

**Technical Memorandum
MEC Remedial Action
Track 3 Impact Area MRA
MRS-Ranges 43-48 South
Former Fort Ord, California**

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Prepared For:



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ACRONYMS AND ABBREVIATIONS

AR	Administrative Record
Army	United States Department of the Army
BCT	Base Cleanup Team
BLM	Bureau of Land Management
BRAC	Base Realignment and Closure
CMC	Central Maritime Chaparral
DGM	Digital Geophysical Mapping
DMM	Discarded Military Munitions
ft.	Feet
GPS	Global Positioning System
HE	High Explosive
HEAT	High Explosive Antitank
HMP	Habitat Management Plan
IA	Interim Action
ITSI	Innovative Technical Solutions, Inc.
KEMRON	KEMRON Environmental Services, Inc.
LAW	Light Anti-Tank Weapons
m	Meter / Meters
MACTEC	MACTEC Engineering and Consulting, Inc.
MD	Munitions Debris
MEC	Munitions and Explosives of Concern
MR	Munitions Response
MRA	Munitions Response Area
MRS	Munitions Response Site
NCA	Non-Completed Area
OE	Ordnance and Explosives
QA	Quality Assurance
QC	Quality Control
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RRD	Range-Related Debris
SCA	Special Case Area
TCRA	Time Critical Removal Action
TM	Technical Memorandum
USACE	U.S. Army Corps of Engineers
UXO	Unexploded Ordnance
UXOQCS	UXO Quality Control Specialist
WGBA	Watkins Gate Burn Area
WP	White Phosphorous

1.0 INTRODUCTION

This Technical Memorandum (TM) was prepared to evaluate Munitions Response Site (MRS)-Ranges 43-48 South in accordance with the Fort Ord Track 3 process. MRS-Ranges 43-48 South consists of the southern portion of the Interim Action (IA) site, MRS-Ranges 43-48. An interim remedial action was conducted at MRS-Ranges 43-48 in 2003-2005 based on the *Record of Decision Interim Action for Ordnance and Explosives at Ranges 43-48, Range 30A, and Site OE-16 Former Fort Ord, California* (IA MR ROD; U.S. Department of the Army [Army], 2002). The interim remedial action included vegetation clearance by prescribed burning, surface and subsurface Munitions and Explosives of Concern (MEC) removal, and detonation of MEC using engineering controls. The final report on the completed IA at MRS-Ranges 43-48 identified several areas within the MRS where subsurface removal was not completed, including areas of high metallic clutter (Parsons, 2007).

The southern portion of MRS-Ranges 43-48 (hereafter called MRS-Ranges 43-48 South) was subsequently evaluated in the *Track 3 Impact Area Munitions Response Area (MRA) Remedial Investigation/Feasibility Study (RI/FS)* (Track 3 Impact Area MRA RI/FS; MACTEC Engineering and Consulting, Inc. [MACTEC], 2007). The selected remedy for the Track 3 Impact Area MRA is technology-aided surface MEC remediation, with subsurface MEC remediation in selected areas, and land use controls (*Final Record of Decision Impact Area Munitions Response Area Track 3 Munitions Response Site Former Fort Ord, California* [Track 3 ROD; Army, 2008]). Surface MEC removal was completed in MRS-Ranges 43-48 South during the IA. MRS-Ranges 43-48 South includes areas where subsurface MEC removal was not completed during the IA. The Track 3 ROD provides that surface removal areas will be evaluated, and a TM will be prepared to provide an evaluation of the work completed to date and if necessary, describe additional subsurface MEC removal recommended based on the evaluation.

Potential for soil contamination at MRS-Ranges 43-48 South has been addressed through the Site 39 program at Fort Ord as described in the *Final Remedial Action Completion Report Site 39 Inland Ranges Habitat Reserve Former Fort Ord, California* (Gilbane, 2014) and is not discussed in this paper.

1.1 Site Location

MRS-Ranges 43-48 is 499 acres located in the north-central portion of the historical Impact Area at the former Fort Ord. The historical Impact Area is an 8,000-acre area covering the southwest portion of the

base. The Impact Area served as the base's primary target area, containing numerous firing ranges that were used for weapons training activities involving munitions and explosives.

The northern portion of MRS-Ranges 43-48 was transferred in 2009 to the Fort Ord Reuse Authority (FORA) as part of the Environmental Services Cooperative Agreement (ESCA).

The southern portion of MRS-Ranges 43-48 is the focus of this TM and is referred to herein as MRS-Ranges 43-48 South (approximately 266 acres) and is illustrated on [Figure 1](#). Throughout this TM, references are made to activities that took place over MRS-Ranges 43-48. As appropriate, results of these activities will be discussed specific to MRS-Ranges 43-48 South only. An overview of MRS-Ranges 43-48 South is shown on [Figure 2](#).

1.2 *Topography, Geology, and Natural Resources*

MRS-Ranges 43-48 South has an area of approximately 266 acres and is located within the Impact Area MRA. The topography of MRS-Ranges 43-48 South consists primarily of relatively flat ground and gently rolling hills, vegetated with maritime chaparral, grassland, and oak woodlands. Elevations range from approximately 380 feet (ft.) to 530 ft. above mean sea level. The surficial geology is primarily Aromas Sandstone and Paso Robles Formation with limited alluvial deposits to consolidated sands/sandstone.

The Impact Area MRA is designated as habitat reserve under the *Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California* (HMP; U.S. Army Corps of Engineers [USACE], 1997) and prescribed burning is the preferred method of vegetation removal to support munitions removal. Central maritime chaparral (CMC), the predominant vegetation, is a vegetation type that benefits from periodic burning. MRS-Ranges 43-48 South was part of a larger prescribed burn event that took place in late 2003. Since that event, the vegetation has grown back significantly, providing an impediment to accessing MRS-Ranges 43-48 South.

The habitat types that occupy the MRS contain some of the special-status flora and fauna species identified in the HMP (USACE, 1997). Special-status species that can be encountered within coastal scrub, grasslands, or CMC are sand gilia (Federal Endangered, State Threatened), Monterey spineflower (Federal Threatened), Seaside birdsbeak (State Endangered), and sandmat Manzanita (Tetra Tech Inc., 2011).

Black legless lizards (California species of special concern) may be encountered in any areas with sandy soils.

1.3 *Current and Future Site Use*

Access to MRS-Ranges 43-48 South is currently restricted to authorized personnel only. Authorized personnel include workers conducting environmental remediation, habitat management, and site management, including Bureau of Land Management (BLM) personnel providing invasive species control under a services agreement with the Army. The Impact Area MRA is fenced, warning signs are posted, and access is controlled by the Army. The perimeter of the historical Impact Area is patrolled to detect and prevent trespassing. Existing access deterrents such as the 4-strand barbed wire fence posted with warning signs approximately every 500 ft. discourage, but do not completely prevent, entry into the area. Although the fence configuration can be very successful at preventing unintentional trespass, no fence system can prevent intentional trespass. Detected incidents of trespassing and evidence of trespass into the Impact Area and other restricted Munitions Response (MR) sites are tracked as part of the *Munitions Response Site Security Program Former Fort Ord, California* (MRS Security Program; Army, 2016a), currently being implemented by the Army.

Future use of MRS-Ranges 43-48 South is as habitat reserve. Habitat reserve areas support special status plant and animal species that require implementation of mitigation measures during Army cleanup activities. These measures are identified in the HMP (USACE, 1997) and *Programmatic Biological Opinion* (U.S. Fish and Wildlife Service [USFWS], 2017) to ensure compliance with the Endangered Species Act and to minimize potential adverse impacts to listed species. The HMP (USACE, 1997) outlines management guidelines for future landowners of the Natural Resource Management Area (NRMA), which includes MRS-Ranges 43-48 South, to conduct habitat restoration, enhancement and monitoring, access control, and controlled burning.

Based on information provided by BLM and the Track 3 Impact Area MRA RI/FS (MACTEC, 2007), the reuse of the area as a habitat reserve is anticipated to include a variety of activities including:

- Road and trail management and maintenance;
- Habitat enhancement, including prescribed burning;
- Fuel break construction and management;
- Use of administrative areas;
- Habitat monitoring and educational programs;
- Species-specific monitoring and habitat enhancement; and

- Recreational access on established routes.

The Impact Area MRA, including MRS-Ranges 43-48 South, will not be transferred to BLM until MEC remedial actions have been completed. Prior to property transfer and during implementation of the remedial actions, the Army is providing munitions recognition and safety training as needed, unexploded ordnance (UXO)-qualified personnel support for intrusive work or UXO escort as needed, and site security. Site security measures include maintenance of the existing perimeter fence and monitoring for the evidence of trespass. These activities are reported to the regulatory agencies as part of the MRS Security Program (Army, 2016a). The selected remedy includes Land Use Controls (LUC) to support future management of the property as a habitat reserve. A detailed Land Use Control Implementation Plan (LUCIP) will be prepared prior to the property being transferred. Additional discussion is available in the *Final Remedial Design (RD) / Remedial Action (RA) Work Plan Update Track 3 Impact Area Munitions Response Area (MRA) Munitions and Explosives of Concern (MEC) Removal Former Fort Ord, California (RD/RA WP Update; KEMRON Environmental Services, Inc. [KEMRON], 2018).*

2.0 SUMMARY OF MUNITIONS RESPONSES

This section presents a summary of the range uses and the munitions responses that have taken place within MRS-Ranges 43-48 South. The munitions responses that have taken place are shown in [Figure 3](#). This evaluation includes a portion of Watkins Gate Burn Area (WGBA) associated with Range 48, immediately adjacent to MRS-Ranges 43-48 South. MEC removals were conducted in WGBA and documented in the *Final Watkins Gate Burn Area MEC Remedial Action, Technical Memorandum, Former Fort Ord, California* (WGBA TM) (KEMRON, 2015). While no additional work was required in WGBA, the TM stated that the portion along Evolution Rd that is part of the Range 48 fan will be subject to evaluation as part of a future evaluation of that area. Details regarding previous munitions responses conducted in the portion of WGBA that is within the Range 48 fan area are also provided in this section.

2.1 Range Use and Associated Munitions Types

As presented in the *Final MRS-Ranges 43-48 Interim Action Technical Information Paper* (IA Technical Information Paper; Parsons, 2007) and the Track 3 Impact Area MRA RI/FS (MACTEC, 2007), MRS-Ranges 43–48 South contains portions of Ranges 43, 44, 45, 46, 47, and 48 where training activities involving live ammunition and ordnance occurred. [Figure 4](#) shows the known fans associated with these ranges. [Table 2-1](#) lists the known prior uses of these ranges. [Appendix A](#) presents a more detailed list of the different munitions and the ranges on which they have been found. Further details concerning the specific items that have been recovered during different phases of work are included as [Appendix B](#).

Table 2-1
 Previous Use of Ranges

Range	Range Use
42	Mortar Range (Long Range), Mortar Complex
43	Platoon live-fire course, mortar range
44	Antitank weapons (recoilless rifle rocket launcher, Dragon missile rocket launcher) range
45	SABOT/14.5 subcaliber training; grenade launcher range
46	Small arms range
47	40mm grenade range
48	Weapons familiarization; sniper, mortar, and machine gun range
Unknown	Range is visible on historical aerial imagery, but range usage is not documented

The types of munitions that were used at these ranges are both penetrating and non-penetrating. Munitions associated with direct-fire weapons would be expected to be found on the surface, or relatively shallow in the subsurface due to their direct-fire profiles. Mortar projectiles, however, an indirect fire munition, would be expected to potentially penetrate below the shallow subsurface.

2.2 Munitions Response Activities Prior to IA MR ROD

This subsection describes the work that took place within MRS-Ranges 43-48 South prior to the IA MR ROD (Army, 2002). Most of the activities described below were not performed exclusively within MRS-Ranges 43-48 South. The information has been summarized to describe the activities within MRS-Ranges 43-48 South.

2.2.1 Grid Sampling

As part of the initial evaluation to determine the scope of future MR in the Impact Area, grid sampling was performed in 1997 and 1998 within selected areas of the Impact Area to collect data regarding the type, depth, and distribution of military munitions present. Grid sampling is a method whereby 100 percent of the geophysical anomalies identified within a designated grid (typically 100- by 100-foot) are investigated.

Sampling grids were investigated to a depth of four feet (all anomalies detected were investigated to a depth of four feet and deeper anomalies were investigated as directed by a USACE Ordnance and Explosives Safety Specialist [OESS]). All sample grids were searched using Schonstedt Model GA-52/Cx magnetometers (USA Environmental, Inc., 2000).

Only one of these sample grids was located within MRS-Ranges 43-48 South. It was positioned in the far northern part of the eastern limb of the MRS and is shown in green on [Figure 3](#). No munitions-related material was found in the grid.

2.2.2 Fuel-Break Subsurface MEC Removal

Subsurface MEC removal was conducted in fuel breaks within and near the Impact Area in 1998. Prior to conducting MEC removal within the fuel breaks, the vegetation was mechanically and/or manually removed. Brush cutting was conducted by UXO-qualified personnel or by laborers escorted by UXO-qualified personnel. The objective of the fuel break subsurface MEC removal was to remove all MEC and Munitions Debris (MD) to a depth of at least four feet (all anomalies detected were investigated to a depth of four feet and deeper anomalies were investigated as directed by a USACE OESS). These fuel breaks were comprised of contiguous 30 by 110 ft. grids and were searched using Schonstedt Model GA-52/Cx magnetometers. Details of MEC and MD items found during this munitions response which included fuel breaks adjacent to MRS-Ranges 43-48 South are included in the *Final 4' OE Removal After Action Report*

Inland Range Contract Former Fort Ord, California Former Fort Ord Fuel Breaks (USA Environmental, Inc., 2001).

Quality control (QC) components of this action overseen by the UXO Quality Control Specialist (UXOQCS) consisted of daily instrument checks, audits of work plan compliance by the field teams and a minimum 10 percent re-sweep of each grid by the UXOQCS. No MEC finds or other QC failures were reported.

Quality Assurance (QA) components of this action overseen by the USACE OESS consisted of daily field team checks and a partial re-sweep of each completed grid. All grids passed QA checks.

2.2.3 MRS-Ranges 43-48 - Time Critical Removal Action

A Time Critical Removal Action (TCRA) was performed over MRS-Ranges 43-48 from August to December 2001 to remove MEC from the surface of the MRS, to reduce the imminent threat to the public posed by the presence of MEC on the ground surface. MD and range-related debris (RRD) were also removed from the ground surface. No vegetation clearance was performed and the removal was limited to open and accessible areas. Approximately 35 percent of MRS-Ranges 43-48 acreage was covered. Surface MEC removal operations were performed without the use of geophysical equipment; instead, personnel visually located MEC in open and accessible areas. MEC removed during this operation included projectiles ranging in size from 37mm to 155mm, subcaliber practice items, hand grenades, and various rockets and missiles. Further detail is provided in the *Final Technical Information Paper Surface Removal Ordnance and Explosives (OE) Site 43-48, Former Fort Ord, California* (Parsons, 2002). QA components of this action overseen by the USACE OESS consisted of a visual inspection following the QC inspection. If three UXO or UXO-like items were found, the grid was reswept. No negative finding was reported in the *Final Technical Information Paper Surface Removal Ordnance and Explosives (OE) Site 43-48, Former Fort Ord, California* (Parsons, 2002). The area of the TCRA was subsequently subjected to a surface removal as part of the interim action.

The *Technical Memorandum Ranges 43 Through Range 48 Surface Clearance, Former Fort Ord, California* (Parsons, 2001) described the QC procedures implemented for this work, including 10% visual inspection.

2.3 MRS-Ranges 43-48 – Interim Action

Based on the results of previous work completed within the MRS-Ranges 43-48 boundary, it was determined that an interim remedial action was required. MRS-Ranges 43-48 was evaluated in the *Final Interim Action Ordnance and Explosives Remedial Investigation/Feasibility Study for Ranges 43-48, Range 30A, Site OE-16, Former Fort Ord, California* (Harding ESE, 2002). The rationale for the selected remedies are documented in the IA MR ROD (Army, 2002). The selected remedy for the IA sites was:

1) vegetation clearance by prescribed burning; 2) MEC remedial action via surface and subsurface MEC removal; and 3) detonation of MEC with engineering controls.

The IA conducted at MRS Ranges 43-48 included the following activities:

- Preparatory actions such as removing surface debris where safe to do so; vegetation cutting in containment lines; range target identification; limited target removal and path clearance where safe to do so;
- Prescribed burning to clear vegetation;
- Grid installation;
- Visual surface removal to identify and remove any UXO and Discarded Military Munitions (DMM); RRD and MD two inches or larger were also removed;
- Additional target removal;
- Geophysical walk through to identify the geophysical instrument that should be used for digital survey;
- Geophysical transect sampling to identify the general site conditions;
- Seeding of quality control/quality assurance (QC/QA) items;
- Analog removal using Schonstedt GA-52Cx magnetometers;
- Digital geophysical mapping (DGM) using an EM-61 MK2;
- Data processing;
- Reacquisition and excavation of subsurface DGM anomalies;
- Sifting of soil to remove MEC in 14 acres of Range 45 and subsurface MEC removal from the bottom of the excavated area; and
- QC and QA inspections.

A prescribed burn was conducted in October 2003. Surface and subsurface removals were conducted on the 499-acre MRS-Ranges 43-48 from November 2003 to December 2005. Surface MEC removal was completed over the entire MRS. Utilizing data from geophysical transect sampling, priorities for the subsurface removal field work were developed. Following analog subsurface MEC removal, DGM and intrusive investigation of identified geophysical anomalies were conducted. Subsurface removal was

conducted to the maximum capability of the technologies and instruments used over those portions of the MRS that could be completed within the environmental, funding and time constraints of the contract.

Areas within MRS-Ranges 43-48 South where subsurface MEC removal was not completed were identified as Special Case Areas (SCAs) and non-completed areas (NCAs) and are shown on [Figure 5](#). These areas are discussed further in the IA Technical Information Paper (Parsons, 2007). [Figure 6](#) displays locations of MEC removed to date within Ranges 43-48 South. The majority of the displayed items were recovered during the IA. Densities of MD removed are shown in [Figure 7](#).

2.3.1 MEC Items Removed

The following paragraphs provide a summary of MEC items recovered from MRS-Ranges 43-48 (499 acres). During the IA surface removal across the entirety of Ranges 43-48, over 3,700 subcaliber practice rockets and almost 600 High Explosive (HE) munitions were removed, including: (a) 57mm M306 series, HE; (b) 60mm M49 series HE mortars; (c) 75mm M48 projectiles; (d) 40mm M381 HE projectiles; (e) 66mm M72 rockets light anti-tank weapons (LAW); (f) missiles; (g) hand grenades; (h) illumination signals; and (i) ordnance components (LAW rocket fuzes, detonators, bursters, and miscellaneous energetic ordnance components that could not be associated with positively identified ordnance items).

During the analog subsurface removal, over 3,000 MEC items were identified and removed, including 40mm HE projectiles, 37mm low explosive projectiles, 81mm and 60mm HE mortars, signals, and fuzes.

During sifting operations at Range 45, 1,086 MEC items were identified and removed, including 40mm HE projectiles, 37mm HE and low explosive projectiles, 81mm and 60mm HE mortars, 75mm HE projectiles, 57mm HE projectiles, signals, and fuzes.

An additional 440 MEC items were identified as a result of the DGM and anomaly excavations. MEC items identified included 60mm and 81mm HE mortars, 40mm projectiles, both HE and practice, 57mm HE projectiles, flares, and fuzes.

[Appendix B](#) lists MEC items found and removed to date at MRS-Ranges 43-48 South. [Figure 6](#) shows MEC items by type found and removed to date at MRS-Ranges 43-48 South. [Figure 7](#) shows MD weights removed to date at MRS-Ranges 43-48 South.

2.3.2 Field Procedures

Surface Removal

The surface removal work was primarily carried out by sweeper personnel. Each surface removal team consisted of 18 sweepers (non-UXO personnel who received Hazardous Waste Operations and Emergency

Response and MEC familiarization and safety training), three UXO technicians and one UXO supervisor. The sweepers formed a moving line, with personnel spaced no more than 5 feet apart, working on 1000 ft. x 1000 ft. grids. This activity was primarily visual in nature, as the sweepers did not utilize metal detectors. However, when the UXO supervisor determined that the surface was obscured by burnt vegetation, thick layers of ash or other debris, UXO technicians used Schonstedt GA-52Cx magnetometers to locate items. The QC for this action consisted primarily of observation by the UXO personnel and the Global Positioning System (GPS) recording of the path walked by each team (to ensure complete coverage). The surface removal team moved down the grid in an approximately 100-foot-wide line formation using the grid stakes as the initial lane boundary and handheld GPSs to help guide them. The person at the end of the line opposite the grid stakes marked the extent of the sweep lane with flags, which were then used to guide the team's pass back up the grid. The surface removal team continued making passes up and down the grid until it was completed. To minimize the potential for unswept areas, the surface removal teams carried a GPS that recorded where the teams walked. Track line maps were then generated from the data collected with the GPS, and they were used to identify any areas not covered by the surface removal team. QC re-survey of surface removal grids was not required because the planned follow-on actions included subsurface removals. The grids that did not receive subsurface clearance, (i.e., the SCAs and NCAs as illustrated by [Figure 5](#)) were given a QC status of To Be Determined.

