DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 49TH WING (ACC)
HOLLOMAN AIR FORCE BASE, NEW MEXICO

17 April 2017

ADAM M. KUSMAK, GS-13, USAF
Chief, Installation Management Flight (49 CES/CEI)
49th Civil Engineer Squadron (49 CES)
Holloman Air Force Base, NM

Mr. Chuck Hendrickson, Project Manager
RCRA Corrective Action Section (6MM-RC)
U.S. Environmental Protection Agency
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Dear Mr. Hendrickson,

Holloman AFB is pleased to submit the Final Proposed Plan for the SR864 Poorman Range Munitions Response Site, Holloman Air Force Base, NM for your record.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions regarding this submittal, please contact me at (575) 572-6675.

Sincerely,

KUSMAK.ADAM.M.1263331806
Digitally signed by KUSMAK.ADAM.M.1263331806
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USAF, cn=KUSMAK.ADAM.M.1263331806
Date: 2017.04.26 11:09:15 -06'00'

ADAM M. KUSMAK, GS-13, USAF

Attachment:
Proposed Plan for the SR864 Poorman Range Munitions Response Site, Holloman Air Force Base, NM.

cc:

(w/Atch)
Mr. David Strasser
Hazardous Waste Bureau
121 Tijeras Dr. NE, Ste.1000
Albuquerque NM 87102-3400

(w/Atch)
Mr. John Kieling, Chief
Hazardous Waste Bureau
2905 Rodeo Park Dr. East Bldg. 1
Santa Fe NM 87505-6303

(w/o Atch)
Mr. Cornelius Amindyas
Hazardous Waste Bureau
121 Tijeras Dr. NE, Ste. 1000
Albuquerque NM 87102-3400

FINAL PROPOSED PLAN

MILITARY MUNITIONS RESPONSE PROGRAM

SR864 POORMAN RANGE
MUNITIONS RESPONSE SITE

HOLLOMAN AIR FORCE BASE

NEW MEXICO

PERFORMANCE BASED REMEDIATION
Contract Number: FA8903-13-C-0008

Prepared for:

AIR FORCE CIVIL ENGINEER CENTER
2261 Hughes Ave., Suite 155
Joint Base San Antonio Lackland, Texas 78236-9853

Prepared by:

FPM Remediations, Inc.

181 Kenwood Avenue
Oneida, NY 13421

April 2017

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PROPOSED PLAN
SR864 – Poorman Range Munitions Response Site
Holloman Air Force Base, New Mexico

1.0 INTRODUCTION

This Proposed Plan (PP) concerning the SR864 Poorman Range Munitions Response Site (MRS), located at Holloman Air Force Base (AFB), Otero County, New Mexico (**Figure 1**) is submitted for public review and comment. The PP recommends No Further Action (NFA) for both Munitions and Explosives of Concern (MEC) and Munitions Constituents (MC) following completion of a Remedial Investigation (RI) and provides reasons for this preference at MRS.

This document has been prepared by the United States Air Force (USAF), the lead federal agency for site activities, in agreement with the United States Environmental Protection Agency (USEPA), the support agency, and in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 117(a) and Section 300.430(f)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). Under CERCLA and the NCP, it is appropriate for the lead agency to recommend NFA when no unacceptable risks exist under the residential use scenario.

This PP may be modified based on any new information acquired during the 30-day public comment period. The USAF, as lead agency, will make a final decision on the need for additional action following consultation with the USEPA. This decision will be made after reviewing and considering all information submitted during the designated public comment period. Therefore, the public is encouraged to review and comment on all information presented in this document.

Information presented in this document can be found in greater detail in the Comprehensive Site Evaluation (CSE) Phases I and II, RI, and other documents contained in the Administrative Record file for this site. The USAF and USEPA encourage the public to review these documents to gain a better understanding of investigations conducted at this site.

MARK YOUR CALENDAR

PUBLIC COMMENT PERIOD:

5 May, 2017 – 4 June, 2017

The Proposed Plan is available for public review during the 30-day public comment period at the following location:

Alamogordo Public Library,
920 Oregon Ave.
Alamogordo, N.M. 88310
Phone: (575) 439-4140

The USAF will accept written comments on the Proposed Plan during the public comment period. Comment Letters must be postmarked by **June 4, 2017** and should be submitted to:

49th Wing Public Affairs
490 First Street, Building 29, Suite 1500
Holloman AFB, NM 88330

Comments can also be submitted via email to:

49wgpaoffice@holloman.af.mil

For additional questions, comments or concerns please call (575)-572-7381.

