATION**

**TYPE OF TRAINING AND MILITARY MUNITIONS EXPECTED**

	Yes	No	Inconclusive
<b>1. Is there evidence that the site was used as an impact area (i.e., fired military munitions such as mortars, projectiles, rifle grenades and other launched ordnance)?</b>		No	

**Sources reviewed and comments**

There is no evidence to suggest that the area was an impact area. Two munitions debris items found during sampling a practice bomb and a MK1A1 practice grenade. The site was reportedly used for land surveying training, chemical training, and landmine warfare training which do not involve launched military munitions. The site lies in close proximity to buildings and a ball field; therefore, it is unlikely that the area would be used as an impact area.

**References**

HFA, 1994; USAEDH, 1993.

**2. Is there evidence that training involved use of High Explosive (HE) or Low Explosive (LE) items?**

	No	
--	----	--

**Sources reviewed and comments**

The site was reportedly used for land surveying training, chemical training, and landmine warfare training. Except for surveying training, no physical evidence has been identified to confirm these uses. Two munitions debris items were found during sampling (practice bomb and MK1A1 practice grenade). Because of the proximity to developed areas, it is unlikely that practice bombs were used at MRS-2. The MK1A1 practice grenade is an inert training item.

**References**

HFA, 1994; USAEDH, 1993; Army, 1977.

**ATTACHMENT G1-1  
EVALUATION OF PREVIOUS WORK  
EVALUATION CHECKLIST PART 2: MRS 2, Pete's Pond  
SAMPLING EVALUATION**

**TYPE OF TRAINING AND MILITARY MUNITIONS EXPECTED**

**3. Is there evidence that training involved use of pyrotechnic and/or smoke producing items (e.g., simulators, flares, smoke grenades) but not explosives?**

Yes	No	Inconclusive
	No	

**Sources reviewed and comments**

Two munitions debris items found during sampling: practice bomb and a MK1A1 practice grenade.

**References**

HFA, 1994.

**4. Was sampling and/or reconnaissance performed within the appropriate area?**

Yes		
-----	--	--

**Sources reviewed and comments**

Most of the grids (16 out of 20) were within the ASR site boundary and were located in the area of the landfill as well as in the general location identified as the chemical training area.

**References**

HFA, 1994.

**5. Does sampling indicate MEC and/or munitions debris are present at the site?**

Yes		
-----	--	--

**Sources reviewed and comments**

Munitions debris was found including a practice grenade and practice bomb.

**References**

HFA, 1994; USAEDH, 1993

**6. Were the type(s) of items found consistent with the type of training identified for the site?**

	No	
--	----	--

**Sources reviewed and comments**

The site was identified as a chemical training area and landmine training area. No landmines or chemical agent identification kits have been found during sampling.

**References**

HFA, 1994; USAEDH, 1993.



**ATTACHMENT G1-1  
EVALUATION OF PREVIOUS WORK  
EVALUATION CHECKLIST PART 2: MRS 2, Pete's Pond  
SAMPLING EVALUATION**

**TYPE OF TRAINING AND MILITARY MUNITIONS EXPECTED**

	Yes	No	Inconclusive
<b>7. Were the type(s) of items found consistent with the era(s) in which training was identified?</b>			Inconclusive

**Sources reviewed and comments**  
The items found during sampling do not correspond with the type of training identified at MRS-2.

**References**  
HFA, 1994.

<b>8. Was HE fragmentation found?</b>		No	
---------------------------------------	--	----	--

**Sources reviewed and comments**  
A practice bomb and a MK1A1 practice grenade were the only items found during sampling.

**References**  
HFA, 1994.

<b>9. Was HE found?</b>		No	
-------------------------	--	----	--

**Sources reviewed and comments**  
No, practice bomb and MK1A1 practice grenade only.

**References**  
HFA, 1994.

<b>10. Were LE found?</b>		No	
---------------------------	--	----	--

**Sources reviewed and comments**  
No, practice bomb and MK1A1 practice grenade only.

**References**  
HFA, 1994.

<b>11. Were pyrotechnics found?</b>		No	
-------------------------------------	--	----	--

**Sources reviewed and comments**  
No, practice bomb and MK1A1 practice grenade only.

**References**  
HFA, 1994.

**ATTACHMENT G1-1  
EVALUATION OF PREVIOUS WORK  
EVALUATION CHECKLIST PART 2: MRS 2, Pete's Pond  
SAMPLING EVALUATION**