Geophysical Transects

Geophysical transect sampling (using the EM61-MK2) was conducted after the prescribed burn and surface clearance, but before both the analog subsurface removal and DGM-based subsurface removal operations were implemented on MRS-Ranges 43-48. The transect sampling took place along parallel paths, spaced approximately 100 feet apart, through the MRS. The purpose of this effort was to provide an indication of the level of ordnance contamination that could be expected in the planned subsurface remediation work within the MRS. The anomaly density map resulting from this work within MRS- Ranges 43-48 South is illustrated by [Figure 8](#).

Analog Subsurface Removal

From December 2003 to July 2005, 1,261 grids on 274.1 acres received analog removal to depth, with 1,251 grids completed on 271.8 acres of MRS-Ranges 43-48. An additional 73 grids received analog removal to depth in the approximately 14-acre Range 45 following sifting. The geophysical detection instrument used for the analog removal was the Schonstedt GA-52Cx magnetometer. The UXO teams laid out ropes on established 100 ft. x 100 ft. grids, establishing 3 ft. wide search lanes. As anomalies were detected, they

were excavated to depth. Excavations that were too deep or too large for manual excavation were resolved by a backhoe-equipped UXO team. The teams removed all detected ferrous and all visible, nonferrous MD and RRD that were 2 inches, or larger, in any dimension. Suspected MEC were either blown in place or moved to a consolidated shot location for detonation. All MD and RRD removed from each grid was inspected for explosive hazards, recorded by weight per grid and then removed from the grid.

Digital Subsurface Removal

From July 2004 to November 2005, DGM and anomaly excavation operations were conducted over 1,249 grids covering 272.4 acres on MRS-Ranges 43-48. The work on many of the grids located on Range 45 took place from April 2005 to November 2005, after the completion of sifting operations and analog MEC removal. All DGM and anomaly excavation work on a given grid occurred following the analog work. The Geonics EM61 MK2 was the geophysical instrument used for this phase of the work. Most of the work was accomplished using the towed array system, while a single, man-pulled unit was used in more logistically-challenged areas. All DGM was performed using a 2 ft. line separation, at a sampling rate of 10 Hz. The data were downloaded, processed and interpreted as per the work plan. Anomaly selection was based on a 3-millivolt threshold, as measured by Channel 3 of the instrument response. Anomalies were reacquired using GPS and the EM61 MK2. A 3-ft. search radius around each flagged location was investigated by a UXO team. Handling and disposal of discovered items followed the same procedures as were used during the analog work.

Range 45 Sifting and Follow-on Subsurface Removal

Range 45, located in the north-central portion of MRS-Ranges 43-48, was known to have been used for firing HE 40mm grenades. Some types of these items have an all-ways-acting (sensitive) fuze and are recognized as being especially dangerous to unprotected personnel. In addition, the 14-acre area of Range 45 was saturated with large amounts of metallic clutter. The removal solution implemented in this area involved the scraping and stockpiling of the top 2 feet of soil over a 14-acre area. The Range 45 area was within a parcel designated for future development. The stockpiled soil was then sifted to remove MEC and other debris. The surface area exposed after the scraping was then subjected to analog and digital subsurface removal actions, in the manner described above. Following completion of these removal actions, the sifted soil was replaced in the excavation area.

2.3.3 Quality Control and Quality Assurance

QC/QA measures implemented during the IA work within MRS-Ranges 43-48 included a 10 percent re-sweep of the grids where analog removal was conducted, re-mapping of selected grids where DGM removal

was carried out, excavation of anomalies detected during the digital re-mapping, field audits of the analog and digital removal processes, instrument functionality checks (analog and digital) and post-removal checks of the backhoe excavations using geophysical instruments to ensure completeness of the removal. The QC process also included daily audits of the data generated during the various removal operations. During the QC inspections, if UXO, DMM, RRD or MD that was large enough to represent a 37mm projectile (or larger) was encountered, the QC inspectors failed the grid in which the item was found. No items constituting a failure were discovered during the 10 percent re-sweep of the analog grids located within MRS-Ranges 43-48 South. No QC failures were noted during DGM re-mapping.

Additional QC measures included the implementation of a blind seeding program. The QC items buried included MKII practice hand grenades, rifle grenades, various-sized projectiles, 3-inch MKI practice mortars, and 35mm-subcalibers and 2.36-inch rockets. The most commonly seeded item was a simulated 37mm projectile. For the analog work within MRS-Ranges 43-48 South, 41 inert ordnance items were planted at various locations and depths. Thirty-eight were recovered by the analog removal process. Of the three non-recovered items, one was determined to be non-detectable and two were missed. With respect to the digital work within MRS-Ranges 43-48 South, 44 seed items were used and 41 were recovered. Of the three non-recovered items, two were non-detectable and one was missed. Non-conformance reports were completed for missed seeds that were deemed detectable.

The USACE OESS conducted analog QA of the “Range 45 Grids,” “the Range 45 Pad Decon,” and the “Ranges 43-48 OE Removal.” A Schonstedt Model GA52Cx was used to survey 10 percent of 1,242 grids and no UXO, DMM, or MEC-like items (MD that retains some visual characteristic of MEC) were located. QA measures carried out by the USACE geophysicist included the placement of three seed items in the MRS, all of which were recovered. In addition, the USACE geophysicist carried out a limited amount of re-mapping DGM and anomaly selection. The geophysical re-mapping effort and subsequent anomaly excavations did not locate any items that qualified as a failure.

The corrective action for QC failures included a root-cause analysis and, where appropriate, a full re-clearance of the failed grid. Ultimately, all of the grids subjected to subsurface removal passed the QC/QA processes and were accepted by the government. The NCAs and SCAs were assigned a “To Be Determined” status.

2.3.4 Special Case Areas and Non-Completed Areas

Subsurface MEC remediation was not completed in approximately 227.7 acres of MRS-Ranges 43-48. SCAs were defined for the MRS-Ranges 43-48 IA as an area in which MEC removal could not be completed within the scope of work due to metallic clutter or obstructions that would compromise instrument

performance or technician safety; or because the removal process would cause a serious adverse impact to the habitat. Completion of subsurface remediation was prioritized in portions of the MRS in a manner that most enhanced public and personnel safety and land reuse. Lower priority areas where subsurface remediation was not completed were designated as NCAs. Designated SCAs and NCAs within MRS-Ranges 43-48 are described in detail in the IA Technical Information Paper (Parsons, 2007). The reader is referred to [Figure 5](#) for an illustration of the SCAs and NCAs.

Areas identified as SCAs within MRS-Ranges 43-48 South include nearly 139 acres of Range 48 which contained numerous targets and dense MD. MEC and MD identified within Range 48 SCA during surface removals include practice and HE mortars, 40mm HE projectiles, 57mm HE projectiles, subcaliber LAW rockets, 66mm LAW rockets, rifle grenades (mostly practice), 37mm HE and 75mm HE and shrapnel projectiles, and small arms. This SCA encompasses almost the entirety of the western limb of MRS-Ranges 43-48 South. The other SCAs located in MRS-Ranges 43-48 South include a 0.92-acre bunker location in the southern portion of the MRS and 3.47 acres along the fence line at the far north end of the MRS's eastern limb.

The IA Technical Information Paper (Parsons, 2007) recommended that, "If removal to depth is considered [in the Range 48 SCA], use a dual-tool method, with multiple areas requiring significant excavation in combination with mechanical sifting (or remote control). Potential impacts to habitat would need to be evaluated and considered before performing such actions. If removal to depth is not a viable option, then access should be limited to workers trained in MEC recognition or with UXO escort."

In addition, several NCAs are located within MRS-Ranges 43-48 South, as shown in [Figure 5](#).

2.4 Impact Area – Airborne Geophysical Survey

In early 2005 (January 29 to February 17), a helicopter-mounted magnetic survey was conducted at Fort Ord by Battelle-Oak Ridge and the Oak Ridge National Laboratory. The information in this section comes from the *Final Report Airborne Geophysical Survey, Fort Ord, California* (Battelle-Oak Ridge and Oak Ridge National Laboratory, 2005). The objective of this airborne geophysical survey was to acquire, process, and analyze geophysical data for high densities of anomalies that could be related to targets and/or ranges likely to be highly contaminated with surface and subsurface ordnance items. An effective coverage area of 6,332 acres was achieved by collecting 3,166 acres of airborne magnetic data utilizing alternating transects spaced at 25-meters (m). MRS-Ranges 43-48 was included in this coverage.

As with all geophysical methods, the distance between the source material and the geophysical sensor is critical. The magnitude of the measured response falls off very rapidly as the source- to-sensor distance is

increased. It is especially challenging in rolling terrain, such as is present at Fort Ord, to achieve and maintain an elevation that provides useful results. The interpretation of magnetic survey data analysis was based on calibration measurements acquired at three different altitudes (2 m, 4 m, and 5.5 m) at the Badger Flats Ordnance Detection and Discrimination Study (ODDS) prove-out site. This calibration site contained a suite of ordnance items, placed by Fort Ord Base Realignment and Closure (BRAC) personnel, as well as pipes serving as MEC simulants, placed on the surface by Battelle personnel. The analytic signal map at 2 m flight height indicated that targets larger than 90 mm in diameter could be detected with a high degree of certainty. However, this altitude was only rarely achieved during the actual survey (1 percent). The median height on the main survey block was 3.5 m.

At 4 m altitude, only the pipes, presumed clusters, and the largest of the single targets were clearly visible. Data at this altitude and lower represented 61 percent of the total survey block. At 5.5 m altitude, the pipes and the largest of the clusters were still visible, but discrete objects could not be reliably and consistently detected. Data at 5.5 m altitude and below represented 88 percent of the total survey block. These calibration results support the decision to use a 5-m altitude cutoff threshold to detect clusters of ordnance and debris. Eighty-three percent of the main survey block was surveyed at flight heights lower than the 5-m cutoff. Maps with a 4-m cutoff were produced to represent a higher level of sensitivity. From the analytic signal map produced with a 4-m cutoff (Figure 9), various linear features were observed that are associated with roads, tracks, pipelines, or other cultural features.

In simple terms, the “analytic signal” parameter is a representation of magnetic data whereby the magnetic response of ferrous items (which may be positive or negative in value) are converted to positive values for ease of interpretation and visualization. With respect to MRS-Ranges 43-48 South, the dataset is appropriate for deriving some general conclusions, especially when taken in conjunction with other data collected at the MRS.

2.5 Track 3 Impact Area MRA Record of Decision

As described in the previous section, the IA conducted on MRS-Ranges 43-48 included surface MEC removal on the entire MRS; and subsurface MEC removal and DGM investigations conducted everywhere except in SCAs and NCAs. The southern portion of the MRS (MRS-Ranges 43-48 South) was subsequently included in the Impact Area MRA and was evaluated in the Track 3 Impact Area MRA RI/FS (MACTEC, 2007). The selected remedy for the Track 3 Impact Area MRA is technology-aided surface MEC remediation, with subsurface MEC remediation in selected areas, and land use controls (Army, 2008).

2.6 *Post Track 3 ROD Activities*

The remedial action in the Impact Area MRA began in 2008 following the signature of the Track 3 ROD (Army, 2008). The Track 3 ROD (Army, 2008) states that, “The evaluation of alternatives in the Track 3 Impact Area MRA RI/FS doubles as the follow-on evaluation of this portion of the Ranges 43-48 Interim Action site. The final remedy selected in this ROD is consistent with objectives of the interim actions taken at the Ranges 43-48 site...Therefore, the remedy that is selected in this ROD also serves as the final remedy for these two Interim Action areas. In effect, this Impact Area MRA Track 3 ROD amends the 2002 Interim Action ROD regarding the southern portion of Ranges 43-48 and Range 30A.”

The following activities have been implemented at MRS-Ranges 43-48 South:

2.6.1 *Annual Surface Monitoring*

The Army conducts monitoring of safety/security data for areas within the Impact Area MRA where a surface removal of MEC has been completed that includes the review of reports and observations involving potential MEC; the recording, compilation, and analysis of MEC incident reports; and the conduct of annual surface monitoring walks. An assessment of area conditions is developed annually until the area is determined to have reached a stable condition.

A surface monitoring walk is a component of the monitoring program and is an effort to determine if MEC has become exposed by erosion, flooding or other weathering effects. Also of interest is the presence of expended or practice projectiles and casings that retain their original configuration. The presence of MD may indicate the potential for MEC to be similarly present and require adjustment to access, security, or other operating procedures.

The surface monitoring walk does not assess the entirety of an area, but concentrates on locations likely accessible to trespassers and authorized workers. Areas of interest include earthworks (revetments and excavations), previous target and MEC locations, range roads, fuel breaks, banks, and slopes. [Figure 10](#) illustrates the tracks that were walked during the annual monitoring efforts.

2009 As described in the *Munitions and Explosives of Concern Area Monitoring Reports Fort Ord, California, 2009* (Army, 2009), a surface monitoring walk of the Range 48 surface removal area was conducted on June 5 and June 8, 2009. Prior to the walk the possible visual surface disposition of 40mm HE grenade and High Explosive Antitank (HEAT) projectiles such as LAW rockets, 57mm and 75mm antitank projectiles was reviewed due to the previous evidence of their use in the area and the potential danger of those items. During the surface monitoring walk a considerable amount of RRD (target debris) and MD were encountered (small arms casings and projectiles, MD fragments). No MEC was identified

during the surface monitoring walk. Encounters with suspicious munitions items were recorded by photo and GPS. The majority of MD observed was identified as small arms, expended sub caliber LAW rockets, expended 40mm practice projectiles, and 60mm and 81mm mortar fins. The photos were examined by the project USACE OESS and the items were determined to be MD.

2010 As described in the *Munitions and Explosives of Concern Track 3 Area Monitoring Reports Former Fort Ord California 2010* (Army, 2010), a surface monitoring walk of MRS-Ranges 43-48 South was conducted on the Range 43 surface removal area on March 11, 2010. During the surface monitoring walk some RRD (target debris) and MD were encountered (inert 40mm practice projectiles and expended 35mm sub caliber rockets) and removed. Three MEC-like MD items were collected. No suspected MEC was identified. More than 6 years had passed since the completion of a 100 percent surface removal action on MRS-Ranges 43-48. In the intervening years, the maritime chaparral habitat had recovered considerably from the associated vegetation removal actions and obscured approximately 75 percent of the ground surface area. The plants in these areas had recovered sufficiently enough to significantly hinder access on foot in the majority of the grids. In the area of Range 43, vegetation obscured about 70 percent of the surface. Except for burrowing by small animals, the area appeared to have remained relatively stable since the 2003 prescribed burn and subsequent MEC removal activities. Some slopes of the area had excavations where small arms targets were previously located. These locations showed signs of erosion consistent with disturbed sandy slopes. Vegetation continued to encroach on open areas and stabilize existing slopes.

2011 This information is derived from the *Track 3 Surface Removal Area Munitions and Explosives of Concern Monitoring Reports Former Fort Ord, California 2011* (Army, 2011). A surface monitoring walk by three personnel using wandering paths examined a portion of the visible surface of MRS-Ranges 43-48 South on February 14. During the surface monitoring walk, some MD was encountered (81mm mortar tail fins; and practice 57mm and 75mm projectiles). These items were removed. Approximately 65 pounds of inert/expended MD items (but visually similar to MEC) were collected. No suspected MEC was identified. Vegetation continued to encroach on open areas and stabilize existing slopes.

2012 Visual reconnaissance in MRS-Ranges 43-48 South was conducted in 2012 by Innovative Technical Solutions, Inc (ITSI) Gilbane personnel as described in [Section 2.6.5](#) below. This reconnaissance fulfilled the annual surface monitoring requirement for 2012.

2013 As described in the *Munitions and Explosives of Concern Track 3 Area Monitoring Reports Former Fort Ord California 2013* (Army, 2013), a surface monitoring walk of MRS-Ranges 43-48 South was conducted in March and April, 2013. During the surface monitoring walk some MEC-like MD was

encountered and removed. Three suspected MEC items were identified and referred to the USACE OESS for inspection and were subsequently determined to be MD.

2014 As described in the *Munitions and Explosives of Concern Track 3 Area Monitoring Reports Former Fort Ord California 2014* (Army, 2014), a surface monitoring walk of MRS-Ranges 43-48 South was conducted in March and April, 2014.

During the surface monitoring walk nine MEC-like MD were encountered and removed. Five suspected MEC items were identified and referred to the USACE OESS for inspection and were subsequently determined to be MD.

An analysis of available DGM data to determine high density subsurface anomaly areas in MRS-Ranges 43-48 South was completed in 2013. An enhanced surface monitoring method was then employed in those portions of MRS-Ranges 43-48 South where data identified high subsurface anomaly density and UXO with sensitive fuzes were located during MEC removal activities. This method involved a surface search pattern designed to observe more than 10% of the surface within 100 feet of the GPS location of UXO with sensitive fuzes. MD associated with munitions with sensitive fuzes was identified in MRS-Ranges 43-48 South during 2014 surface monitoring. No UXO with sensitive fuzes were identified.

2015 As described in the *Munitions and Explosives of Concern, Track 3 Area Monitoring Reports, Former Fort Ord California, 2015* (Army, 2016b), a surface monitoring walk of MRS-Ranges 43-48 South was conducted in May, 2015. During the surface monitoring walk 39 suspected MEC items were identified and referred to the USACE OESS for inspection and were subsequently determined to be RRD or MD.

2016 As described in the *Munitions and Explosives of Concern, Track 3 Area Monitoring Reports, Former Fort Ord California, 2016* (KEMRON, 2017a), a surface monitoring walk of MRS-Ranges 43-48 South was conducted in November, 2016. During the surface monitoring walk two suspected MEC items were identified and subsequently determined to be MEC (57mm M306 HE projectiles). No MEC items with sensitive fuzes were noted in 2016.

2017 As described in the *Munitions and Explosives of Concern, Track 3 Area Monitoring Reports, Former Fort Ord California, 2017* (KEMRON, 2017b), a surface monitoring walk of MRS-Ranges 43-48 South was conducted in April, 2017. During the surface monitoring walk three suspected MEC items were identified and one item was subsequently determined to be MEC (M222/223 Dragon rocket motor). No MEC items with sensitive fuzes were noted in 2017.

2018 As described in the *Munitions and Explosives of Concern, Track 3 Area Monitoring Reports, Former Fort Ord California, 2018* (KEMRON, 2019b), a surface monitoring walk of MRS-Ranges 43-48 South

was conducted in April and August 2018. During the surface monitoring walk one suspect MEC item was identified (35mm sub-caliber practice rocket, subsequently determined to be MD). No MEC items were found during the walk in 2018. In the western side of the unit, MD observed included components of sensitive fuze-type munitions (40mm and 66mm).

2.6.2 Surface Removal, Range 48 – Shaw – 2010

The information in this section comes from the *Technical Memorandum Surface Sweep Range 48* (Shaw Environmental [Shaw], 2010). On August 29, 2009, a wildfire burned approximately 7 acres of moderate-density vegetation approximately 250m northeast of the intersection of Evolution Road and Broadway Avenue inside the 2003 surface removal area of Range 48. The suspected cause was the unprovoked, spontaneous functioning of a DMM; specifically, a White Phosphorus (WP), smoke hand grenade. The proximity of physical evidence, functional characteristics of the suspected source item and the conditions at the point of ignition indicate that the grenade was the likely cause of the reported wildfire. Procedures used during the surface remedial action of 2003 do not provide an indication as to why the incident item was not removed during that action. It is possible that the item was obscured either by vegetation and /or soil during that action.

The incident demonstrated a potential for spontaneous functioning DMM or UXO WP grenades to be present in and adjacent to Range 48 and initiated a response from the Army in coordination with the MR Base Cleanup Team (MR BCT). To address the hazard to authorized workers and trespassers presented by the potential presence of other WP grenades in the area of Range 48, a magnetometer-assisted surface sweep was performed between March 22 and April 7, 2010 to remove surface MEC and MD resembling MEC.