PUBLIC MEETING:

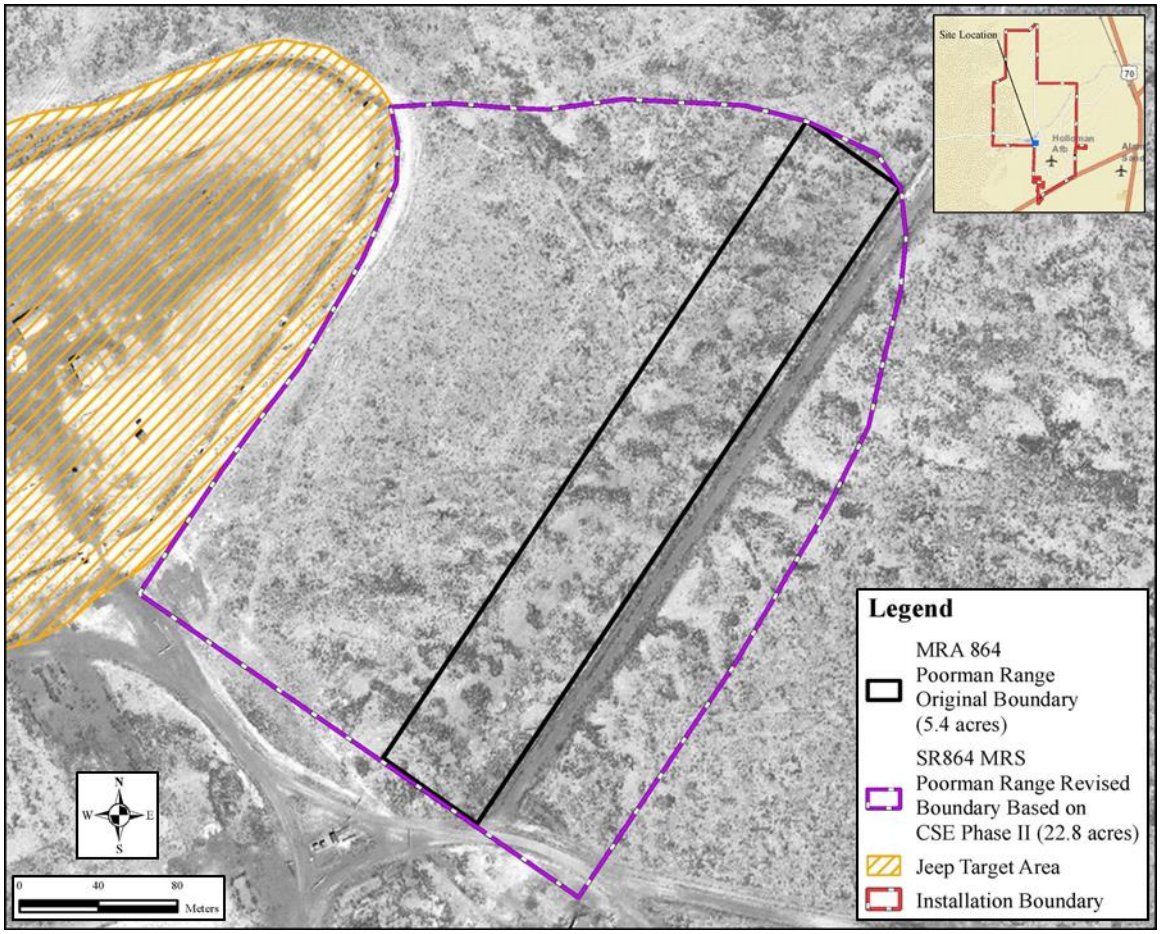
Based on the level of interest, the USAF may hold a public meeting to explain the PP and the reasons for the NFA recommendation for the SR864 Poorman Range MRS and accept oral and written comments. The public meeting will be announced in the Alamogordo Daily News, a newspaper of daily circulation in the city of Alamogordo area and includes Holloman AFB. If scheduled, the meeting will be held at the Alamogordo Public Library.