**TYPE OF TRAINING AND MILITARY MUNITIONS EXPECTED**

	Yes	No	Inconclusive
<b>12. Were smoke producing items found?</b>	<input type="checkbox"/>	No	<input type="checkbox"/>

**Sources reviewed and comments**  
No, practice bomb and MK1A1 practice grenade only.

**References**  
HFA, 1994.

<b>13. Were explosive items found (e.g. rocket motors with explosive components, fuzes with explosive components)?</b>	<input type="checkbox"/>	No	<input type="checkbox"/>
--	--------------------------	----	--------------------------

**Sources reviewed and comments**  
No, practice bomb and MK1A1 practice grenade only.

**References**  
HFA, 1994.

<b>14. Do items found in the area indicate training would have included use of training items with energetic components?</b>	<input type="checkbox"/>	No	<input type="checkbox"/>
--	--------------------------	----	--------------------------

**Sources reviewed and comments**  
A practice bomb and a MK1A1 practice grenade were found. It is unlikely that the practice bomb was used at MRS-2 because of the proximity of the site to developed areas. The MK1A1 practice grenade contains no energetic material.

**References**  
HFA, 1994; Army 1977.

<b>15. Were items found in a localized area (possibly the remnants of a cleanup action)?</b>	<input type="checkbox"/>	<input type="checkbox"/>	Inconclusive
--	--------------------------	--------------------------	--------------

**Sources reviewed and comments**  
Field documentation that would provide the location of the items found during sampling was not available.

**References**  
HFA, 1994.

**ATTACHMENT G1-1  
EVALUATION OF PREVIOUS WORK  
EVALUATION CHECKLIST PART 2: MRS 2, Pete's Pond  
SAMPLING EVALUATION**

**TYPE OF TRAINING AND MILITARY MUNITIONS EXPECTED**

	Yes	No	Inconclusive
<b>16. Has the site been divided into sectors to focus on areas of common usage, similar topography and vegetation, and/other unique site features?</b>		No	

**Sources reviewed and comments**  
The site was not divided into sectors based on past usage or site features.

**References**  
HFA, 1994.

<b>17. Should current site boundaries be revised?</b>		No	
---	--	----	--

**Sources reviewed and comments**  
The current boundaries do not need to be revised because they include the area described as the chemical training area and also include the disposal area at Pete's Pond. Munitions debris was found in the disposal area.

<b>18. Was equipment used capable of detecting items suspected at the site at the maximum expected depth?</b>			Inconclusive
---	--	--	--------------

**Sources reviewed and comments**  
Schonstedt GA-52/C and GA-72/Cv magnetometers were used by HFA to investigate the site. Mines would be expected at or near the ground surface. The site grids were sampled to a depth of 4 feet below ground surface. Some practice mines can be non-metallic, and therefore would not be detected by the magnetometers. Equipment would not be able to detect individual glass containers comprising chemical agent identification sets (CAIS). However, if the CAIS were contained in a metal packing container, they would be detected by the Schonstedt.

**ATTACHMENT G1-1  
EVALUATION OF PREVIOUS WORK  
EVALUATION CHECKLIST PART 2: MRS 2, Pete's Pond  
SAMPLING EVALUATION**

**TYPE OF TRAINING AND MILITARY MUNITIONS EXPECTED**

	Yes	No	Inconclusive
<b>19. Was equipment used capable of detecting the types of items (e.g., non-ferrous) suspected at the site?</b>			Inconclusive

**Sources reviewed and comments**

The Schonstedt family of instruments detects only ferrous items. Some of the munitions-related items potentially used at the site could include non-metallic mines and therefore, would not have been detected using the above referenced equipment. In addition, individual glass containers from the CAIS would not be detected by the Schonstedt.

<b>20. Do the results of the ODDS indicate that items suspected at the site would have been detected by the instrument used at the time of investigation?</b>			Inconclusive
---	--	--	--------------

**Sources reviewed and comments**

Land mines were not listed as items of study in the ODDS, but would probably be categorized as Type I or Type II. Although not directly comparable to MRS-2, the results of the ODDS indicate that the equipment used would be capable of detecting ferrous MEC and MD buried up to 2 feet bgs. Individual CAIS ampoules and nonmetallic practice mines would not be detected by magnetometers.

**References**

HFA, 1994; Parsons, 2001.