The magnetometer-assisted surface sweep was limited to accessible areas within Range 48 where WP grenades were previously located (2003). The sweep was referenced to the existing 100 foot by 100 foot grids in the Fort Ord geographic information system. The general procedure was to sweep across a designated area with the UXO Technicians spread across a line approximately four feet apart. An area of approximately 55 acres of Range 48 was examined. An additional 45 acres within the WGBA were examined during the action to include areas surrounding where UXO WP grenade locations had been documented during the 2003 removal action. The areas covered by this action are illustrated on [Figure 11](#). Six MEC items were located and removed, consisting of two 81mm mortars (HE), two 57mm projectiles (HE), one 60mm mortar (HE), and one 35mm sub caliber practice rocket. No additional WP grenades were located.

2.6.3 Subsurface Removal on Fuel Breaks

As per the *Technical Information Paper Digital Geophysical Mapping of the Permanent Fuel Breaks Former Fort Ord, California* (Shaw, 2011a), Shaw performed DGM surveys along fuel breaks within the Impact Area MRA from August 2010 to February 2011. Part of this work documented the geophysical response along the portion of Evolution Road that forms the western boundary of MRS-Ranges 43-48, two short segments of Broadway Avenue on the southern border of MRS-Ranges 43-48, the Broadway Bypass (located wholly within MRS-Ranges 43-48 South), and a portion of Felix Road located within MRS-Ranges 43-48 South. Mapping of the fuel break along Orion Road (eastern boundary of MRS-Ranges 43-48 South) took place during the remedial action carried out over Units 18 and 22. All of the geophysical mapping work was carried out with EM61-MK2A sensors.

The Broadway Bypass is a fuel break section that has been established to replace a portion of Broadway Avenue and the northern section of Evolution Road as a change to the existing permanent fuel break network. The acreage of Evolution Road is now included as part of MRS-Ranges 43-48 South.

Shaw performed DGM on the Broadway Bypass as described in *Technical Information Paper Digital Geophysical Mapping of the Permanent Fuel Breaks Former Fort Ord, California* (Shaw, 2011a). The subsurface MEC removal completed on Broadway Bypass is part of the on-going subsurface MEC removal being conducted on the permanent fuel breaks within the Impact Area MRA. Utilizing advanced geophysical classification techniques six UXO items (three 57mm HE projectiles and three 60mm HE projectiles) were removed from the 2.1-acre project area. Other recovered targets of interest (subsequently confirmed as MD, exact models are not known) included one rocket motor, one illumination signal, nine 57mm projectiles, one 60mm projectile, 15 81mm mortar projectiles, two 105mm projectiles, and one 155mm projectile. Details of this work and the MEC removed is presented in the *Draft Remedial Action Report Track 3 Impact Area MRA Broadway Bypass Former Fort Ord, California* (KEMRON, 2019a).

2.6.4 MRS-BLM Units 14 and 19

The *MRS-BLM Units 14 and 19 Munitions and Explosives of Concern Remedial Action Report Former Fort Ord, California, Revision 1* (Shaw, 2011b), notes that analog (mag and dig) subsurface MEC removal was conducted along parts of both sides of Broadway Road as part of the Units 14 and 19 Remedial Action in March 2011. This section of road forms most of the southern border of MRS-Ranges 43-48 South.

The area was characterized by high anomaly densities, but the MEC items encountered in this vicinity were not of the types that contain sensitive fuzes. The remedial action report documents that 11 UXO items were found during the Broadway Road subsurface MEC removal: two 57mm projectiles (HE) and nine 81mm

mortars (HE). These items were found on the south side of Broadway Road, within MRS-BLM Units 14 and 19.

2.6.5 Visual Reconnaissance - ITSI

As part of the assessment of MRS-Ranges 43-48 South, Innovative Technical Solutions, Inc. (now Gilbane Company) carried out a visual reconnaissance of the accessible portions of the MRS. This work was carried out on January 11, 2012, and February 6 through 8, 2012. [Figure 10](#) illustrates the meandering paths that were taken by the field team. This work is further described in the *Track 3 Surface Removal Area Munitions and Explosives of Concern, Monitoring Reports, Former Fort Ord California 2012* (Army, 2012).

Typically, the team was comprised of one observer carrying a GPS, accompanied by a UXO technician. The UXO technician generally followed a path that was offset from the GPS track by approximately 75 ft. and was also on the lookout for evidence of ordnance activity. Assigning a nominal observation width of 10 ft. to the paths walked by both team members results in a total of approximately 30 acres of visual reconnaissance carried out during this effort.

Overall, the western limb of MRS-Ranges 43-48 South exhibited more MD than did the eastern limb, which is consistent with the results of other work that has been performed within the MRS. No MEC items were found during the visual reconnaissance effort. MD found within the western limb included small fragments of ordnance, fuze components, mortar components, expended rocket motors, small arms casings, several 35mm sub caliber practice rockets, and the remnants of practice 40mm projectiles. Given that the purpose of this field activity was to simply observe field conditions as opposed to doing surface clearance work, these MD items were left in place. Only very occasional MD was observed in the eastern limb.

Only one item removed from MRS-Ranges 43-48 South as a result of this reconnaissance effort was determined to be suspect MEC (60mm mortar). After detonation it was determined to be MD.

2.6.6 Munitions with Sensitive Fuzes Field Study within Range 48 Footprint

In 2016 a portion of the Range 48 range fan was cut to support the Munitions with Sensitive Fuzes Field Study (MSFFS). This study was conducted under the *Final Work Plan, Munitions with Sensitive Fuzes Field Study, Former Fort Ord, California* (KEMRON, 2017c). This approximately 11 acre area is shown on [Figure 12](#). The study involved operating an advanced EMI sensor in close proximity to the ground surface. In order to conduct the study, vegetation was cut and a near surface removal (to a depth of six inches) was conducted. 100 by 100 grids were established for this field work and standard QC/QA processes were implemented. Although it was not unexpected that surface MEC would be visible following vegetation

cutting, a total of 111 surface and near- surface MEC items were removed from this area during site preparation. These MEC items are listed below in [Table 2-2](#).

Table 2-2
Range 48 Field Study Area Surface and Near-Surface Investigation Recovered MEC

Item Description	Type	Quantity
Grenade, hand, smoke, white phosphorous, M15	UXO	3
Igniter, bomb, white phosphorous, M23	UXO	1
Projectile, 4.2inch, mortar, high explosive, M3 series	UXO	4
Projectile, 40mm, high explosive, M406	UXO	2
Projectile, 57mm, high explosive, M306 series	UXO	10
Projectile, 57mm, target practice, M306 series	UXO	1
Projectile, 60mm, mortar, high explosive, M49 series	UXO	55
Projectile, 75mm, high explosive, M48	UXO	2
Projectile, 75mm, high explosive, MK I	UXO	1
Projectile, 75mm, shrapnel, MK I	UXO	1
Projectile, 81mm, mortar, high explosive, M374 series	UXO	1
Projectile, 81mm, mortar, high explosive, M43 series	UXO	21
Projectile, 81mm, mortar, high explosive, M56	UXO	7
Projectile, 81mm, mortar, smoke, white phosphorous, M57 series	UXO	1
Rocket, 35mm, subcaliber, practice, M73	UXO	1

2.7 *Watkins Gate Burn Area*

Approximately 1,000 acres of WGBA was unintentionally burned in October 2003 during the prescribed burn on MRS-Ranges 43-48. Surface MEC removal and geophysical transect sampling were conducted in the burned area as a TCRA. Annual surface area monitoring has been conducted in this area since 2009.

Vegetation clearance, technology-aided surface MEC removal, and DGM survey were conducted in 2013 and 2014 in a portion of the WGBA, which is immediately adjacent to MRS Ranges 43-48 South. The area where this work was conducted did not burn as part of a wildfire in October, 2003. Mechanical and manual vegetation cutting in the work area began in July 2013 and was completed in November 2013. Oak trees within the work area were limbed up to allow access for surface MEC removal and DGM survey teams, but were not removed. Technology-aided surface MEC removal in the work area began in August 2013 and was completed in May 2014. A total of 34 MEC items were recovered during these work activities. The completion of the technology-aided surface removal of MEC in the work area resulted in the removal of one MEC item considered to have a sensitive fuze, an M386 40mm high-explosive grenade, to the west of Evolution Road. Further detail is provided in the WGBA TM (KEMRON, 2015).

The results of the technology-aided surface MEC removal and DGM in the 2013 work area, as well as TCRA surface removal, DGM transect sampling, and annual monitoring in the TCRA work area, were reviewed in the WGBA TM (KEMRON, 2015). In the northeastern portion of WGBA, a relatively higher subsurface anomaly density than the rest of the WGBA was noted immediately west of Evolution Road where DGM data was able to be collected. This area is part of the Range 48 range fan and is being included as part of this TM addressing MRS Ranges 43-48 South. Other than inclusion of the portion of WGBA which includes the Range 48 range fan, no additional work was identified in the WGBA TM (KEMRON, 2015).

3.0 EVALUATION

This section provides an evaluation of the work completed to date and, if necessary, describes additional MEC removals recommended based on that evaluation. Prescribed burning, visual surface MEC removal, and subsurface MEC removal in portions of the MRS have been conducted as part of the interim remedial action. Within the areas where subsurface MEC removal was not conducted, the evaluation in this section examines whether additional areas are identified as recommended for subsurface MEC removal for specific purposes to support the reuse.

3.1 Surface MEC Removal Evaluation

As a result of conducting the IA surface removal work within MRS-Ranges 43-48 South, the risk of encountering MEC by current and future users of the MRS has been reduced. The surface MEC removal conducted at MRS-Ranges 43-48 South was conducted prior to the signing of the Track 3 ROD (Army, 2008). As noted above in [Section 2.6.2](#) and [Section 2.6.6](#), additional surface MEC removal was conducted in 2010 in approximately 100 acres and in an additional 11 acre area in 2016. MEC was located and removed during both of these actions.

Annual monitoring has been conducted in MRS-Ranges 43-48 South since 2009. The monitoring efforts have shown that the ground surface has continued to become more stable with the regrowth of vegetation. As described in [Section 2.6.1](#), annual monitoring walks have noted observations of MEC-like MD and suspect MEC. Some of the suspect MEC items were MEC. These observations have occurred more frequently on the western side of the unit corresponding to the Range 48 fan area. Based on the surface monitoring data, personnel who access Ranges 43-48 South may encounter suspect MEC items. Annual monitoring continues to be implemented in MRS-Ranges 43-48 South as recommended in the *Munitions and Explosives of Concern, Track 3 Area Monitoring Reports, Former Fort Ord California, 2018* (KEMRON, 2019b).

A variety of munitions types was used on Range 48 for many years before base closure. DGM data indicates high density of subsurface anomalies in the Range 48 area, indicating considerable amount of subsurface debris still exists. More than small quantities of MD have been observed during annual surface monitoring on the western side of the unit (associated with the Range 48 fan area) for consecutive years. Surface removal in the majority of the Range 48 fan area was conducted prior to the Track 3 ROD (Army, 2008) based on 1,000-ft by 1,000-ft grids. Multiple surface and near-surface MEC items were removed in the sensitive fuze-type munitions field study area within Range 48 in 2016. To address the potential for MEC

to be similarly present on the surface in the vicinity of the study area that is closest in proximity to the public, the Army has initiated an additional near-surface MEC removal (followed by DGM) in the northern portion of the Range 48 fan area, where surface removal was conducted prior to the Track 3 ROD. This work is being conducted under *Field Work Variance 024 to the Final Site Specific Work Plan, Munitions and Explosives of Concern, Non-Burn Areas, Former Fort Ord, California* (KEMRON, 2019c). The area of the additional near-surface MEC removal is shown on [Figure 13](#). The remainder of the Range 48 fan area should continue to be evaluated through the annual surface monitoring program.

3.2 *Digital Geophysical Mapping Evaluation*

DGM survey work that was conducted over MRS-Ranges 43-48 South was primarily limited to the geophysical transect sampling performed over MRS-Ranges 43-48 following the October 2003 prescribed burn and subsequent surface MEC removal. The transect DGM work covered approximately 3 percent of MRS-Ranges 43-48 South (a 3-foot wide transect approximately every 100 ft.) and does not constitute a specific record of every anomaly that could exist within the MRS. The west limb is characterized by relatively higher densities of anomalies while the east limb exhibits relatively lower anomaly densities. Correlation of the DGM transect work and the resultant anomaly density map with other sources of information is discussed below.

- A) **Comparison with Airborne Geophysical Results.** The airborne geophysical work took place in the first half of February, 2005. The surface and subsurface removal work within Ranges 43-48 took place between November, 2003 and December, 2005. The surface clearance work within MRS-Ranges 43-48 had occurred prior to the airborne geophysical survey, thus validating the comparison between it and the transect DGM work. The most striking correlation between the two sets of data is the strong repeatability of the elevated response observed within the western limb of the MRS. In addition, the relatively lower anomaly densities predicted by the EM61-MK2 for the eastern limb of MRS-Ranges 43-48 South are confirmed by the airborne geophysical results. The one exception to this correlation pattern is the apparent lack of an elevated airborne geophysical response (as opposed to an increased transect DGM response) in the southwest corner of the west limb. The reason for this is unclear, but increased flight height or the presence of non-ferrous munitions items are likely contributing factors.
- B) **Comparison with Clearance Results.** Given the small number of grids within MRS-Ranges 43-48 South that received both transect DGM work and subsurface clearance (the transect DGM survey took place after the surface removal, but before the subsurface removal), it is difficult to draw strong conclusions regarding the validity of the anomaly density map based on the subsurface

removal results. This is further compounded by the absence of subsurface removal work carried out in areas that are predicted to be higher anomaly density areas as illustrated by the anomaly density map. In the locations where both activities did take place, the predicted anomaly densities are light to moderate. Also, the relevant data from the subsurface clearance work is somewhat limited. While the amounts and types of discovered MEC are of some interest, the more useful parameter is the weight of MD that was removed per grid shown on [Figure 7](#), because the geophysical work responds to all conductive material it detects and does not discriminate between MEC and MD. Typically, a grid will contain far more MD than MEC. Examination of this data shows good correlation with the anomaly density map – relatively light to moderate MD weights reported where the predicted anomaly densities ranged from light to moderate.

Also of note are the MD weights reported from the surface clearance work. Although its resolution is very coarse, due to the 1,000 ft. x 1,000 ft. dimensions of the grids, it agrees with the picture painted by the anomaly density map.

- C) **Comparison with Unexcavated DGM Grids.** The 100 percent DGM work carried out by Shaw between August 2010 and February 2011 over the permanent fuel breaks provides a good validation of the anomaly density map derived from the 3 percent transect DGM characterization work. Grid-by-grid examination of the 100 percent data collected along the Broadway Bypass reveals relatively heavy anomaly density at its southern end, gradually decreasing in density until it reaches the moderately dense northern end where the bypass connects to Felix Road. This is in general agreement with the anomaly density map. Looking at the data from south to north, Evolution Road exhibits very heavy anomaly densities for much of its length, only decreasing to moderate and light densities at its north end. This is in agreement with the anomaly density map.

In contrast to 100 percent DGM, which can provide a picture of the location and magnitude of individual anomalies potentially representing MEC, the geophysical transect sampling provides a cost-effective, “big picture” representation of conditions. This knowledge of the relative anomaly densities may assist future property users in identifying areas where explosive safety support (e.g., onsite construction support) may be required for ground disturbing or intrusive activities and to assist in making land management decisions. The reader is cautioned that this big picture view should be utilized in terms of groups of ten (or more) 100 ft. x 100 ft. grids, as opposed to decisions being made on the basis of single grids. If additional MEC removal is conducted with vegetation clearance in portions of the site, DGM survey should be considered before the vegetation regrows.

3.3 Evaluation to Identify Areas Recommended for Additional MEC Removal

As per the Track 3 ROD (Army, 2008), when evaluating whether additional removal is recommended, the Army would consider, among other factors: (1) explosive hazards associated with MEC so far recovered; (2) the proximity to potential receptors; (3) the density of MEC recovered; and (4) consistency with applicable or relevant and appropriate requirements (ARARs (e.g., HMP and Biological Opinions)).

During the IA, surface MEC containing sensitive fuzes were recovered in MRS-Ranges 43-48 South. Of these items, those that are in line with the Range 48 fan are co-located with areas considered to have high density of subsurface anomalies. These items are shown on [Figure 14](#).

As discussed in the IA Technical Information Paper (Parsons, 2007), if removal to depth is considered in the Range 48 SCA, such an action could involve significant excavation in combination with mechanical sifting in multiple areas. The potential impacts to habitat would need to be evaluated and considered before performing such actions. Continuation of the annual monitoring will provide additional information to be used to evaluate the possible further response action in conjunction with other candidate areas within the Impact Area MRA (e.g. Units 11 and 12).

The Army is conducting a separate study of possible alternatives to address those areas, considering the potential for subsurface MEC items to become exposed by erosion over the long term.

A) Munitions Containing Sensitive Fuzes by Type

Munitions encountered within MRS-Ranges 43-48 South can be classified into two categories: direct fire and indirect fire.

Direct fire refers to the launching of a projectile directly at a target on a relatively flat trajectory. Direct fire munitions used within Ranges 43-48 are all caliber of recoilless rifles, rockets (including sub-caliber training rockets), 40mm projectiles, and guided missiles such as the Dragon. Due to the trajectory of these munitions, if the items do not detonate upon impact with the ground surface, the majority can be expected to be located on or near the surface.

By contrast, indirect fire refers to firing a projectile on a ballistic trajectory or delivering munitions by guided or unguided missiles. Indirect fire does not need a direct line of sight to the target because the shots are normally directed by a forward observer. As such, indirect fire weapons can shoot over obstacles or friendly units and the weapons can be concealed from direct return fire. Munitions encountered within Ranges 43-48 which are of the indirect fire type are several sizes of mortar and artillery projectiles. Due to the trajectory and shape of these munitions, if the items do not detonate upon impact with the ground surface, they can be expected to be located in the subsurface.

Munitions containing sensitive fuzes encountered at MRS-Ranges 43-48 South are direct fire munitions. There are short-range and long-range types of these munitions.

Short Range Munitions with Sensitive Fuzes

Table 3-1
 Short-Range Munitions with Sensitive Fuzes

Model	Nomenclature	Maximum Range	Type System
M371	Projectile, 90mm, HEAT, M371A1	400 Meters	Crew Served
M381	Projectile, 40mm, HE, M381	400 Meters	Individual
M433	Projectile, 40mm, HEDP, M433	400 Meters	Individual

Range 45 was a dedicated 40mm range, devoid of vegetation at the time of base closure. This resulted in a high concentration of UXO (HE and practice items) and MD. Based on the use of Range 45 as a platoon live fire course and the locations of the short range munitions with sensitive fuzing encountered, the items identified above were likely the result of the platoon moving through the range and engaging targets. Because the short range 40mm and 90mm HEAT, M371 series have been encountered beyond their 400m maximum range, their locations indicate some of the projectiles were fired during movement and not from a static firing point. Given this scenario, concentrations of these munitions with sensitive fuzes would be expected beyond 400m from the firing points. MEC items with sensitive fuzes were encountered and removed from the Range 48 vicinity as part of surface MEC removal activities.

Long Range Munitions with Sensitive Fuzes

Due to the longer range of these munitions and the relatively moderate size of Ranges 43-48, it is not possible to confidently delineate locations within MRS-Ranges 43-48 South where long-range munitions would be present. The overlapping nature of the range fans, coupled with the longer range of these munitions items, make the firing point of origin difficult to determine. However, 66mm rockets and 90mm projectiles (recoilless rifles) were authorized for use in Range 44 and MEC of those types were removed approximately in line with the known R44 firing fan shown in [Figure 4](#). 66mm rockets were also removed from the Range 48 fan, and range use history and MEC removal in Ranges 44, 45, 47 and 48 indicates the use of 40mm projectiles.

Table 3-2
 Long-Range Munitions with Sensitive Fuzes

Model	Nomenclature	Maximum Range	Type System
M72 Series	Rocket, 66mm, HEAT	1,000 Meters	Individual
M348	Projectile, 90mm, HEAT, M348	11,650 Meters	Mounted Gun
M383	Projectile, 40mm, HE, M383	2,200 Meters	Crew Served
M384	Projectile, 40mm, HE, M384	2,200 Meters	Crew Served
M430	Projectile, 40mm, HEDP, M430	2,200 Meters	Crew Served

B) Recovered Munitions with Sensitive Fuzes

A review of munitions with sensitive fuzing recovered from MRS-Ranges 43-48 South and the depths at which they were recovered is provided:

- Projectile, 90mm, HEAT, M348 and M371 Series – Three 90 mm HEAT projectiles were found on the surface and all within the Range 48 SCA.
- Rocket, 66mm, HEAT, M72 Series – All eight of the M72 series rockets recovered from MRS-Ranges 43-48 South were found on the surface and all within Range 48.
- Projectile, 40mm – Nineteen HE 40mm projectiles were located within MRS Ranges 43-48 South. Eleven of the items were on the surface and eight were located in the subsurface. One was found at 1 inch in depth, two were found at 2 inches, three were found at 3 inches and two were at 6 inches in depth.