ADMINISTRATIVE RECORD FILE:

For more information on the SR864 Poorman Range MRS, please see the Administrative Record at the following web address:

http://afcec.publicadmin-record.us.af.mil

Figure 1 SR864 Poorman Range MRS



2.0 SITE HISTORY AND BACKGROUND

Holloman AFB is located in south-central New Mexico, seven miles west of the city of Alamogordo in Otero County. Holloman AFB occupies approximately 50,763 acres of land and is adjacent to the much larger (2.2 million acre) White Sands Missile Range (WSMR). The southern portion of Holloman AFB contains the flight line, composed of a series of runways running north-south, east-west, and northeast southwest. The Main Base is located in the southeast corner of the installation, where Route 70 borders the site. The Main Base contains housing and administrative buildings. The High Speed Test Track (HSTT) runs north-south and is located northwest of the airfield.

The SR864 Poorman Range MRS is 22.80-acre site located southeast of the Jeep Target Area and near the western boundary of Holloman AFB (**Figure 1**). Initially, the site was identified as 5.40-acre Munitions Response Area (MRA) 864 based on aerial photography from as early as 1945 (Shaw Environmental Inc., 2010). The Laboratory of Anthropology Site Record describes this area as a feature located southeast of the Jeep Target Area consisting of 25 gun placement stations. Each firing station is composed of a constellation of seven concrete pads, including one gun mount pad.

The area was used for training using .50 caliber guns and ammunition.

A **CSE Phase II** (HDR Operations and Construction, Inc., 2013) was conducted to determine whether the Poorman Range (MRA 864) warranted further munitions response action. The field activities performed during this study included detector-aided (i.e., White's Electromagnetic DFX 300 metal detector) visual surveys and environmental sampling of surface soils to determine if MC (i.e., metals and explosive constituents) have been released into the environment.

Based on the presence of surface MEC, Munitions Debris (MD), and small arms debris observed beyond the original MRA boundary, the visual survey was extended to the east and west of the MRA. MEC items found during the visual survey included two intact M18 smoke grenades, two intact M116A1 hand grenade simulators, and one intact M115A2 ground burst simulator. MD observed included expended M18 smoke grenades, hand grenade simulators, and artillery simulators. Small arms debris discovered consisted of .50 caliber casings and links near the firing stations, 5.56 millimeter (mm) and 7.62mm blanks. Also observed were scattered clay target debris along the northwestern edge of the MRA and one M16 magazine clip full of 5.56mm blanks. It was concluded that the MEC and MD items as well as 5.56mm and 7.62mm blanks originated from Prime Base Engineer Emergency Force training activities associated with the nearby active Jeep Target Area.

Eighteen surface soil samples were collected and analyzed for lead using X-Ray Fluorescence (XRF). Lead analysis results for surface soil ranged from below the Level of Detection (LOD) (12 milligrams [mg]/kilogram [kg]) to 25 mg/kg. Of the 18 surface soil samples collected, 15 were below the LOD. No samples exceeded the residential human health screening level of 400 mg/kg. Maximum and mean lead concentrations exceeded the ecological soil screening level for only the most sensitive ecological receptor category. The maximum and mean lead concentrations at MRA 864 were within the typical New Mexico lead background range. Therefore, it was concluded that lead does not pose human health and ecological risk at MRA 864.

Eight surface and two subsurface samples were collected and analyzed for Polynuclear Aromatic Hydrocarbon (PAH) analysis. No results exceeded the human health screening level. Concentrations of High Molecular Weight PAHs and Low Molecular Weight PAHs were less than their respective ecological screening benchmarks. Therefore, it was concluded that PAHs do not pose human health and ecological risk at MRA 864.

Based on the presence of surface MEC and MD outside the original MRA boundary, the overall acreage of the Poorman Range MRA increased from 5.40 acres to 22.80 acres. The entire MRA was designated as the SR864 MRS at the conclusion of the CSE Phase II (**Figure 1**). The SR864 MRS obtained a Munitions Response Site Prioritization Protocol (MRSPP) score of 6 and was recommended for further munitions response action.

An **RI** (FPM Remediations, Inc., 2016) was conducted at the 22.80-acre SR864 MRS to characterize the nature and extent of hazards associated with MEC and MC contamination. The RI was completed by performing detector-aided surface clearance and a Digital Geophysical Mapping (DGM) survey of the entire MRS footprint. DGM surveys create images of underground objects and can be used to determine which objects are likely to be munitions items. This was followed by intrusive investigation of all DGM anomalies, and MC sampling.

Two MEC items (two M18 smoke grenades) were found and destroyed and 77 pounds (lbs) of MD (smoke grenade pieces) and

small arms debris were removed from the MRS during the 100 percent coverage surface clearance.