<b>21. Do results of the investigation indicate that suspected items could be detected with a high level of confidence at observed and expected depth ranges?</b>			Inconclusive
---	--	--	--------------

**Sources reviewed and comments**

The Schonstedt magnetometers should be able to detect ferrous MEC and MD to a depth of 2 feet bgs (metallic practice mines). Individual CAIS ampoules and nonmetallic practice mines would not be detected by the Schonstedt magnetometer.

**References**

Parsons, 2001.

**ATTACHMENT G1-1  
EVALUATION OF PREVIOUS WORK  
EVALUATION CHECKLIST PART 2: MRS 2, Pete's Pond  
SAMPLING EVALUATION**

**TYPE OF TRAINING AND MILITARY MUNITIONS EXPECTED**

**22. Were all the instruments used to evaluate the site maintained and calibrated in accordance with associated work plan and manufacturer's specifications?**

Yes	No	Inconclusive
Yes		

**Sources reviewed and comments**

As stated in the After Action report, "Each magnetometer was tested each morning and field tested after lunch to determine that it was operating correctly."

**References**

HFA, 1994.

**23. Based on the anticipated target density (UXO items per acre) has the minimal amount of sampling acreage been completed in accordance with the scope of work or contractor work plan?**

		Inconclusive
--	--	--------------

**Sources reviewed and comments**

There is no anticipated density of items. The practice bomb and practice grenade were probably disposed of at the site or the associated with RI Site 16 or 17 disposal area.

**24. Based on sampling procedure (e.g., grids, transects, and/or random walks) was a percentage of the site completed to provide 95% confidence in a MEC density estimate, and if so provide total area investigated and the MEC density estimate.**

		Inconclusive
--	--	--------------

**Sources reviewed and comments**

200,000 square feet (approximately 4.59 acres) sampled by HFA based on 20 100x100-foot grids. One practice bomb and a practice grenade were found during sampling. No MEC was found; therefore, MEC densities were not calculated.

Total Area: 200,000 sq ft		
OE Density:	Not calculated	

**References**

HFA, 1994.

**ATTACHMENT G1-1  
EVALUATION OF PREVIOUS WORK  
EVALUATION CHECKLIST PART 2: MRS 2, Pete's Pond  
SAMPLING EVALUATION**

**TYPE OF TRAINING AND MILITARY MUNITIONS EXPECTED**

**25. What percentage of the anomalies were intrusively investigated?** Yes      No      Inconclusive

**Sources reviewed and comments**

HFA, 100% grid sampling (the number of anomalies is unknown).

**References**

HFA, 1994.

Total % of anomalies investigated	HFA: 100%
-----------------------------------	-----------

**26. Was the appropriate data processing scheme used for the site, how was the data processed?**

		Not applicable
--	--	----------------

**Sources reviewed and comments**

Not applicable. No digital geophysical data was collected.

**27. Has the field data been collected and managed in accordance with quality control standards established for the project?**

		Inconclusive
--	--	--------------

**Sources reviewed and comments**

"The project was completed without QC discrepancy," (HFA, 1994). HFA field data are not available for review. It is not possible to perform a 10% check of reported results and field/grid records.

**Result of Sampling Evaluation**

**Does the sampling evaluation provide sufficient evidence to warrant further investigation?**

	No	
--	----	--

**Comments**

No MEC related to past training activities at the site (chemical training or landmine warfare training) were found during MEC sampling. Sampling involved a geophysical investigation within and adjacent to the site boundaries. There was one unconfirmed report that CAISs were buried at the site. Individual glass containers from the CAISs would not be detected by the magnetometers used. Because information regarding burial(s) of CAIS kits is hearsay and reported location of burials is unclear, it is unlikely that further investigation would add any useful information regarding their presence.

**ATTACHMENT G1-1**  
**EVALUATION OF PREVIOUS WORK**  
**EVALUATION CHECKLIST PART 2: MRS 2, Pete's Pond**  
**SAMPLING EVALUATION**

**TYPE OF TRAINING AND MILITARY MUNITIONS EXPECTED**

Yes          No          Inconclusive

**REFERENCES**

Army, 1946. Main Garrison Cantonment Land Use Map, 53-1-9, 2a. March 20.

\_\_\_\_\_, 1977a. Technical Manual, Army Ammunition Data Sheets For Grenades, TM 43-0001-29, October.