Figure 14 illustrates the locations and types of such munitions that have been found during the various phases of work that have been carried out in MRS-Ranges 43-48 South. While the density of these items varies, the northern portion of the western limb of the MRS (Range 48 SCA) contained the highest number of munitions with sensitive fuzes that have been discovered to date. Others were also found further south at locations within the Range 48 range fan.

The Range 48 range fan is characterized by a relatively high density of anomalies and an area where military munitions with sensitive fuzes were fired. Such areas are considered “candidate areas” and are evaluated for subsurface removal under the Track 3 ROD (Army, 2008). Given that the munitions with sensitive fuzing fired at the MRS were of the direct-fire type (described above) and the vegetative conditions that existed at their time of use, it is expected that most of the munitions with sensitive fuzes would be on the ground surface or shallow subsurface. The Army is currently conducting an additional near-surface MEC

removal in the northern portion of the Range 48 fan area. A study of possible alternatives to address "candidate areas" is also in progress. It is recommended that the Range 48 fan area be evaluated in conjunction with other identified candidate areas after completion of the field study.

3.4 Summary of Evaluations

A brief summary of the evaluations provided above is given below:

- **Surface Removal** – The surface removal work was successful in reducing the risk of encountering MEC to current and future users of MRS-Ranges 43-48 South. The reduction in risk is sustained as the vegetation has been recovering and is shown by annual surface monitoring. However, several MEC were recovered during surface and near-surface MEC removal during preparation of a portion of Range 48 for the field study activities. This recovery of MEC indicates that additional surface MEC removal is warranted. To address the potential for MEC to be similarly present on the surface in the vicinity of the study area, the Army is currently conducting an additional near-surface MEC removal in the northern portion of the Range 48 fan area. The remainder of the Range 48 fan area should continue to be evaluated under the annual surface monitoring program. The area where vegetation clearance and additional near-surface MEC removal is being conducted is shown on [Figure 13](#).
- **Digital Geophysical Mapping** – The DGM conducted at MRS-Ranges 43-48 South provides a record of anomalies that can assist future property users in identifying areas where explosives safety support (e.g., onsite construction support) may be required for ground disturbing or intrusive activities. If additional MEC removal is conducted with vegetation clearance in portions of the site, DGM survey should be considered in the area while accessible.
- **Identification of Areas Recommended for Additional Subsurface MEC Removal** – The Range 48 range fan within MRS-Ranges 43-48 South and the WGBA should continue to be monitored and should be evaluated in association with other candidate areas within the Impact Area MRA that have been identified in TMs for potential subsurface removal work. As discussed in the IA Technical Information Paper (Parsons, 2007), if removal to depth is considered in Range 48 in order to remediate trail or road alignments or to remove munitions with sensitive fuzes, such an action could involve significant excavation in combination with mechanical sifting in multiple areas. Potential impacts to habitat should be evaluated and considered before performing such actions.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The work that has been carried out to date has reduced the risk presented by past ordnance use at MRS-Ranges 43-48 South. The Impact Area MRA is designated as habitat reserve, with a network of permanent fuel breaks providing access to BLM to perform habitat management. It is anticipated that most of the MRS will become increasingly inaccessible as the vegetation grows (primarily CMC). Under the Track 3 ROD (Army, 2009), future public access will be limited to designated routes such as the permanent fuel breaks.

Based on an analysis of the work that has been completed within MRS-Ranges 43-48 South, comparison of that analysis with the remedy presented in the Track 3 ROD (which includes annual monitoring and land use controls) and the expected future use of MRS-Ranges 43-48, it is concluded that:

- The area where vegetation clearance and additional near-surface MEC removal is being conducted is shown on [Figure 13](#). The remainder of the Range 48 fan area should continue to be evaluated under the annual surface monitoring program,
- If additional MEC removal is conducted with vegetation clearance in portions of the site, DGM survey should be considered in the area while accessible, and
- It is recommended the Range 48 fan area be evaluated along with other "candidate areas" for possible subsurface MEC removal after completing the Munitions with Sensitive Fuzes Field Study.

Special Case and Non-Completed Areas shown on [Figure 5](#) are provided for informational purposes. These areas are outside of the Range 48 fan area, do not exhibit the same issues noted in the Range 48 fan, and have had surface MEC removal performed. No additional work in these areas has been identified based on the evaluation.

Access to MRS Ranges 43-48 South is currently controlled and will remain controlled for the foreseeable future while additional evaluation continues.

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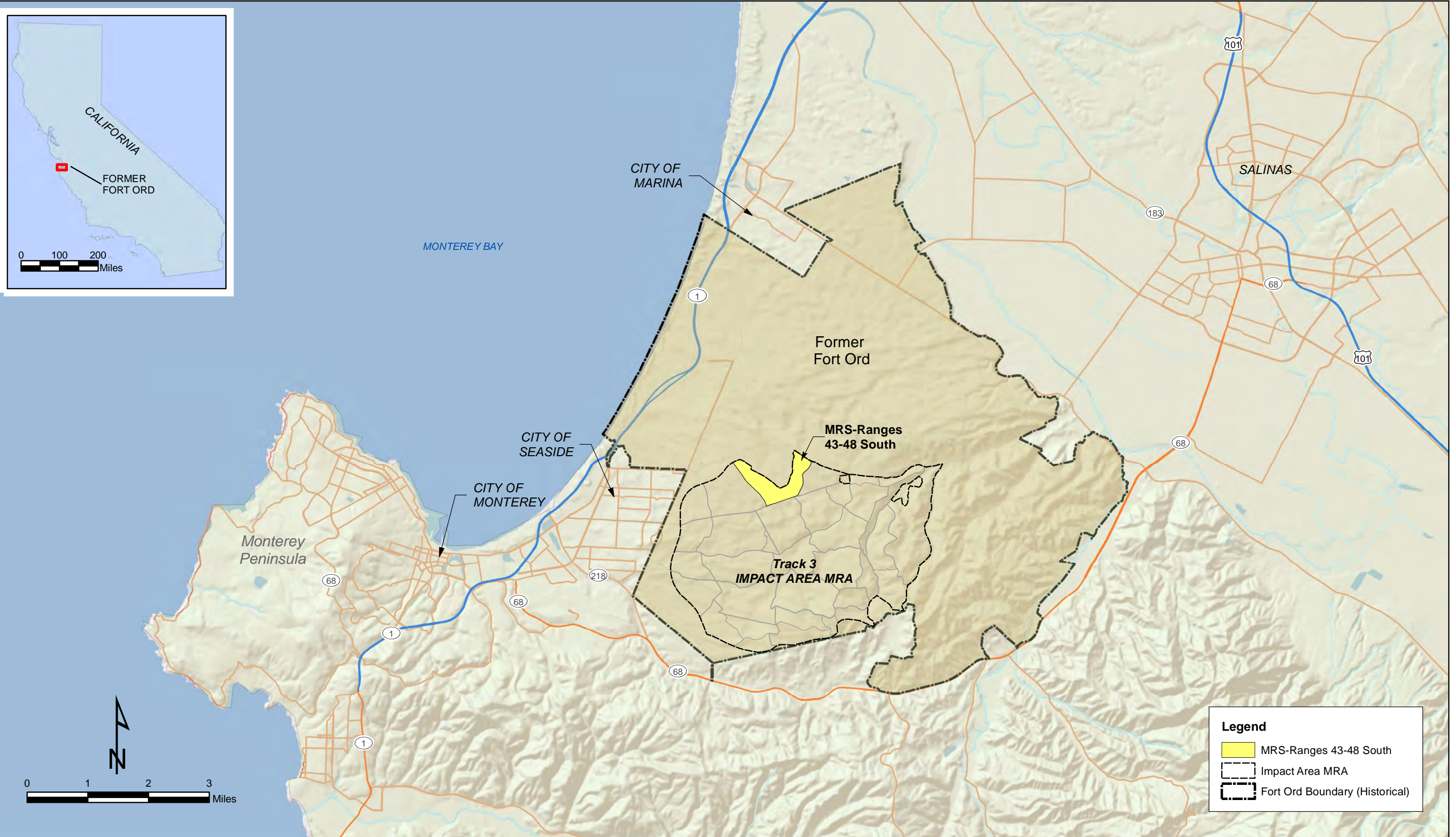
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Figures



Legend

- MRS-Ranges 43-48 South
- Impact Area MRA
- Fort Ord Boundary (Historical)

0 1 2 3
Miles

N
↑

CALIFORNIA

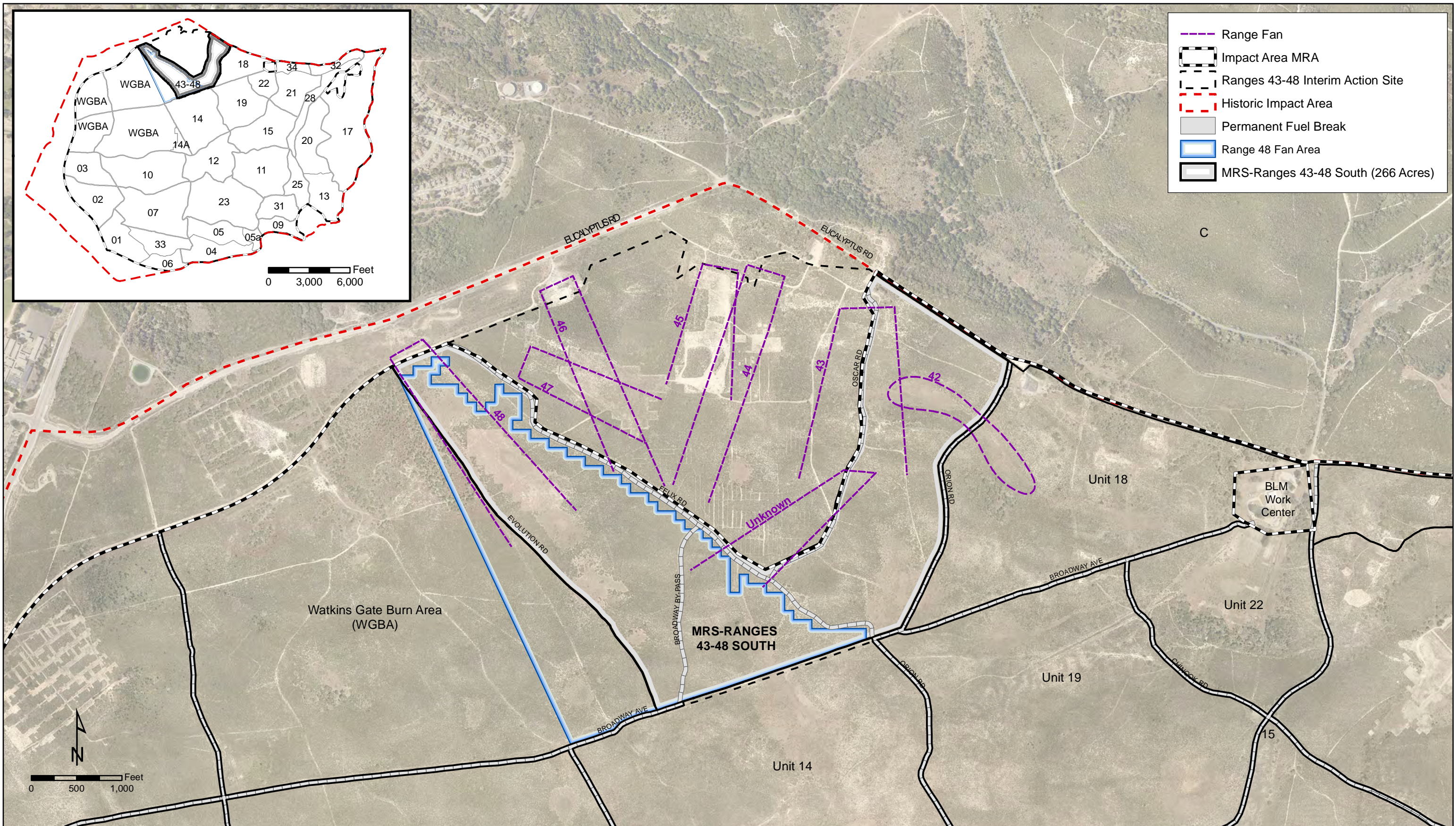
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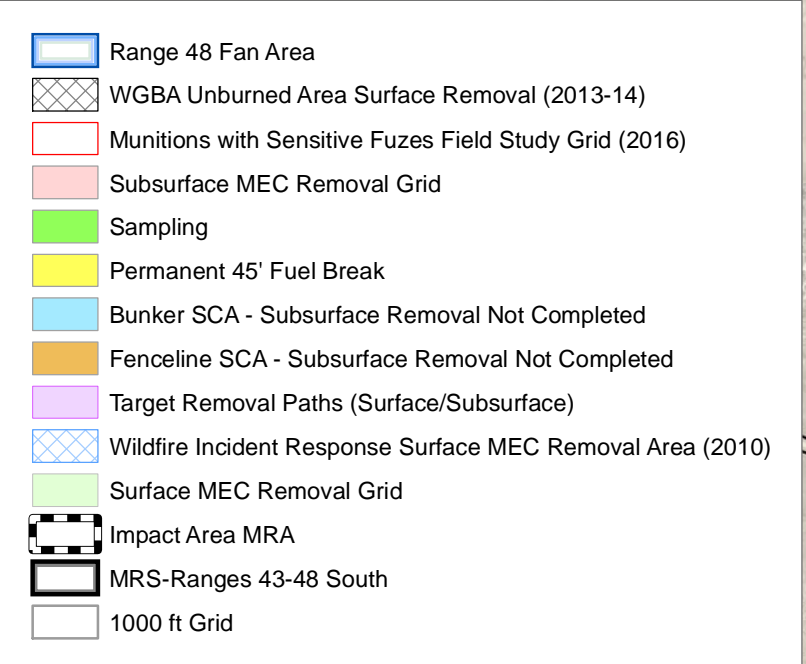
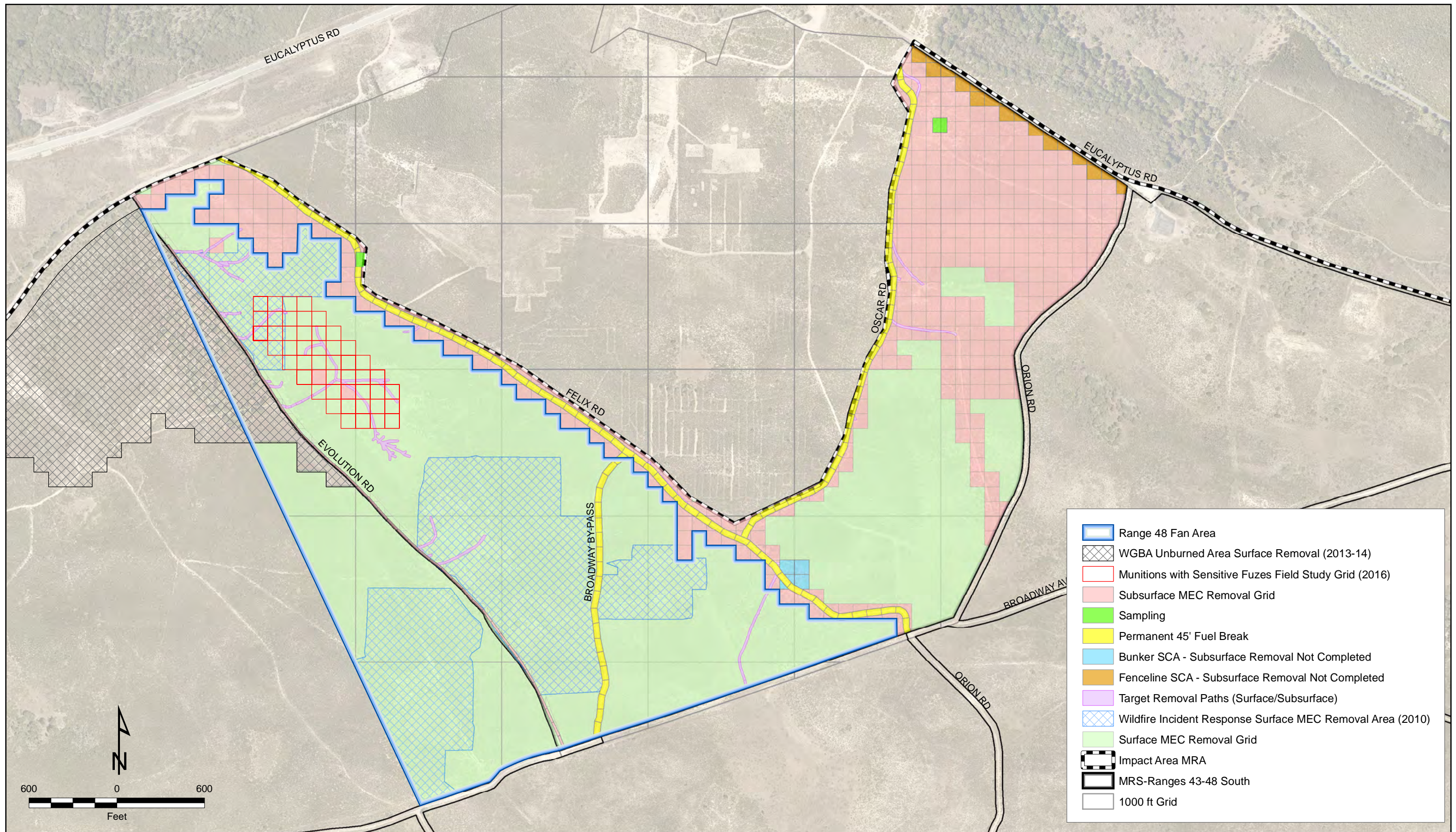
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 MEC Remedial Action
 Track 3 Impact Area MRA
 MRS-Ranges 43-48 South
 Former Fort Ord, California

Figure 1
 Track 3 Impact Area MRA
 Regional Location Map



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 MRS-Ranges 43-48 South
 Former Fort Ord, California

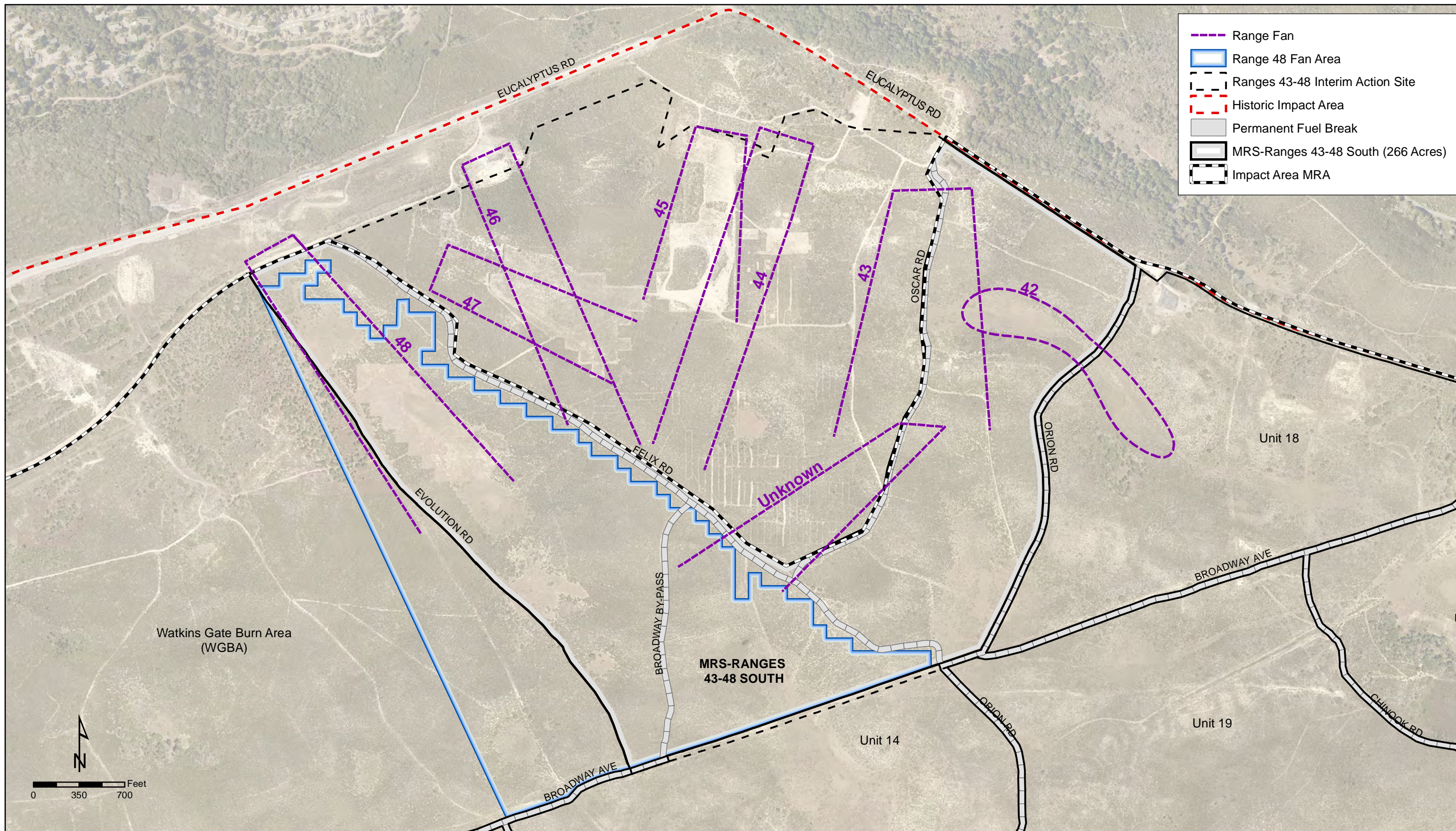
Figure 2
 MRS-Ranges 43-48 South
 Site Overview