The 100 percent coverage DGM survey identified 994 discrete subsurface anomalies above the site-specific threshold (7 millivolts) and 11 high anomaly density areas within the MRS.

All subsurface anomalies were intrusively investigated, meaning they were excavated. No MEC was found and a total of 2.5 lbs of MD was recovered during intrusive activities. Identified MD included M18 smoke grenade pieces, two grenade spoons, and one trip flare bracket. Small arm debris (23.5 lbs) found consisted of 5.56 and 7.62mm, .50, .45, and .30 caliber bullet casings and blanks. In addition, 3,275 lbs of cultural (e.g., construction) debris was removed from the MRS during the subsurface clearance.

Three soil samples were collected during the RI, two samples at the confirmed MEC find locations and one sample at the location where the two MEC items were destroyed by detonation. The analytical results were compared against the USEPA residential Regional Screening Levels, the New Mexico Environment Department residential Soil Screening Levels and the Los Alamos National Laboratory ecological benchmarks.

Explosive constituents were not detected in any of the soil samples. Metals were detected at concentrations below their respective Basewide background concentrations, and well below their respective human health and ecological screening levels. Based on MC sampling results, it was concluded that there are no human health and ecological risks related to MC, and that further human health and ecological risk evaluation of MC in soil at the SR864 MRS was not necessary.

Based on the RI results, the 22.80-acre SR864 MRS obtained an MRSPP score of 8 and was recommended for NFA for both MEC and MC.

3.0 SITE CHARACTERISTICS

The SR864 MRS is currently located on the active base property and consists of relatively flat topography. No wetlands or surface water are associated with the site. The soils at SR864 consist of the Yesum Sandy Loam; vegetation is consistent with desert scrubland.

No buildings are located within the MRS. There are 101 buildings within a two-mile radius of the site including numerous structures within the adjacent active Jeep Target Area.

The SR864 Poorman Range MRS area is currently unused and according to Holloman AFB Installation Development and Design (Holloman AFB, 2011), the long-term planned land use for this site is open space.

There is no fencing or other controls associated with SR864, however, access to Holloman AFB requires admittance through the security gate and there is a fence around the installation. Therefore, access to this site is restricted for the general public, but is open to Base personnel, contractors, Base residents and visitors.

4.0 SCOPE AND ROLE OF THE ACTION

The recommended NFA response will involve no further investigation or cleanup at the site with respect to MEC or MC.

5.0 SUMMARY OF SITE RISKS

A baseline risk assessment which describes the nature and extent of the risks posed to human health and the environment by the contamination of the site was not performed as part of the RI. Since surface and subsurface clearance was performed across the entire MRS, and since all MEC items discovered during the RI were destroyed, there is no explosive hazard at the MRS associated with MEC. In addition, based on

RI MC soil sampling results, there are no human health and ecological risks associated with MC (metals and explosive constituents) at the SR864 MRS, as levels of MCs detected were lower than the residential screening level and were present at levels well within New Mexico background levels.

6.0 DESCRIPTION OF THE PREFERRED REMEDY

The USAF recommends NFA for the SR864 MRS based on the RI results. This NFA designation requires no land-use controls or restrictions, and no capital, operational, or maintenance costs. An NFA recommendation for the SR864 MRS is supported by the following facts:

- All MEC was removed from the MRS during the 100% surface and subsurface clearance of the site during the RI.
- Based on MC (metals and explosive constituents) sampling results there are no unacceptable risks to human health and the environment posed by the very low levels of contamination at SR864.

7.0 COMMUNITY PARTICIPATION

The USAF and USEPA will provide existing information regarding the hazard exposure reduction at SR864 to the public through public meetings, the Administrative Record file for the site, and announcements published in the Alamogordo Daily News newspaper, City of Alamogordo, New Mexico. The USAF and the USEPA encourage the public to gain a more comprehensive understanding of the site and the remedial activities that have been conducted at the site.

The dates for the public comment period, details regarding the announcement and location of the public meeting, and the locations of the Administrative Record files, are provided on the front page of this PP.

8.0 REFERENCES

EPA 540-R-98-031, Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents; USEPA, July 1999.

FPM Remediations, Inc., Final Remedial Investigation Report, XU854 Able 51 Area Munitions Response Site (MRS), SR864 Poorman Range MRS, ML865 Ballistics Rain Field MRS, and RR869a Debris Field MRS, Holloman AFB, New Mexico, May 2016.

Holloman AFB Installation Development and Design, 2011.