\_\_\_\_\_, 1977b. Department of the Army Headquarters, Technical Manual, Army Ammunition Data Sheets for Land Mines (FSC 1345), TM 43-0001-36. February 14. HLA# 62040.

HFA, 1993. Human Factors Applications, Inc. Explosive Ordnance Disposal Division, OEW Site Operations Fort Ord-Phase I Work Plan and Accident Prevention Plan. December.

HFA, 1994. Human Factors Applications, Inc. Explosive Ordnance Disposal Division, OEW Sampling and OEW.

Removal Action, FT. ORD FINAL REPORT. December 1.

Harding Lawson Associates (HLA), 1995. Basewide Remedial Investigation/Feasibility Study, Fort Ord, California. October 19.

IT, 1999. Remedial Action Confirmation report And Post-Remediation Health Risk Assessment Sites 16 And 17 Remedial Action, Basewide Remediation Sites, Former Fort Ord, California. Draft Final, April.

Parsons, 2001. Draft Ordnance Detection and Discrimination Study (ODDS), Former Fort Ord, Monterey, California. August.

USAEDH, 1993. Archives Search Report, Former Fort Ord, California, Monterey County, California. Prepared by US Army Corps of Engineers St. Louis District.

USAESCH, 1997. Penetration of Projectiles Into Earth, An Analysis of UXO Clearance Depths at Ft. Ord. September 10. Appendix F of the Phase 2 EE/CA.

ATTACHMENT G1-2

MILITARY MUNITIONS POTENTIALLY PRESENT OR FOUND AT THE SITE



## ATTACHMENT G1-2

### MILITARY MUNITIONS POTENTIALLY PRESENT OR FOUND AT THE SITE

Based on the interview records concerning past training at the site and dated material found in the disposal area, it is believed that potential military munitions associated with the site would be World War II vintage. Information concerning military munitions potentially used at the site (practice mines) and found at the site (2.36-inch practice rockets, rifle and smoke grenades) were obtained from The American Arsenal (*Hogg, 2001*) and an Army Technical Manual (*Army, 1977a*).

#### Mines

Practice mines were likely to have been used for landmine warfare training in during the 1940s. The following presents a description of a World War II vintage practice mine.

M1 antitank practice mines were used in World War II. According to Headquarters Munitions Command data cards, these mines were produced between 1941 and 1945. The M1 consists of a mine body, spider, black powder charge, smoke charge, detonator, firing pin assembly, safety fork, fuze, shear pins, and steel filler ring. The steel filler ring is inserted in the mine body so that the M1 will equal the weight of the M1A1 and M4 mines. The fuze consists of a striker assembly and a body that contains the detonator. The firing pin is normally held away from the detonator by two steel balls. When the fuze is inserted and the spider attached, a pressure of 250 pounds on the spider is sufficient to activate the fuze. In the M1, the fuze sets off a smoke-puff charge; the charge produces smoke which escapes from the mine through the holes. The charge consists of 60 grains of army black powder which ignites 100 grains of red phosphorous. The complete assembly weighs 10.67 pounds and is 8.2 inches in diameter and 4.25 inches high (*Hogg, 2001*).

#### Grenades

Parts to a rifle grenade and a M18 smoke grenade were found during trenching activities at the site. HFA found a MK1A1 practice grenade during site sampling.

Rifle grenades are designed to be fired from a rifle or carbine by a launcher attached to the muzzle of the rifle. Rifle grenades are divided into high explosive (or service) and practice. The antitank grenades have a sheet steel body and tail assembly. The practice antitank grenade differs from the explosive/service grenade in that the fin is replaceable. Rifle fragmentation grenades consist of a fin stabilizer assembly with an impact-type fuze. The head consists of a hand grenade fuze body.

M18 Hand Grenade, Smoke. The M18 is a colored smoke hand grenade used for ground to air or ground to ground signaling. The grenades may be filled with any one of four smoke colors: red, green, yellow, or violet. Each grenade will emit smoke for 50 to 90 seconds. The grenade body is of thin sheet metal and is filled with smoke composition and topped with a starter mixture. The hand grenade fuze M201A1 is a pyrotechnic delay igniting fuze. The body contains a primer, first-fire mixture, pyrotechnic delay column, and ignition mixture. Assembled to the body are a striker, striker spring, safety lever, and safety pin with pull ring. The grenade weighs 19 ounces and contains 11.5 ounces of smoke composition. The grenade functions by removing the safety pin from the safety lever and throwing the grenade allowing the safety lever to fly free, releasing the spring-loaded striker to strike the primer. The percussion primer ignites the first fire mixture. The fuze delay element, which burns for 0.7 to 2 seconds, ignition mixture, and grenade starter mixture and filler, are ignited by the preceding component. The pressure sensitive tape is blown off the emission holes from which the colored smoke emits (*Army, 1977b*).