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Figure 3
 Locations of Surface and
 Subsurface MEC Removal

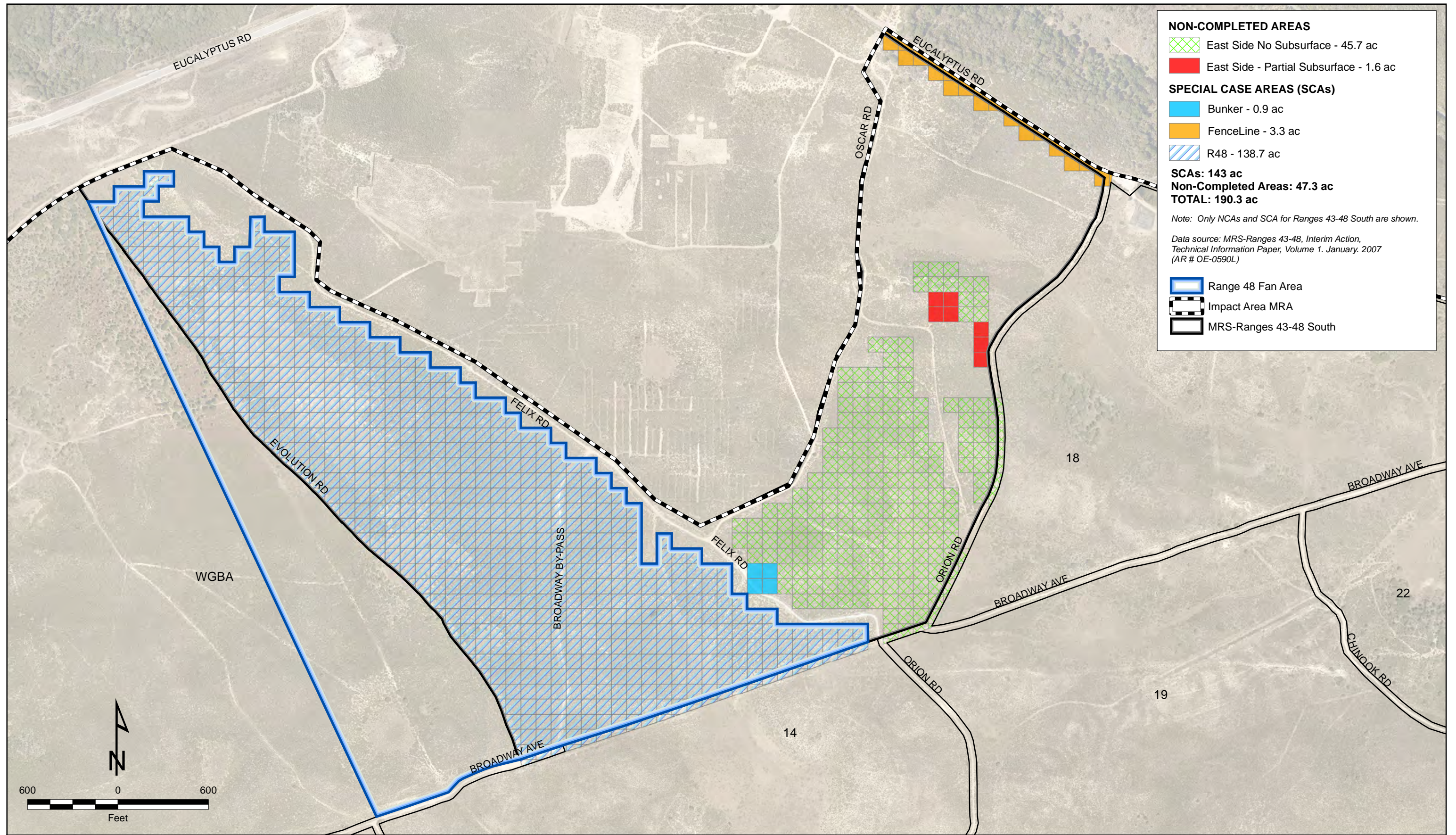




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Figure 4
 MRS-Ranges 43-48 South
 Range Fans





NON-COMPLETED AREAS

- East Side No Subsurface - 45.7 ac
- East Side - Partial Subsurface - 1.6 ac

SPECIAL CASE AREAS (SCAs)

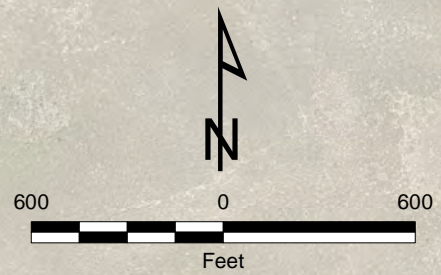
- Bunker - 0.9 ac
- FenceLine - 3.3 ac
- R48 - 138.7 ac

SCAs: 143 ac
Non-Completed Areas: 47.3 ac
TOTAL: 190.3 ac

Note: Only NCAs and SCA for Ranges 43-48 South are shown.

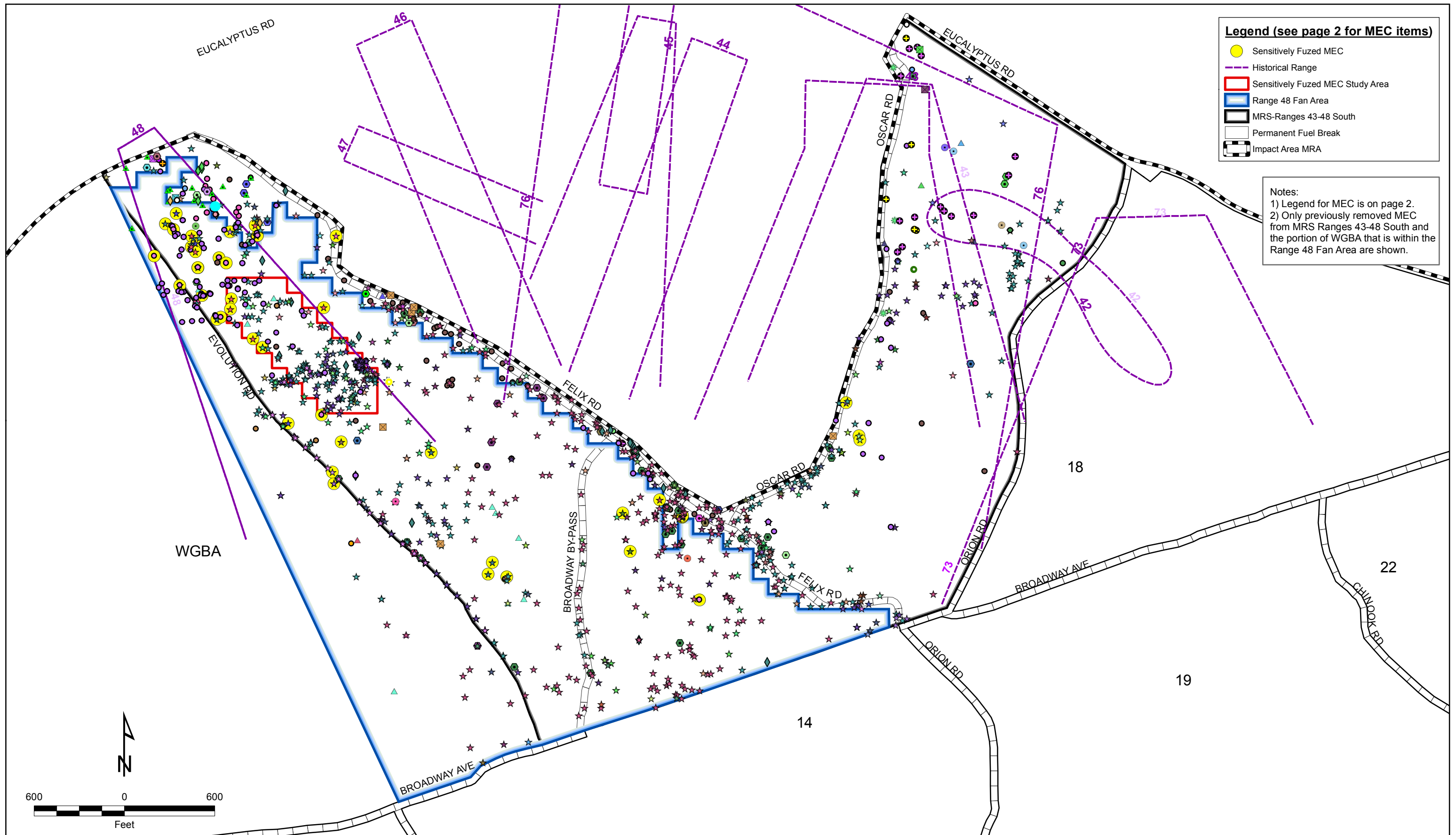
Data source: MRS-Ranges 43-48, Interim Action, Technical Information Paper, Volume 1. January. 2007 (AR # OE-0590L)

- Range 48 Fan Area
- Impact Area MRA
- MRS-Ranges 43-48 South



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 MRS-Ranges 43-48 South
 Former Fort Ord, California

Figure 5
 Special Case and Non-Completed Areas

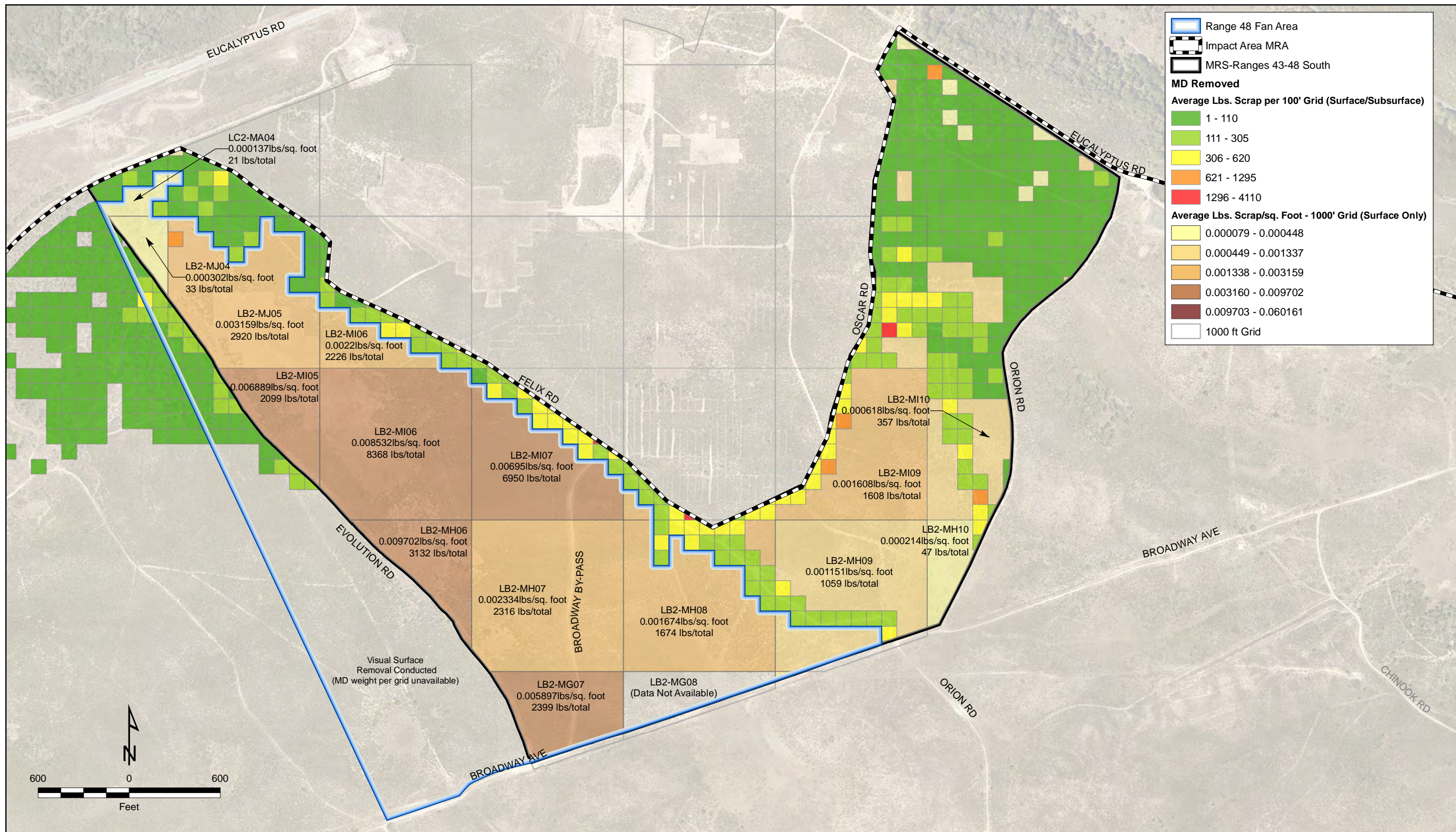


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 MRS-Ranges 43-48 South
 Former Fort Ord, California