HDR Operations and Construction, Inc, Final Comprehensive Site Evaluation Phase II Report, Holloman AFB, New Mexico, September 2013. HDR for United States Army Corps of Engineers (USACE) - Omaha District.

Shaw Environmental Inc., Final Modified Comprehensive Site Evaluation Phase I Report, Holloman AFB, New Mexico, May 2010. Shaw for USACE - Omaha District.

9.0 GLOSSARY AND TERMS

Administrative Record - The body of documents that "forms the basis" for the selection of a particular response at a site. Documents that are included are relevant documents that were relied upon in selecting the response action as well as relevant documents that were considered but were ultimately rejected. Until the Administrative Record is certified, it shall be referred to as the "Administrative Record file."

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Congress enacted CERCLA (42 USC § 9620 et seq.), commonly known as the Superfund act, on 11 December 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous

substances that may endanger public health or the environment.

Digital Geophysical Mapping (DGM) - Techniques that utilize electronic instruments to detect, measure, and map the physical characteristics of buried source items (i.e., anomalies).

Explosive Hazard – A condition where danger exists because explosives are present that may react (e.g., detonate, deflagrate) in a mishap with potential unacceptable effects (e.g., death, injury, damage) to people, property, operational capability, or the environment.

Intrusive Investigation - An activity that involves or results in the penetration of the ground surface to identify and, when necessary to excavate anomalies. An activity that greatly increases the risk of exposure to MEC in an area known or suspected to contain MEC.

Military Munitions – Military munitions means all ammunition products and components produced for or used by the armed forces for national defense and security, including confined gaseous, liquid, and solid propellants; explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives, and chemical warfare agents; chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges; and devices and components thereof.

Munitions Constituents (MC) – Any materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordinance or munitions.

Munitions and Explosives of Concern (MEC) – Specific categories of military munitions that may pose unique explosives safety risks, including Unexploded Ordnance, Discarded Military Munitions, or Munitions Constituents present in high enough concentrations to pose an explosive hazard.

Munitions Debris (MD) – Remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization, or disposal.

Munitions Response – Response actions, including investigation, removal actions and remedial actions (RAs) to address the explosives safety, human health, or environmental risks presented by unexploded ordnance, discarded military munitions, or munitions constituents, or to support a determination that no removal or remedial action is required.

Munitions Response Site (MRS) - A discrete location within a MR Area that is known to require a MR.

National Oil and Hazardous Substance Pollution Contingency Plan (NCP) - Revised in 1990, the NCP provides the regulatory framework for responses under CERCLA. The NCP designates the DoD as the removal response authority for ordnance and explosives hazards.

Range – A designated land or water area that is set aside, managed, and used for range activities by the DoD. The term includes firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, electronic scoring sites, buffer zones with restricted access, and exclusionary areas. The term also includes airspace areas designated for military use.

Remedial Action - Those actions consistent with a permanent remedy taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not

migrate to cause substantial danger to present or future public health, welfare, or the environment.

Remedial Investigation (RI) - The RI process can be thought of as the site characterization phase in which the nature and extent of contamination is determined and potential risks posed to human health and the environment are evaluated. The RI gathers necessary information to develop and evaluate remedial alternatives for the site. Per 40 CFR 300.430(d), the purpose of the RI is to "collect data necessary to adequately characterize the site for the purpose of developing and evaluating effective remedial alternatives."

Unexploded Ordnance (UXO) – Military munitions that: (a) have been primed, fuzed, armed, or otherwise prepared for action, (b) have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material, and (c) remain unexploded whether by malfunction, design, or any other cause.

USE THIS SPACE TO WRITE YOUR COMMENTS

Your input on the Proposed Plan for the SR864 Poorman Range Munitions Response Site (MRS) at Holloman AFB is important. Comments provided by the public are valuable in helping the Air Force and United States Environmental Protection Agency select a final cleanup remedy for the site.

You may use the space below to write your comments and mail to the address given below. Comments must be postmarked by June 4, 2017. If you have additional questions, comments or concerns please call 575-572-7381. Those with electronic communications capabilities may submit their comments to the Air Force at the following e-mail address: 49wgpaoffice@holloman.af.mil.

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Name: _____

Address: _____

City: _____

State: _____ Zip: _____

*Telephone: (_____)_____

*E-mail: _____

*Optional

Please send all comments to the following address:

49th Wing Public Affairs
490 First Street, Building 29,
Suite 1500
Holloman AFB, NM 88330