## Rockets

Some 2.36-inch rockets were found during trenching activities at the site. Inert practice 2.36-rockets were also found during the soil removal program.

2.36-inch practice rockets. These rockets are fired from a Bazooka-type launcher at ground targets. The rocket consists of a shell booster, disc, detonator, firing pin, safety pin, igniter trap, and nozzle and fin assembly.

### *Chemical Agent Identification Set (CAIS)*

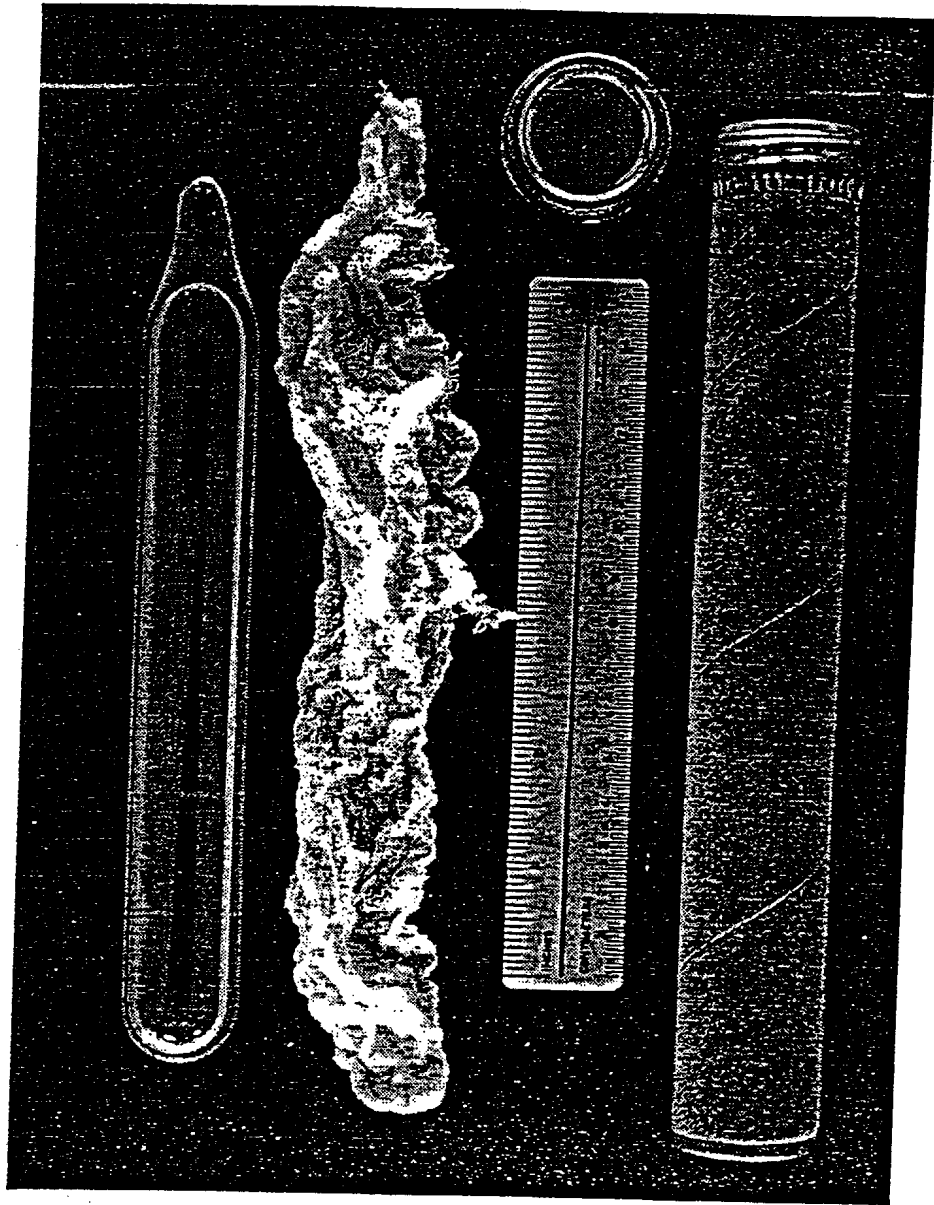
Chemical agent identification sets (CAIS) generally contained a few dozen glass ampoules or bottles of chemical agent packed in a metal shipping container or wooden box. Based on the time period that MRS-2 was reportedly used for chemical warfare training (1940s), it is possible that K941 toxic gas sets (M1) and K951/K952 instructional and detonation war gas identification sets may have been used at the site.