Figure 6
 Locations of MEC Removed to Date

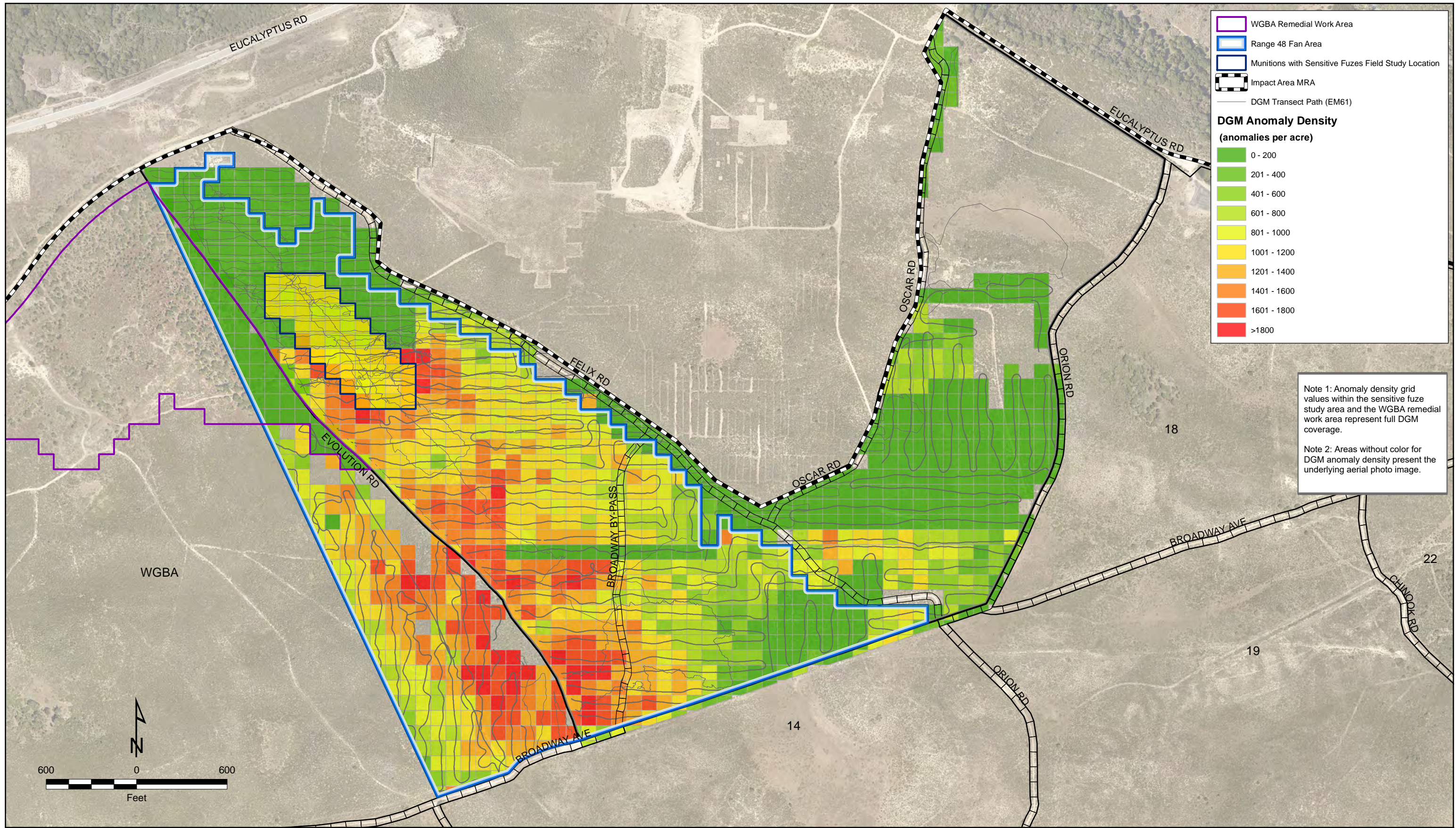
MEC

- 75MM (Model Unknown)*
- Ash, pyrotechnic
- Bursting, field, incendiary, M4
- Cap, blasting, electric, M6
- Cap, blasting, non-electric, M7
- Cartridge, 40mm practice, M382
- Cartridge, 40mm practice, M781
- Cartridge, ignition, M2 series
- Charge, 0.25lbs, demolition, TNT
- Cord, detonating
- Explosive, bulk, high explosive
- Firing device, pull friction, M2
- Firing device, pull, M1
- ★ Flare, parachute, trip, M48
- ★ Flare, surface, trip, M49 series
- Fuze, grenade, hand, M10 series
- Fuze, grenade, hand, M204 series
- Fuze, grenade, hand, M206 series
- Fuze, grenade, hand, practice, M205 series
- Fuze, mine, antitank, practice, M604
- Fuze, projectile, mechanical time super quick, M772
- Fuze, projectile, point detonating, M46
- Fuze, projectile, point detonating, M48 series
- Fuze, projectile, point detonating, M503 series
- Fuze, projectile, point detonating, M51 series
- Fuze, projectile, point detonating, M52 series
- Fuze, projectile, point detonating, M524 series
- Fuze, projectile, point detonating, M53 series
- Fuze, projectile, point detonating, M557
- Fuze, rocket, base detonating, M404
- Fuze, time, blasting, M700
- ▲ Grenade, hand, fragmentation, MK II
- ▲ Grenade, hand, illumination, MK I
- ▲ Grenade, hand, incendiary, TH3, AN-M14
- ▲ Grenade, hand, practice, MK II
- ▲ Grenade, hand, smoke, HC, AN-M8
- ▲ Grenade, hand, smoke, M18 series
- ▲ Grenade, hand, smoke, white phosphorous, M15
- ▲ Grenade, hand, smoke, white phosphorous, M34
- ▲ Grenade, rifle, antitank, M9 series
- ▲ Grenade, rifle, high explosive antitank, M28
- ▲ Grenade, rifle, smoke, M22 series
- ▲ Grenade, rifle, smoke, M23 series
- Igniter, bomb, white phosphorous, M23
- Mine, anti-personnel, M18A1 (Claymore)
- Ordnance components
- ★ Projectile, 105mm, high explosive, M1
- ★ Projectile, 105mm, smoke, M84 series
- ★ Projectile, 155mm, high explosive, MK 1
- ★ Projectile, 155mm, illumination, M485 series
- ★ Projectile, 25mm, subcaliber, M379
- ★ Projectile, 37mm, high explosive, M54
- ★ Projectile, 37mm, high explosive, M63
- ★ Projectile, 37mm, high explosive, MK II
- ★ Projectile, 4.2 inch, mortar, high explosive, M3 series
- ★ Projectile, 4.2 inch, mortar, high explosive, M329 series
- ★ Projectile, 4.2 inch, mortar, smoke, white phosphorous, M328 series
- ★ Projectile, 40mm, cluster, white star, M585
- ★ Projectile, 40mm, high explosive dual-purpose, M430
- ★ Projectile, 40mm, high explosive dual-purpose, M433
- ★ Projectile, 40mm, high explosive, M381
- ★ Projectile, 40mm, high explosive, M383
- ★ Projectile, 40mm, high explosive, M384
- ★ Projectile, 40mm, high explosive, M406
- ★ Projectile, 40mm, parachute, M583 series
- ★ Projectile, 40mm, practice, (model unknown)
- ★ Projectile, 40mm, practice, M382
- ★ Projectile, 40mm, practice, M407A1
- ★ Projectile, 40mm, practice, M918
- ★ Projectile, 40mm, smoke, M680 series
- ★ Projectile, 40mm, smoke, M713 series
- ★ Projectile, 57mm, armor piercing tracer, M70
- ★ Projectile, 57mm, high explosive antitank, M307
- ★ Projectile, 57mm, high explosive, M306 series
- ★ Projectile, 57mm, smoke, white phosphorous, M308 series
- ★ Projectile, 57mm, target practice, M306 series
- ★ Projectile, 60mm, mortar, high explosive, M49 series
- ★ Projectile, 60mm, mortar, high explosive, M720
- ★ Projectile, 60mm, mortar, illumination, M721
- ★ Projectile, 60mm, mortar, illumination, M83 series
- ★ Projectile, 60mm, mortar, practice, M50 series
- ★ Projectile, 75mm, high explosive, M309
- ★ Projectile, 75mm, high explosive, M41A1
- ★ Projectile, 75mm, high explosive, M48
- ★ Projectile, 75mm, high explosive, MK I
- ★ Projectile, 75mm, shrapnel, MK I
- ★ Projectile, 75mm, smoke, white phosphorous, M311
- ★ Projectile, 76mm, high explosive, M352
- ★ Projectile, 81mm, mortar (model unknown)
- ★ Projectile, 81mm, mortar, high explosive, M362
- ★ Projectile, 81mm, mortar, high explosive, M374 series
- ★ Projectile, 81mm, mortar, high explosive, M43 series
- ★ Projectile, 81mm, mortar, high explosive, M56
- ★ Projectile, 81mm, mortar, illumination, M301 series
- ★ Projectile, 81mm, mortar, practice, M43 series
- ★ Projectile, 81mm, mortar, smoke, white phosphorous, M375 series
- ★ Projectile, 81mm, mortar, smoke, white phosphorous, M57 series
- ★ Projectile, 84mm, high explosive antitank, M136 series (AT-4)
- ★ Projectile, 90mm, high explosive antitank, M348
- ★ Projectile, 90mm, high explosive antitank, M371 A1
- ◆ Propellant, rocket
- ◆ Rocket motor, 2.36 inch
- ◆ Rocket motor, 3.5 inch
- ◆ Rocket motors, M222/M223 (DRAGON)
- Rocket, 2.36 inch, high explosive antitank, M6 Series
- Rocket, 2.36 inch, practice, M7
- Rocket, 2.36 inch, smoke, HC, T27
- Rocket, 35mm, subcaliber, practice, M73
- Rocket, 66mm, high explosive antitank, M72 series
- SIGL, ILLUM, HAND, FIRED (Model Unknown)*
- Signal, illumination, AN-M43 series
- Signal, illumination, aircraft, AN-M37 series
- Signal, illumination, ground, M125 series
- Signal, illumination, ground, M21A1
- Signal, smoke, ground, M62 series
- Simulator, flash artillery, M21
- Simulator, projectile, airburst, M74 series



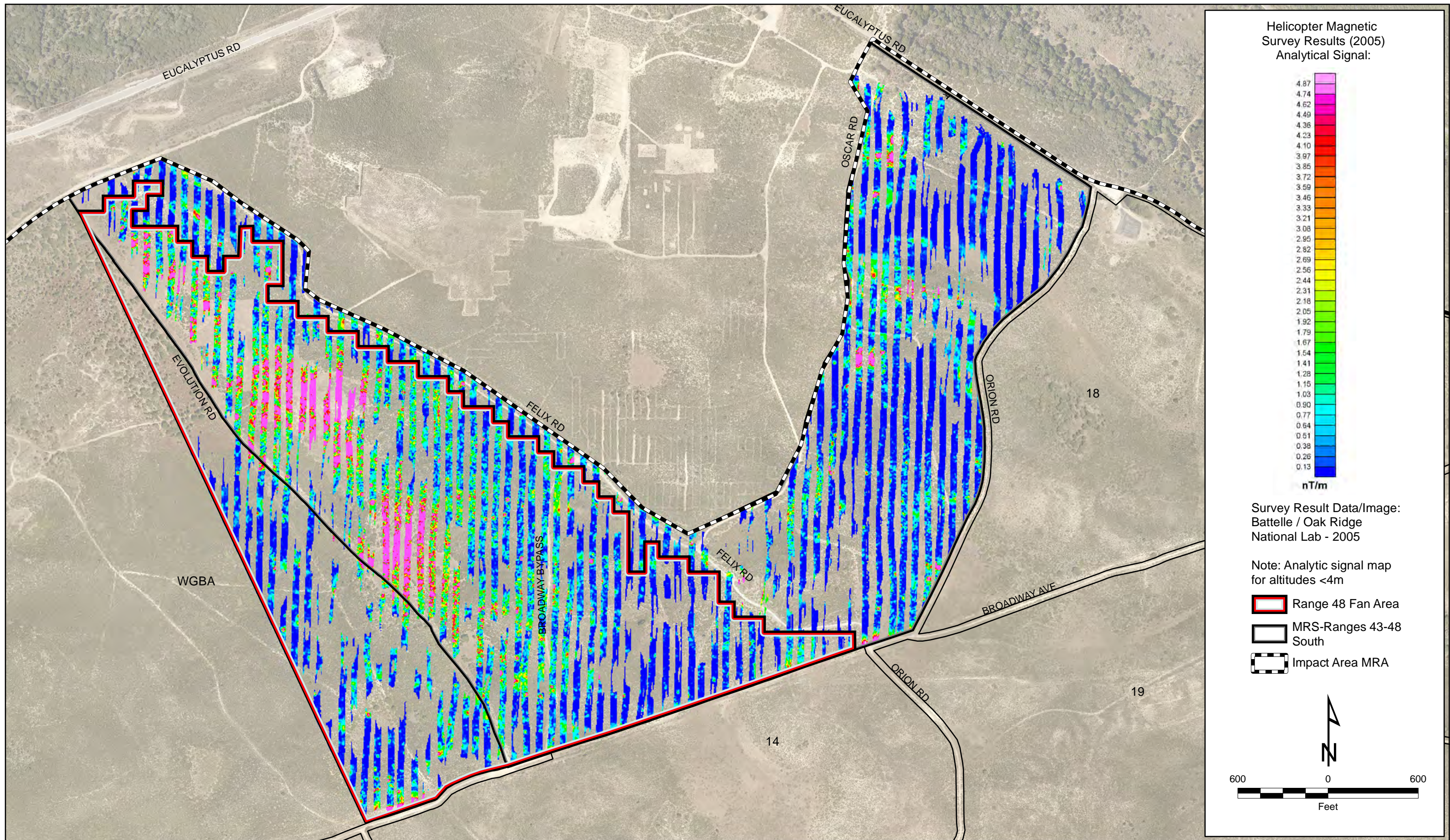
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 Track 3 Impact Area MRA
 MRS-Ranges 43-48 South
 Former Fort Ord, California

Figure 7
 Munitions Debris (MD) Removed to Date



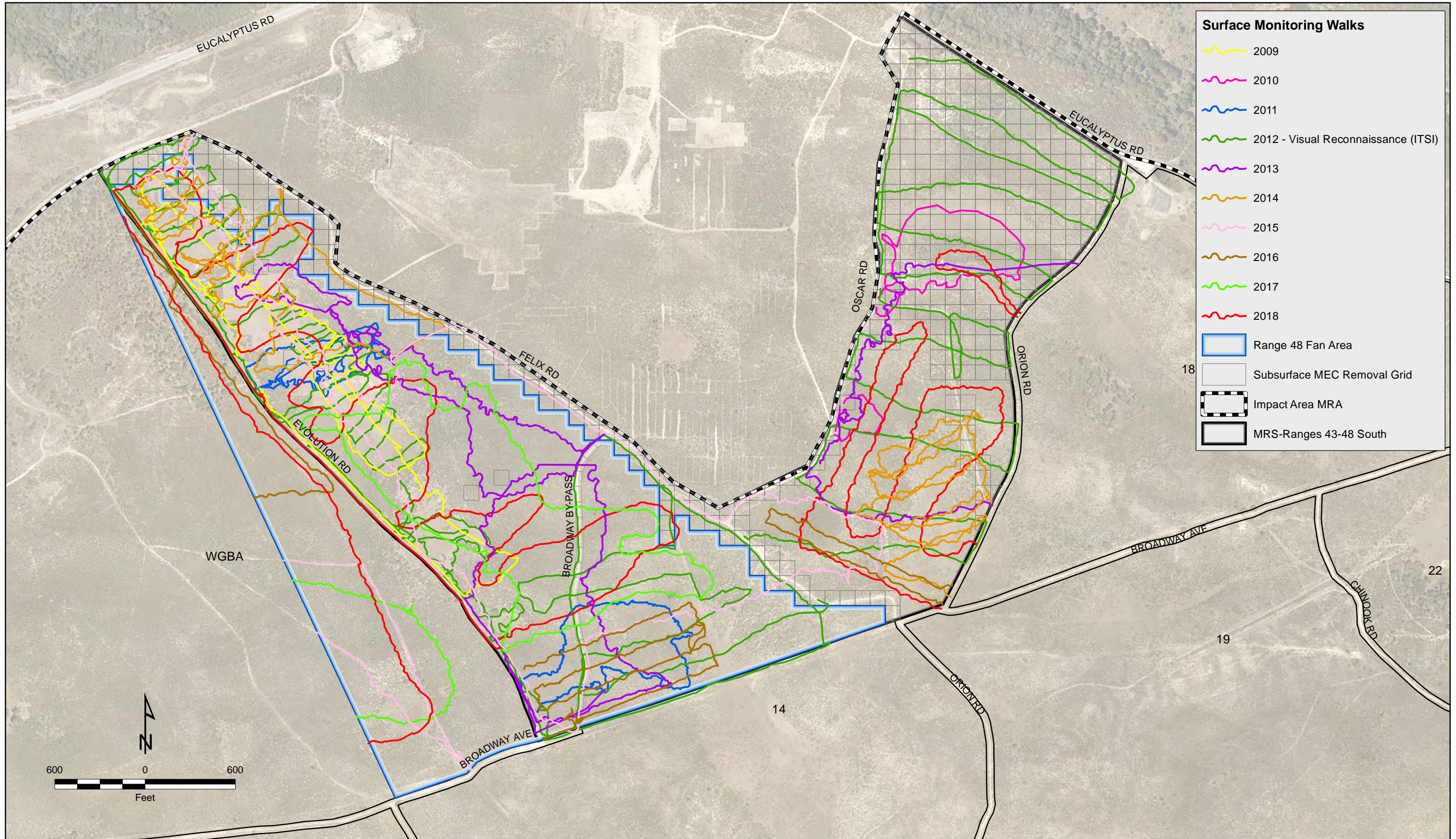
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 Track 3 Impact Area MRA
 MRS-Ranges 43-48 South
 Former Fort Ord, California

Figure 8
 Geophysical Anomaly Density
 (From Transect DGM)



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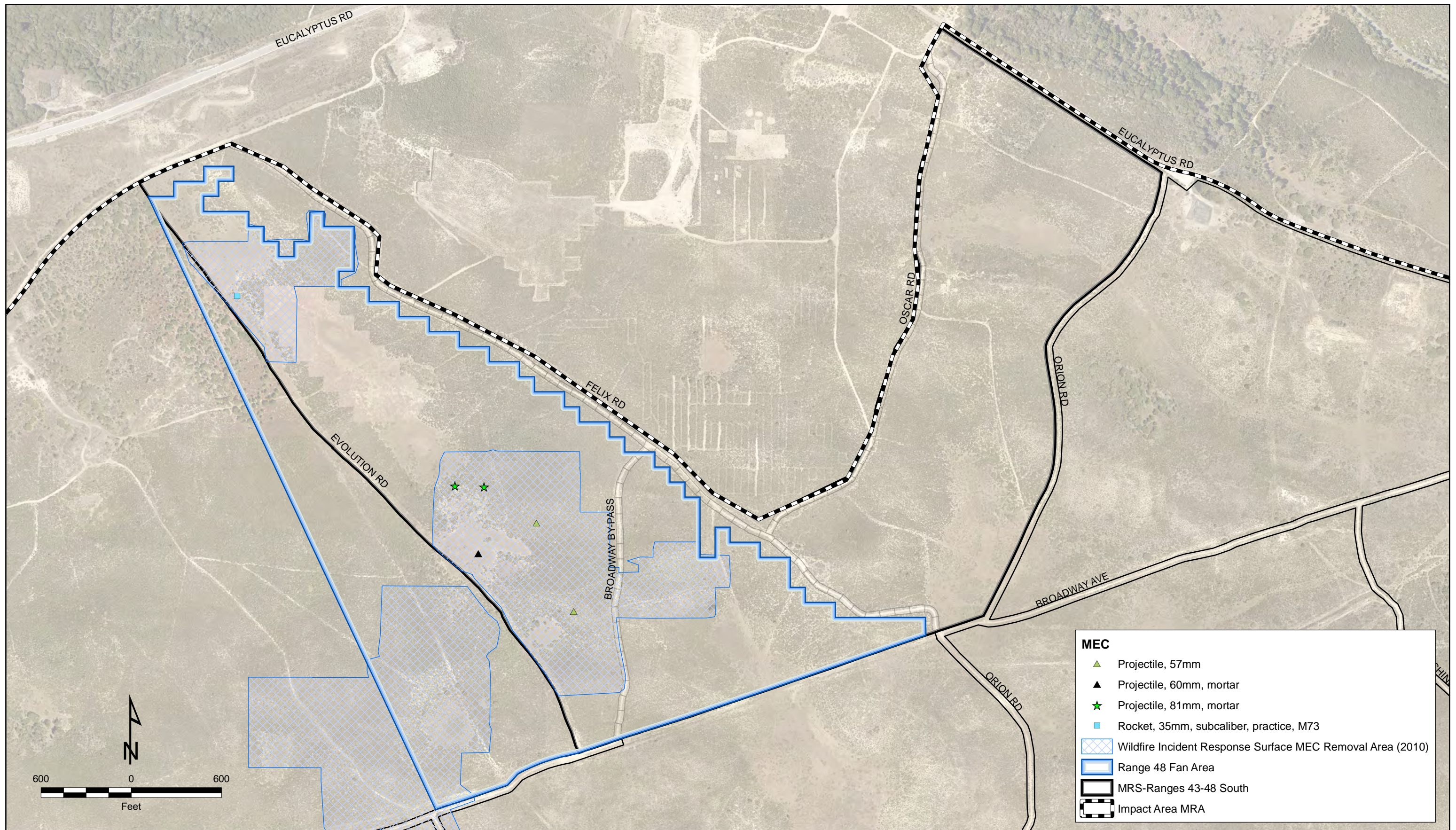
Figure 9
Helicopter Magnetic Survey Results
(Analytical Signal)



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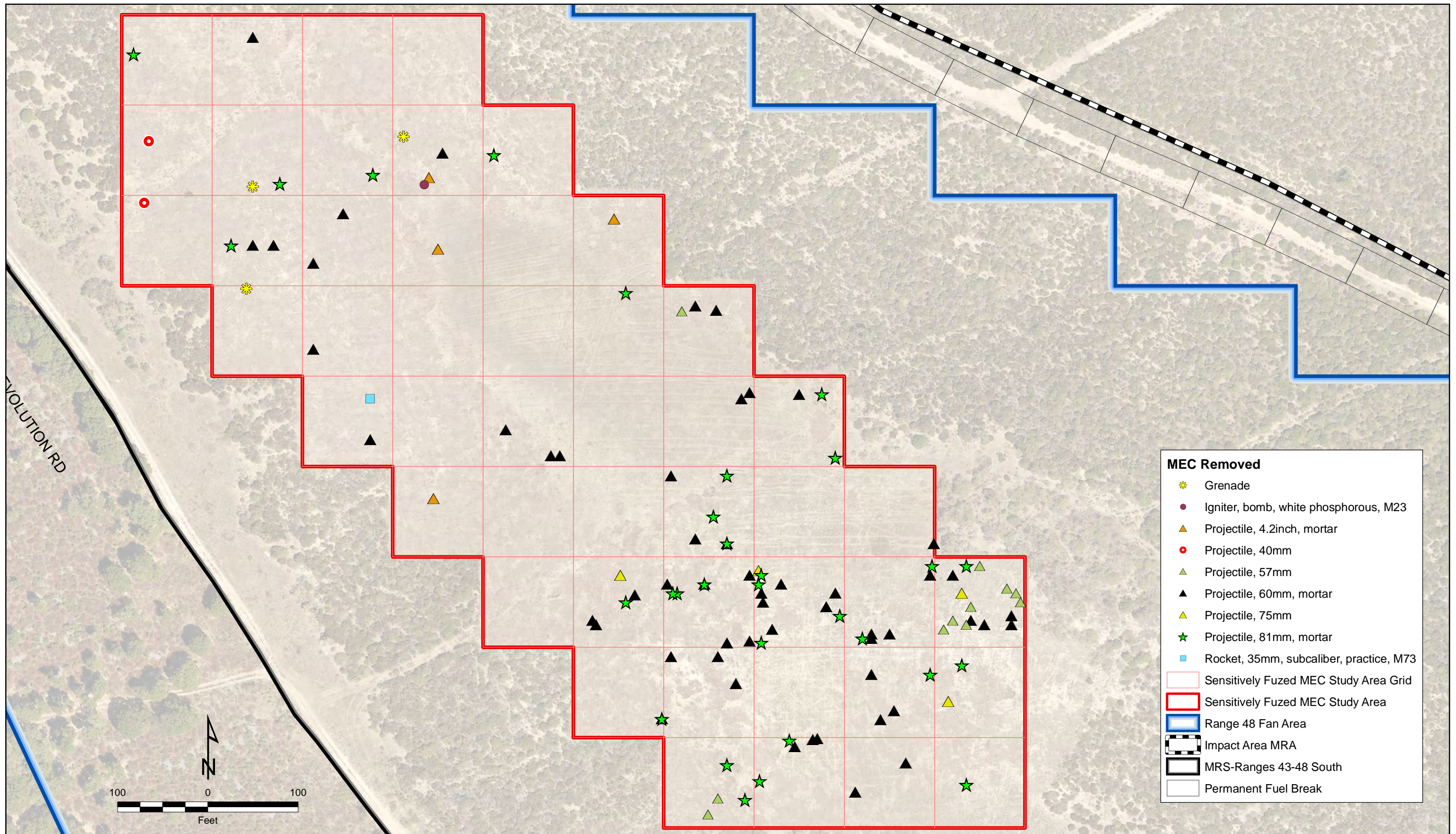
Figure 10
 Surface Monitoring Walks





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 MEC Remedial Action
 Track 3 Impact Area MRA
 MRS-Ranges 43-48 South
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Figure 11
 Surface Removal
 Range 48 (2010)



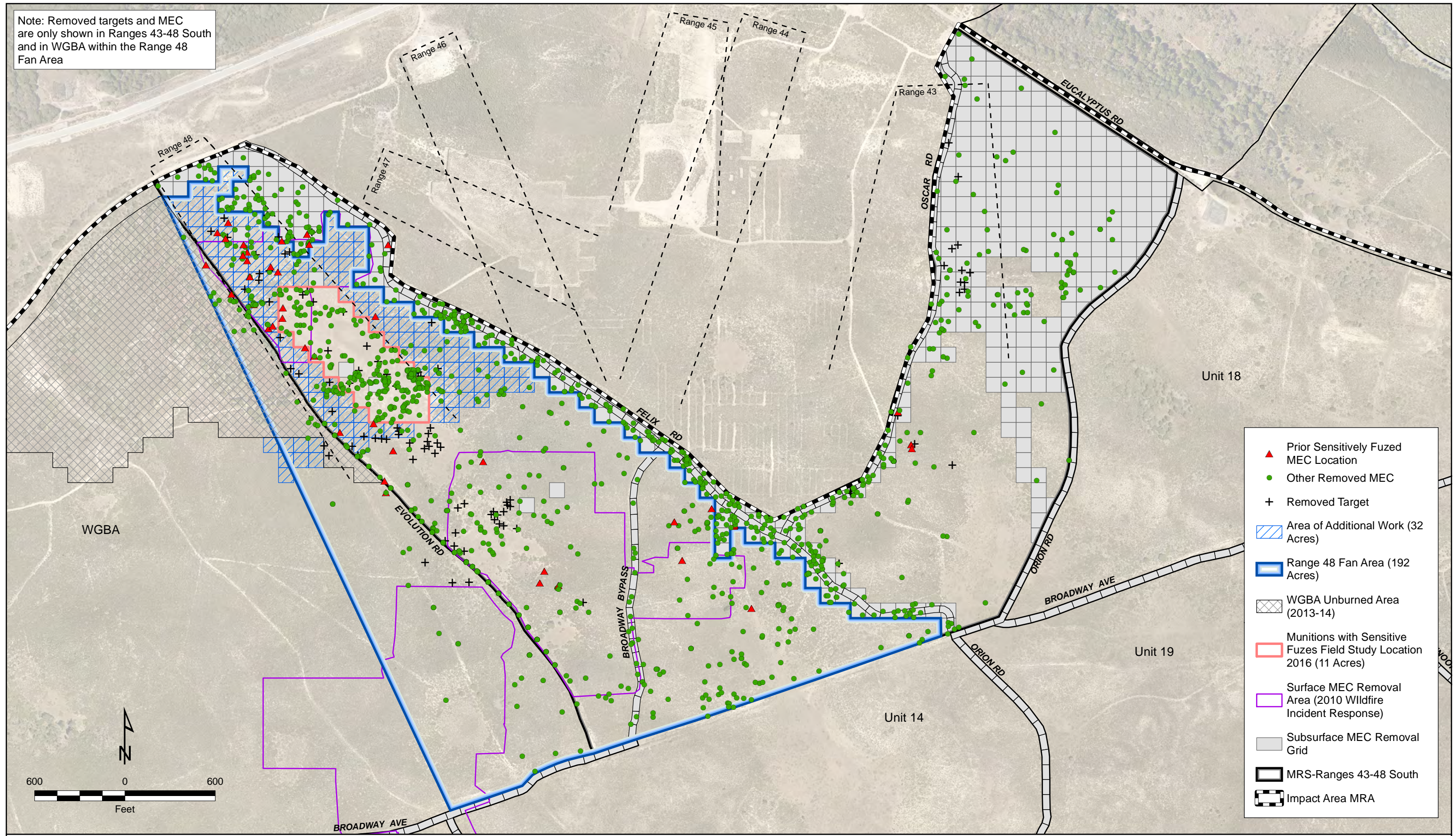
- MEC Removed**
- Grenade
 - Igniter, bomb, white phosphorous, M23
 - Projectile, 4.2inch, mortar
 - Projectile, 40mm
 - Projectile, 57mm
 - Projectile, 60mm, mortar
 - Projectile, 75mm
 - Projectile, 81mm, mortar
 - Rocket, 35mm, subcaliber, practice, M73
 - Sensitively Fuzed MEC Study Area Grid
 - Sensitively Fuzed MEC Study Area
 - Range 48 Fan Area
 - Impact Area MRA
 - MRS-Ranges 43-48 South
 - Permanent Fuel Break

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 Track 3 Impact Area MRA
 MRS-Ranges 43-48 South
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Figure 12
 Munitions with Sensitive Fuzes
 Field Study Area



Note: Removed targets and MEC are only shown in Ranges 43-48 South and in WGBA within the Range 48 Fan Area



- ▲ Prior Sensitive Fuzed MEC Location
- Other Removed MEC
- +
- Removed Target
- Area of Additional Work (32 Acres)
- Range 48 Fan Area (192 Acres)
- WGBA Unburned Area (2013-14)
- Munitions with Sensitive Fuzes Field Study Location 2016 (11 Acres)
- Surface MEC Removal Area (2010 Wildfire Incident Response)
- Subsurface MEC Removal Grid
- MRS-Ranges 43-48 South
- Impact Area MRA

Technical Memorandum
 MEC Remedial Action
 Track 3 Impact Area MRA
 MRS-Ranges 43-48 South
 Former Fort Ord, California

Figure 13
 Area of Additional Surface and Near-Surface
 MEC Removal in Range 48 Fan Area



APPENDIX A
Types of Munitions by Range

Appendix A Types of Munitions by Range

Items Found or Used on Range	Range						
	43	44	44A	45	45A	47	48
Cap, blasting, electric, M6	X						
Cap, blasting, non-electric, M7	X						
Grenade, hand, fragmentation, M67	X			X			X
Grenade, hand, fragmentation, MK II	X			X			X
Grenade, hand, Illumination, MK I	X			X			X
Grenade, hand, practice, M69				X			X
Grenade, hand, practice, MK II	X			X			X
Grenade, hand, smoke, HC, AN-M8				X			X
Grenade, hand, smoke, M18 series	X			X			X
Grenade, hand, smoke, white phosphorous, M15	X			X			X
Grenade, rifle, antitank, M9 series							X
Grenade, rifle, antitank, practice, M11 series							X
Grenade, rifle, HEAT, M28							X
Grenade, rifle, smoke, M22 series							X
Grenade, rifle, smoke, M23 series							X
Grenade, rifle, smoke, white phosphorous, M19A1				X			X
Igniter, bomb, white phosphorous, M23							X
Mine, antipersonnel, M18A1 (claymore)				X			X
Missile, guided, practice, M231 (Dragon)		X					X
Projectile, 105mm, HE, M1	X						X
Projectile, 105mm, illumination, M314 series							X
Projectile, 105mm, smoke, M84 series	X						X
Projectile, 14.5mm, subcaliber, practice, M181 series				X	X		X
Projectile, 155mm, HE, MK I							X
Projectile, 155mm, shrapnel, MK I							X
Projectile, 22mm, subcaliber, practice, M744				X			X

Items Found or Used on Range	Range						
	43	44	44A	45	45A	47	48
Projectile, 37mm, armor piercing tracer, M51 series		X					X
Projectile, 37mm, HE, M54	X						X
Projectile, 37mm, HE, M63	X						X
Projectile, 37mm, HE, MK II	X						X
Projectile, 37mm, low explosive, MK I	X						X
Projectile, 37mm, low explosive, MK II	X						X
Projectile, 37mm, target practice, M55							X
Projectile, 37mm, target practice, M63 MOD1	X						X
Projectile, 4.2inch, mortar, HE, M3 series	X						X
Projectile, 4.2inch, mortar, HE, M329 series	X						X
Projectile, 4.2inch, mortar, smoke, white phosphorous, M328 series	X						X
Projectile, 40mm, cluster, white star, M585	X			X		X	X
Projectile, 40mm, HE dual-purpose, M430	X	X		X		X	X
Projectile, 40mm, HE dual-purpose, M433	X	X		X		X	X
Projectile, 40mm, HE, M381	X	X		X		X	X
Projectile, 40mm, HE, M383	X	X		X		X	X
Projectile, 40mm, HE, M384	X	X		X		X	X
Projectile, 40mm, HE, M386	X	X		X		X	X
Projectile, 40mm, HE, M397	X	X		X		X	X
Projectile, 40mm, HE, M406	X	X		X		X	X
Projectile, 40mm, parachute, illumination, M583 series	X			X		X	X
Projectile, 40mm, parachute, star, M662	X			X		X	X
Projectile, 40mm, Practice, (model unknown)	X	X		X		X	X
Projectile, 40mm, practice, M382	X	X		X		X	X
Projectile, 40mm, practice, M407A1	X	X		X		X	X

Items Found or Used on Range	Range						
	43	44	44A	45	45A	47	48
Projectile, 40mm, practice, M781		X		X		X	X
Projectile, 40mm, practice, XM383		X		X		X	X
Projectile, 40mm, smoke, M680 series	X			X		X	X
Projectile, 40mm, smoke, M713 series	X			X		X	X
Projectile, 57mm, armor piercing tracer, M70							X
Projectile, 57mm, HE antitank, M307							X
Projectile, 57mm, HE, M306 series	X						
Projectile, 57mm, target practice, M306 series							X
Projectile, 60mm, mortar, HE, M49 series	X			X			X
Projectile, 60mm, mortar, HE, M720	X			X			X
Projectile, 60mm, mortar, illumination, M721	X						X
Projectile, 60mm, mortar, illumination, M83 series	X						X
Projectile, 60mm, mortar, practice, M50 series	X						X
Projectile, 60mm, mortar, smoke, white phosphorous, M302	X						X
Projectile, 75mm, HE, M309	X						X
Projectile, 75mm, HE, M41A1	X						X
Projectile, 75mm, HE, M48	X						X
Projectile, 75mm, HE, MK I	X						X
Projectile, 75mm, practice (model unknown)							X
Projectile, 75mm, Shrapnel, MK I	X						X
Projectile, 76mm, armor piercing tracer, M339							X
Projectile, 76mm, HE, M352							X
Projectile, 81mm, mortar, Flare Shell, T-23							X
Projectile, 81mm, mortar, HE, M362	X			X			X
Projectile, 81mm, mortar, HE, M374 series	X			X			X

Items Found or Used on Range	Range						
	43	44	44A	45	45A	47	48
Projectile, 81mm, mortar, HE, M43 series	X			X			X
Projectile, 81mm, mortar, HE, M56	X			X			X
Projectile, 81mm, mortar, illumination, M301 series	X						X
Projectile, 81mm, mortar, illumination, M853A1	X						X
Projectile, 81mm, mortar, practice, M43 series	X			X			X
Projectile, 81mm, mortar, smoke, white phosphorous, M375 series	X						X
Projectile, 81mm, mortar, smoke, white phosphorous, M57 series	X						X
Projectile, 81mm, mortar, training, M68							X
Projectile, 84mm, HEAT, target practice, FFV 552							X
Projectile, 84mm, HEAT, M136 series (AT-4)	X						X
Projectile, 90mm, HEAT, M348	X	X	X				X
Projectile, 90mm, HEAT, M371A1	X	X	X				X
Rocket motors, M222/M223 (DRAGON)		X					
Rocket, 2.36inch, HE, M6	X	X					X
Rocket, 2.36inch, practice, M7		X					X
Rocket, 2.36inch, smoke, HC, T27	X	X					X
Rocket, 3.5inch, practice, M29 series		X					X
Rocket, 35mm, subcaliber, practice, M73	X	X	X	X			X
Rocket, 66mm, HEAT, M72 series	X	X	X	X			X
Rocket, 66mm, incendiary, TPA, M74		X	X	X			X
Signal, ground, rifle, parachute, M17 series							X
Signal, illumination, aircraft, AN-M37 series							X
Signal, illumination, AN-M43 series							X
Signal, illumination, ground, M125 series							X
Signal, illumination, ground, M126 series							X

Items Found or Used on Range	Range						
	43	44	44A	45	45A	47	48
Signal, illumination, ground, M21A1							X
Signal, illumination, ground, parachute, rifle, M19 series							X
Signal, illumination, M187							X
Signal, illumination, M51A1							X
Signal, smoke, ground, M166 series							X
Signal, smoke, ground, M62 series							X

APPENDIX B
Details of Munitions Discovered

Appendix B Details of Munitions Discovered

Appendix B - Technical Memorandum
MEC Remedial Action Track 3 Impact
Area MRA MRS-Ranges 43-48 South
Former Fort Ord, California

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Rocket, 2.36inch, practice, M7	738	0	ISD	3	10/9/1992
Rocket, 35mm, subcaliber, practice, M73	697	0	ISD	1	11/17/1992
Projectile, 40mm, high explosive, M381	696	0	ISD	1	11/17/1992
Rocket, 66mm, high explosive antitank, M72 series	695	0	ISD	1	11/17/1992
Projectile, 60mm, mortar, high explosive, M49 series	634	0	ISD	1	11/19/1992
Rocket, 2.36inch, practice, M7	635	0	ISD	3	2/24/1993
Projectile, 60mm, mortar, illumination, M83 series	737	0	ISD	1	2/24/1993
SIGL, ILLUM, HAND, FIRED (Model Unknown)*	694	0	ISD	7	3/24/1993
Simulator, flash artillery, M21	631	0	ISD	2	4/11/1993
Projectile, 40mm, high explosive, M381	684	0	ISD	1	9/17/1993
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	685	0	UXO	2	9/17/1993
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	690	0	UXO	1	3/11/1996
Projectile, 81mm, mortar, smoke, white phosphorous, M57 series	77923	12	UXO	1	11/10/1997
Projectile, 60mm, mortar, high explosive, M49 series	77803	0	UXO	1	11/12/1997
Fuze, rocket, base detonating, M404	77714	0	UXO	2	11/12/1997
Projectile, 60mm, mortar, high explosive, M49 series	77738	6	UXO	1	11/17/1997
Projectile, 60mm, mortar, high explosive, M49 series	77822	6	UXO	1	11/17/1997
Projectile, 60mm, mortar, high explosive, M49 series	78105	12	UXO	1	11/17/1997
Projectile, 81mm, mortar, practice, M43 series	77711	6	UXO	1	11/17/1997
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	78099	0	UXO	1	11/17/1997
Mine, antipersonnel, M18A1 (Claymore)	78102	0	UXO	1	11/17/1997
Projectile, 60mm, mortar, high explosive, M49 series	77784	12	UXO	2	11/18/1997
Projectile, 81mm, mortar, high explosive, M43 series	77747	24	UXO	1	11/18/1997
Projectile, 81mm, mortar, high explosive, M43 series	78097	24	UXO	1	11/18/1997
Projectile, 57mm, high explosive, M306 series	77761	4	UXO	1	11/19/1997
Projectile, 60mm, mortar, high explosive, M49 series	77727	4	UXO	1	11/19/1997
Projectile, 81mm, mortar, practice, M43 series	77701	12	UXO	3	11/19/1997
Projectile, 81mm, mortar, practice, M43 series	77709	12	UXO	1	11/19/1997
Projectile, 81mm, mortar, practice, M43 series	77812	12	UXO	3	11/19/1997
Fuze, projectile, point detonating, M48 series	77702	12	UXO	1	11/19/1997
Projectile, 60mm, mortar, high explosive, M49 series	77687	6	UXO	3	11/20/1997
Projectile, 81mm, mortar, practice, M43 series	77763	12	UXO	6	11/20/1997
Projectile, 81mm, mortar, practice, M43 series	78095	12	UXO	6	11/20/1997
Projectile, 60mm, mortar, high explosive, M49 series	77793	0	UXO	2	11/24/1997
Projectile, 81mm, mortar, practice, M43 series	77642	12	UXO	2	11/24/1997
Projectile, 81mm, mortar, practice, M43 series	77662	6	UXO	4	11/24/1997
Projectile, 81mm, mortar, practice, M43 series	77736	6	UXO	2	11/24/1997
Projectile, 81mm, mortar, practice, M43 series	77775	6	UXO	4	11/24/1997
Projectile, 81mm, mortar, practice, M43 series	77783	12	UXO	2	11/24/1997
Projectile, 81mm, mortar, practice, M43 series	78092	12	UXO	2	11/24/1997
Projectile, 60mm, mortar, high explosive, M49 series	77406	10	UXO	1	11/25/1997
Projectile, 60mm, mortar, high explosive, M49 series	77664	12	UXO	1	11/25/1997
Projectile, 60mm, mortar, high explosive, M49 series	77691	10	UXO	1	11/25/1997
Projectile, 60mm, mortar, high explosive, M49 series	78112	10	UXO	1	11/25/1997
Projectile, 60mm, mortar, high explosive, M49 series	78117	12	UXO	1	11/25/1997
Projectile, 81mm, mortar, high explosive, M43 series	77407	12	UXO	2	11/25/1997

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 81mm, mortar, high explosive, M43 series	77690	24	UXO	2	11/25/1997
Projectile, 81mm, mortar, high explosive, M43 series	77749	3	UXO	2	11/25/1997
Projectile, 81mm, mortar, high explosive, M43 series	78114	24	UXO	2	11/25/1997
Projectile, 81mm, mortar, high explosive, M43 series	78115	3	UXO	2	11/25/1997
Projectile, 81mm, mortar, high explosive, M43 series	78116	20	UXO	1	11/25/1997
Projectile, 81mm, mortar, high explosive, M43 series	78118	18	UXO	2	11/25/1997
Projectile, 81mm, mortar, practice, M43 series	77682	18	UXO	2	11/25/1997
Projectile, 81mm, mortar, practice, M43 series	77731	20	UXO	1	11/25/1997
Projectile, 81mm, mortar, high explosive, M43 series	77739	6	UXO	7	11/26/1997
Projectile, 81mm, mortar, high explosive, M43 series	77829	12	UXO	3	11/26/1997
Rocket, 35mm, subcaliber, practice, M73	77828	12	UXO	1	12/1/1997
Projectile, 60mm, mortar, high explosive, M49 series	77765	12	UXO	1	12/1/1997
Projectile, 81mm, mortar, practice, M43 series	77730	12	UXO	3	12/1/1997
Projectile, 81mm, mortar, practice, M43 series	77766	12	UXO	4	12/1/1997
Projectile, 60mm, mortar, practice, M50 series	77732	18	UXO	2	12/2/1997
Projectile, 81mm, mortar, high explosive, M43 series	77750	24	UXO	2	12/2/1997
Projectile, 81mm, mortar, high explosive, M43 series	78113	24	UXO	2	12/2/1997
Projectile, 81mm, mortar, practice, M43 series	77671	12	UXO	2	12/2/1997
Projectile, 81mm, mortar, practice, M43 series	77751	24	UXO	8	12/2/1997
Projectile, 81mm, mortar, practice, M43 series	77830	12	UXO	10	12/2/1997
Projectile, 81mm, mortar, practice, M43 series	78093	24	UXO	8	12/2/1997
Fuze, rocket, base detonating, M404	77785	12	UXO	1	12/2/1997
Projectile, 60mm, mortar, high explosive, M49 series	77728	18	UXO	4	12/3/1997
Projectile, 60mm, mortar, practice, M50 series	77710	24	UXO	14	12/3/1997
Projectile, 60mm, mortar, practice, M50 series	78104	24	UXO	14	12/3/1997
Projectile, 75mm, high explosive, M48	77729	12	UXO	1	12/3/1997
Projectile, 75mm, high explosive, M48	78106	12	UXO	1	12/3/1997
Projectile, 81mm, mortar, high explosive, M43 series	78101	18	UXO	4	12/3/1997
Projectile, 81mm, mortar, practice, M43 series	77796	24	UXO	22	12/3/1997
Projectile, 81mm, mortar, practice, M43 series	78103	24	UXO	22	12/3/1997
Fuze, projectile, point detonating, M48 series	77681	6	UXO	1	12/3/1997
Fuze, projectile, point detonating, M48 series	78107	6	UXO	1	12/3/1997
Projectile, 60mm, mortar, high explosive, M49 series	77362	18	UXO	1	12/31/1997
Projectile, 81mm, mortar, high explosive, M43 series	77361	12	UXO	1	12/31/1997
Projectile, 81mm, mortar, high explosive, M43 series	77363	18	UXO	1	12/31/1997
Projectile, 60mm, mortar, high explosive, M49 series	77358	6	UXO	1	1/5/1998
Projectile, 60mm, mortar, high explosive, M49 series	77389	8	UXO	2	1/5/1998
Projectile, 60mm, mortar, high explosive, M49 series	77391	12	UXO	1	1/5/1998
Projectile, 60mm, mortar, high explosive, M49 series	77393	6	UXO	2	1/5/1998
Projectile, 60mm, mortar, high explosive, M49 series	77394	4	UXO	1	1/5/1998
Projectile, 60mm, mortar, high explosive, M49 series	77396	8	UXO	2	1/5/1998
Projectile, 60mm, mortar, high explosive, M49 series	77404	14	UXO	1	1/5/1998
Projectile, 60mm, mortar, practice, M50 series	77359	12	UXO	2	1/5/1998
Projectile, 81mm, mortar, high explosive, M43 series	77360	12	UXO	1	1/5/1998
Projectile, 81mm, mortar, high explosive, M43 series	77376	12	UXO	2	1/5/1998
Projectile, 81mm, mortar, high explosive, M43 series	77380	24	UXO	1	1/5/1998
Projectile, 60mm, mortar, high explosive, M49 series	77373	6	UXO	1	1/6/1998
Projectile, 60mm, mortar, high explosive, M49 series	77374	9	UXO	2	1/6/1998
Projectile, 60mm, mortar, high explosive, M49 series	77377	6	UXO	2	1/6/1998
Projectile, 60mm, mortar, high explosive, M49 series	77384	6	UXO	1	1/6/1998