K941 toxic gas sets (M1) - These kits were available from WWII until the late 1950s. These kits contained 24 glass bottles, each containing 3 ½ ounces of mustard (H and HS) or distilled mustard (HD). Bottles were round and had a small plastic/bakelite top. Four bottles were packed in a ½ inch layer of sawdust within a sealed metal can that was 6 ½ inches high. The cans were pressure sealed and had a sardine-type key on the bottom. Six of these metal cans were fitted into a steel shipping cylinder that was 6 5/8 inches in diameter and approximately 38 inches long. The open end of the container was closed by a flanged end cover which was secured by 8 bolts tightened over a 1.8 inch thick lead gasket.

K951/K952 war gas identification instructional and identification detonation sets - M1 K951 war gas identification instructional and identification detonation sets have been found buried at Fort Ord. These contained 48 ampoules - 12 each of 2ml of mustard (H) in 38 ml of chloroform, 2ml lewisite (L) in 38 ml of chloroform, 40ml of phosgene (CG), and 20 ml of chloropicrin (PS) in 20 ml of chloroform. The only difference between the K951 and K952 kits is that the K952 was issued with blasting caps. These were packaged in a separate box.

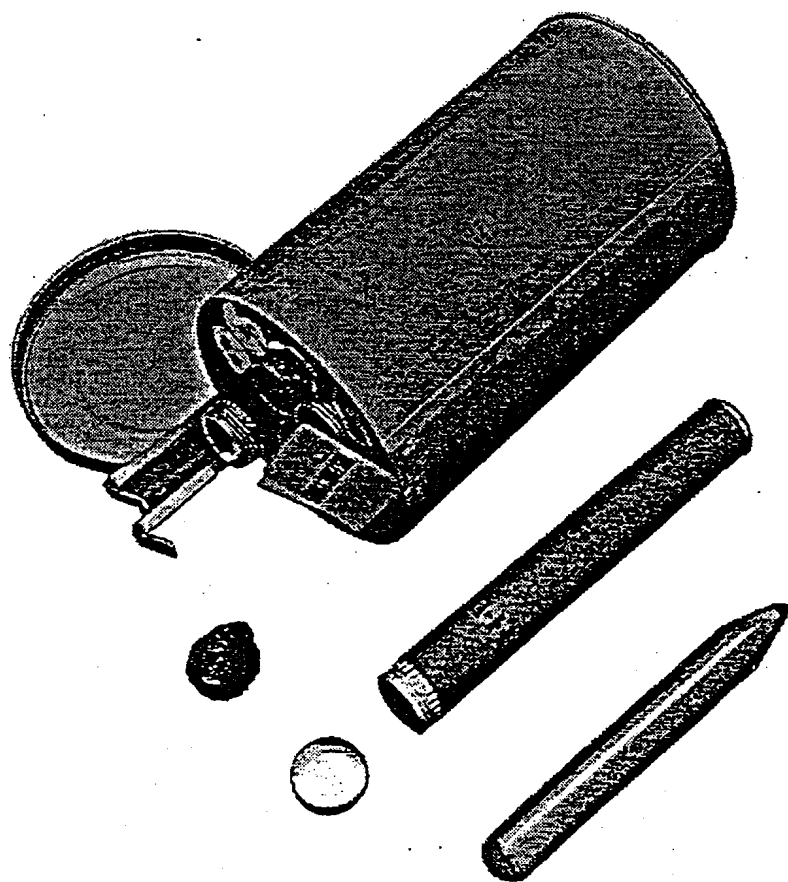
ATTACHMENT G1-3

CAIS DIAGRAMS



095-023Viala.cdr  
11/10/95

Figure 11. K951/952 Ampule, Packing Material, and Cardboard Container



095-030mlube.cdr  
11/07/95

Figure 12. Multiple-Tube Container, Opened