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 60mm, mortar, high explosive, M49 series	77385	1	UXO	1	1/6/1998
Projectile, 81mm, mortar, high explosive, M362	77375	2	UXO	1	1/6/1998
Projectile, 81mm, mortar, high explosive, M43 series	77372	18	UXO	1	1/6/1998
Projectile, 81mm, mortar, high explosive, M43 series	77398	6	UXO	1	1/6/1998
Projectile, 81mm, mortar, high explosive, M43 series	77399	12	UXO	1	1/6/1998
Projectile, 81mm, mortar, high explosive, M43 series	77400	8	UXO	1	1/6/1998
Projectile, 81mm, mortar, high explosive, M43 series	77401	30	UXO	1	1/6/1998
Projectile, 81mm, mortar, high explosive, M43 series	77402	3	UXO	1	1/6/1998
Projectile, 81mm, mortar, high explosive, M43 series	77403	18	UXO	2	1/6/1998
Projectile, 60mm, mortar, high explosive, M49 series	77365	6	UXO	1	1/7/1998
Projectile, 60mm, mortar, high explosive, M49 series	77413	6	UXO	1	1/7/1998
Projectile, 60mm, mortar, high explosive, M49 series	77414	8	UXO	1	1/7/1998
Projectile, 60mm, mortar, high explosive, M49 series	77417	8	UXO	1	1/7/1998
Projectile, 60mm, mortar, high explosive, M49 series	77419	8	UXO	1	1/7/1998
Projectile, 81mm, mortar, high explosive, M43 series	77357	18	UXO	1	1/7/1998
Projectile, 81mm, mortar, high explosive, M43 series	77415	12	UXO	1	1/7/1998
Projectile, 81mm, mortar, high explosive, M43 series	77418	19	UXO	1	1/7/1998
Projectile, 57mm, high explosive, M306 series	77420	1	UXO	1	1/8/1998
Projectile, 60mm, mortar, high explosive, M49 series	77388	12	UXO	1	1/8/1998
Projectile, 81mm, mortar, high explosive, M43 series	77381	12	UXO	1	1/8/1998
Projectile, 81mm, mortar, high explosive, M43 series	77382	6	UXO	1	1/8/1998
Projectile, 81mm, mortar, high explosive, M43 series	77395	8	UXO	1	1/8/1998
Projectile, 4.2inch, mortar, high explosive, M3 series	77370	17	UXO	1	1/13/1998
Projectile, 60mm, mortar, high explosive, M49 series	77371	6	UXO	1	1/13/1998
Projectile, 60mm, mortar, high explosive, M49 series	77383	8	UXO	1	1/13/1998
Projectile, 81mm, mortar, high explosive, M362	77776	8	UXO	1	1/13/1998
Projectile, 81mm, mortar, high explosive, M43 series	77717	10	UXO	1	1/13/1998
Projectile, 81mm, mortar, practice, M43 series	77368	6	UXO	1	1/13/1998
Projectile, 81mm, mortar, practice, M43 series	77663	18	UXO	1	1/13/1998
Projectile, 81mm, mortar, practice, M43 series	77797	6	UXO	1	1/13/1998
Projectile, 57mm, high explosive, M306 series	77386	12	UXO	1	1/14/1998
Projectile, 57mm, high explosive, M306 series	78110	12	UXO	1	1/14/1998
Projectile, 60mm, mortar, high explosive, M49 series	77356	2	UXO	1	1/14/1998
Projectile, 60mm, mortar, high explosive, M49 series	77364	10	UXO	1	1/14/1998
Projectile, 60mm, mortar, high explosive, M49 series	77378	8	UXO	1	1/14/1998
Projectile, 60mm, mortar, high explosive, M49 series	78094	2	UXO	1	1/14/1998
Projectile, 60mm, mortar, high explosive, M49 series	78109	8	UXO	1	1/14/1998
Projectile, 57mm, high explosive, M306 series	77408	1	UXO	2	1/20/1998
Projectile, 105mm, high explosive, M1	819	0	ISD	1	4/13/2000
Projectile, 57mm, high explosive, M306 series	817	0	ISD	1	4/13/2000
Projectile, 60mm, mortar, high explosive, M49 series	813	0	ISD	1	4/13/2000
Projectile, 60mm, mortar, high explosive, M49 series	814	0	ISD	1	4/13/2000
Projectile, 60mm, mortar, high explosive, M49 series	820	0	ISD	1	4/13/2000
Projectile, 60mm, mortar, high explosive, M49 series	821	0	ISD	1	4/13/2000
Projectile, 75mm, shrapnel, MK I	812	0	ISD	1	4/13/2000
Projectile, 81mm, mortar, high explosive, M43 series	815	0	ISD	1	4/13/2000
Projectile, 81mm, mortar, high explosive, M43 series	816	0	ISD	1	4/13/2000
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	818	0	ISD	1	4/13/2000
Projectile, 57mm, high explosive, M306 series	780	0	ISD	1	4/17/2000

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 57mm, high explosive, M306 series	782	0	ISD	1	4/17/2000
Projectile, 57mm, high explosive, M306 series	790	0	ISD	1	4/17/2000
Projectile, 60mm, mortar, high explosive, M49 series	781	0	ISD	1	4/17/2000
75MM (Model Unknown)*	788	0	ISD	1	4/17/2000
Projectile, 81mm, mortar (model unknown)	783	0	ISD	1	4/17/2000
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	779	0	ISD	1	4/17/2000
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	784	0	ISD	1	4/17/2000
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	791	0	ISD	1	4/17/2000
Projectile, 57mm, high explosive, M306 series	16175	0	UXO	1	3/14/2001
Projectile, 81mm, mortar, high explosive, M43 series	16198	0	UXO	1	3/14/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	16170	0	UXO	1	3/14/2001
Rocket, 35mm, subcaliber, practice, M73	84166	0	UXO	1	9/4/2001
Projectile, 40mm, high explosive, M381	84163	0	UXO	1	9/4/2001
Rocket, 66mm, high explosive antitank, M72 series	84164	0	UXO	1	9/4/2001
Projectile, 155mm, illumination, M485 series	83951	0	UXO	1	9/24/2001
Rocket, 35mm, subcaliber, practice, M73	83603	0	UXO	1	9/24/2001
Rocket, 35mm, subcaliber, practice, M73	83604	0	UXO	1	9/24/2001
Rocket, 35mm, subcaliber, practice, M73	83606	0	UXO	1	9/24/2001
Rocket, 35mm, subcaliber, practice, M73	83607	0	UXO	1	9/24/2001
Rocket, 35mm, subcaliber, practice, M73	83609	0	UXO	1	9/24/2001
Rocket, 35mm, subcaliber, practice, M73	83610	0	UXO	1	9/24/2001
Rocket, 35mm, subcaliber, practice, M73	83611	0	UXO	1	9/24/2001
Rocket, 35mm, subcaliber, practice, M73	83614	0	UXO	1	9/24/2001
Rocket, 35mm, subcaliber, practice, M73	83703	0	UXO	1	9/24/2001
Projectile, 57mm, high explosive, M306 series	83956	0	UXO	1	9/24/2001
Projectile, 60mm, mortar, high explosive, M49 series	83613	0	UXO	1	9/24/2001
Rocket, 66mm, high explosive antitank, M72 series	83605	0	UXO	1	9/24/2001
Projectile, 81mm, mortar, high explosive, M43 series	83953	0	UXO	1	9/24/2001
Projectile, 81mm, mortar, high explosive, M43 series	83954	0	UXO	1	9/24/2001
Projectile, 81mm, mortar, high explosive, M43 series	83955	0	UXO	1	9/24/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	83705	0	UXO	1	9/24/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	83952	0	UXO	1	9/24/2001
Rocket motors, M222/M223 (DRAGON)	83612	0	UXO	1	9/24/2001
Rocket, 35mm, subcaliber, practice, M73	83615	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83616	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83621	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83622	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83623	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83624	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83625	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83626	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83627	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83628	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83633	0	UXO	1	9/25/2001

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Rocket, 35mm, subcaliber, practice, M73	83636	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83637	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83640	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83641	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83642	0	UXO	1	9/25/2001
Rocket, 35mm, subcaliber, practice, M73	83646	0	UXO	1	9/25/2001
Projectile, 4.2inch, mortar, high explosive, M329 series	83643	0	UXO	1	9/25/2001
Projectile, 60mm, mortar, high explosive, M49 series	83647	0	UXO	1	9/25/2001
Projectile, 60mm, mortar, high explosive, M49 series	83648	0	UXO	1	9/25/2001
Rocket, 66mm, high explosive antitank, M72 series	83635	0	UXO	1	9/25/2001
Rocket, 66mm, high explosive antitank, M72 series	83645	0	UXO	1	9/25/2001
Projectile, 57mm, high explosive, M306 series	83710	0	UXO	1	9/26/2001
Projectile, 57mm, high explosive, M306 series	83711	0	UXO	1	9/26/2001
Projectile, 75mm, shrapnel, MK I	83715	0	UXO	1	9/26/2001
Projectile, 75mm, shrapnel, MK I	83716	0	UXO	1	9/26/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	83719	0	UXO	1	9/26/2001
Rocket, 35mm, subcaliber, practice, M73	83736	0	UXO	1	9/27/2001
Projectile, 57mm, high explosive, M306 series	83673	0	UXO	1	9/27/2001
Projectile, 57mm, high explosive, M306 series	83957	0	UXO	1	9/27/2001
Projectile, 60mm, mortar, high explosive, M49 series	83726	0	UXO	1	9/27/2001
Projectile, 60mm, mortar, high explosive, M49 series	83749	0	UXO	1	9/27/2001
Projectile, 60mm, mortar, high explosive, M49 series	83753	0	UXO	1	9/27/2001
Projectile, 60mm, mortar, high explosive, M49 series	83763	0	UXO	1	9/27/2001
Projectile, 60mm, mortar, high explosive, M49 series	83764	0	UXO	1	9/27/2001
Projectile, 60mm, mortar, high explosive, M49 series	83765	0	UXO	1	9/27/2001
Projectile, 60mm, mortar, high explosive, M49 series	83776	0	UXO	1	9/27/2001
Projectile, 60mm, mortar, high explosive, M49 series	83860	0	UXO	1	9/27/2001
Rocket, 66mm, high explosive antitank, M72 series	83754	0	UXO	1	9/27/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	83758	0	UXO	1	9/27/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	83777	0	UXO	1	9/27/2001
Rocket motors, M222/M223 (DRAGON)	83725	0	UXO	1	9/27/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	83961	0	UXO	1	10/1/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	83964	0	UXO	1	10/1/2001
Projectile, 60mm, mortar, high explosive, M49 series	83861	0	UXO	1	10/3/2001
Projectile, 60mm, mortar, high explosive, M49 series	83865	0	UXO	1	10/3/2001
Projectile, 60mm, mortar, high explosive, M49 series	83873	0	UXO	1	10/3/2001
Projectile, 75mm, high explosive, M48	83868	0	UXO	1	10/3/2001
Cartridge, 40mm, practice, M781	83970	0	DMM	1	10/4/2001
Projectile, 40mm, practice, M918	83661	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83662	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83663	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83664	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83665	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83666	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83667	0	UXO	1	10/9/2001

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 40mm, practice, M918	83668	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83669	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83670	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83671	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83672	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83676	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83677	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83678	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83679	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83680	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83681	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83682	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83683	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83684	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83685	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83686	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83687	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83688	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83689	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83690	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83691	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83692	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83693	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83694	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83695	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83696	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83697	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83698	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83699	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83701	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83702	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83974	0	UXO	1	10/9/2001
Projectile, 40mm, practice, M918	83975	0	UXO	1	10/9/2001
Projectile, 57mm, high explosive, M306 series	83972	0	UXO	1	10/9/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	83877	0	UXO	1	10/9/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	83878	0	UXO	1	10/9/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	83971	0	UXO	1	10/9/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	83973	0	UXO	1	10/9/2001
Projectile, 37mm, high explosive, M63	83984	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive antitank, M307	83976	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	83977	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	83978	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	83979	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	83980	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	83981	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	83982	0	UXO	1	10/10/2001

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 57mm, high explosive, M306 series	83983	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	83985	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	83986	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	83987	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	83988	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	83989	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	83990	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	83991	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	83993	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	84006	0	UXO	1	10/10/2001
Projectile, 57mm, high explosive, M306 series	84007	0	UXO	1	10/10/2001
Projectile, 60mm, mortar, high explosive, M49 series	83992	0	UXO	1	10/10/2001
Projectile, 81mm, mortar, high explosive, M43 series	83880	0	UXO	1	10/10/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	84005	0	UXO	1	10/10/2001
Rocket, 35mm, subcaliber, practice, M73	84010	0	UXO	1	10/11/2001
Projectile, 57mm, high explosive, M306 series	84011	0	UXO	1	10/11/2001
Projectile, 57mm, high explosive, M306 series	84015	0	UXO	1	10/11/2001
Projectile, 57mm, high explosive, M306 series	84017	0	UXO	1	10/11/2001
Projectile, 57mm, high explosive, M306 series	84018	0	UXO	1	10/11/2001
Projectile, 57mm, high explosive, M306 series	84019	0	UXO	1	10/11/2001
Projectile, 57mm, high explosive, M306 series	84024	0	UXO	1	10/11/2001
Projectile, 57mm, high explosive, M306 series	84025	0	UXO	1	10/11/2001
Projectile, 57mm, high explosive, M306 series	84027	0	UXO	1	10/11/2001
Projectile, 57mm, high explosive, M306 series	84028	0	UXO	1	10/11/2001
Projectile, 57mm, high explosive, M306 series	84029	0	UXO	1	10/11/2001
Projectile, 60mm, mortar, high explosive, M49 series	84008	0	UXO	1	10/11/2001
Projectile, 60mm, mortar, high explosive, M49 series	84021	0	UXO	1	10/11/2001
Projectile, 75mm, high explosive, M41A1	84023	0	UXO	1	10/11/2001
Projectile, 75mm, high explosive, M41A1	84026	0	UXO	1	10/11/2001
Projectile, 75mm, high explosive, M41A1	84030	0	UXO	1	10/11/2001
Projectile, 81mm, mortar, high explosive, M374 series	84013	0	UXO	1	10/11/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	83887	0	UXO	1	10/11/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	84009	0	UXO	1	10/11/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	84012	0	UXO	1	10/11/2001
Projectile, 90mm, high explosive antitank, M371A1	84016	0	UXO	1	10/11/2001
Grenade, hand, smoke, white phosphorous, M15	83886	0	UXO	1	10/11/2001
Projectile, 57mm, high explosive, M306 series	84031	0	UXO	1	10/15/2001
Projectile, 57mm, high explosive, M306 series	84032	0	UXO	1	10/15/2001
Projectile, 57mm, high explosive, M306 series	84034	0	UXO	1	10/15/2001
Projectile, 57mm, high explosive, M306 series	84037	0	UXO	1	10/15/2001
Projectile, 57mm, high explosive, M306 series	84044	0	UXO	1	10/15/2001
Projectile, 57mm, high explosive, M306 series	84046	0	UXO	1	10/15/2001
Projectile, 57mm, high explosive, M306 series	84048	0	UXO	1	10/15/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	84045	0	UXO	1	10/15/2001

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	84049	0	UXO	1	10/15/2001
Projectile, 90mm, high explosive antitank, M348	84035	0	UXO	1	10/15/2001
Projectile, 40mm, practice, M918	83889	0	UXO	1	10/16/2001
Projectile, 57mm, high explosive, M306 series	84052	0	UXO	1	10/16/2001
Projectile, 90mm, high explosive antitank, M348	83890	0	UXO	1	10/16/2001
Projectile, 81mm, mortar, high explosive, M43 series	83892	0	UXO	1	10/17/2001
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	83891	0	UXO	1	10/17/2001
Projectile, 105mm, high explosive, M1	84001	0	UXO	1	10/9/2002
Projectile, 57mm, high explosive, M306 series	84002	0	UXO	2	10/9/2002
Projectile, 60mm, mortar, high explosive, M49 series	84000	0	UXO	1	10/9/2002
Rocket, 66mm, high explosive antitank, M72 series	83998	0	UXO	1	10/9/2002
Rocket, 66mm, high explosive antitank, M72 series	83999	0	UXO	1	10/9/2002
Rocket, 35mm, subcaliber, practice, M73	317810	6	UXO	1	9/18/2003
Rocket, 35mm, subcaliber, practice, M73	317811	3	UXO	1	9/18/2003
Rocket, 35mm, subcaliber, practice, M73	317812	4	UXO	1	9/18/2003
Rocket, 35mm, subcaliber, practice, M73	317813	4	UXO	1	9/18/2003
Rocket, 35mm, subcaliber, practice, M73	317814	2	UXO	1	9/18/2003
Rocket, 35mm, subcaliber, practice, M73	317818	8	UXO	1	9/18/2003
Rocket, 35mm, subcaliber, practice, M73	317820	3	UXO	1	9/18/2003
Rocket, 35mm, subcaliber, practice, M73	317821	3	UXO	1	9/18/2003
Rocket, 35mm, subcaliber, practice, M73	317822	2	UXO	1	9/18/2003
Rocket, 35mm, subcaliber, practice, M73	317921	4	UXO	1	9/18/2003
Rocket, 35mm, subcaliber, practice, M73	317922	2	UXO	1	9/18/2003
Projectile, 40mm, high explosive, M381	317819	6	UXO	1	9/18/2003
Rocket, 35mm, subcaliber, practice, M73	317728	2	UXO	1	9/22/2003
Rocket, 35mm, subcaliber, practice, M73	317759	1	UXO	1	9/22/2003
Rocket, 35mm, subcaliber, practice, M73	317760	6	UXO	1	9/22/2003
Projectile, 40mm, high explosive, M381	317761	3	UXO	1	9/22/2003
Rocket, 2.36inch, high explosive antitank, M6 Series	317762	16	UXO	1	9/23/2003
Rocket, 2.36inch, high explosive antitank, M6 Series	317763	12	UXO	1	9/23/2003
Grenade, rifle, high explosive antitank, M28	317765	14	UXO	1	9/23/2003
Rocket, 35mm, subcaliber, practice, M73	317787	3	UXO	1	9/25/2003
Rocket, 35mm, subcaliber, practice, M73	317789	8	UXO	1	9/25/2003
Rocket, 35mm, subcaliber, practice, M73	317793	2	UXO	1	9/25/2003
Rocket, 35mm, subcaliber, practice, M73	317795	4	UXO	1	9/25/2003
Rocket, 35mm, subcaliber, practice, M73	317796	8	UXO	1	9/25/2003
Projectile, 60mm, mortar, high explosive, M49 series	317788	12	UXO	1	9/25/2003
Projectile, 60mm, mortar, high explosive, M49 series	317791	18	UXO	1	9/25/2003
Projectile, 40mm, high explosive, M383	317806	3	UXO	1	9/29/2003
Projectile, 40mm, high explosive, M406	317809	6	UXO	1	9/29/2003
Projectile, 60mm, mortar, high explosive, M49 series	317802	12	UXO	1	9/29/2003
Projectile, 60mm, mortar, high explosive, M49 series	317807	8	UXO	1	9/29/2003
Rocket, 35mm, subcaliber, practice, M73	317923	12	UXO	1	9/30/2003
Rocket, 35mm, subcaliber, practice, M73	317924	0	UXO	1	9/30/2003
Projectile, 60mm, mortar, high explosive, M49 series	317925	6	UXO	1	9/30/2003
Projectile, 60mm, mortar, high explosive, M49 series	317926	8	UXO	1	9/30/2003
Projectile, 60mm, mortar, high explosive, M49 series	317930	8	UXO	1	10/1/2003
Projectile, 40mm, high explosive, M406	317942	3	UXO	1	10/2/2003

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Rocket, 35mm, subcaliber, practice, M73	317772	2	UXO	1	10/6/2003
Projectile, 40mm, high explosive, M406	317781	5	UXO	1	10/6/2003
Projectile, 60mm, mortar, high explosive, M49 series	317768	12	UXO	1	10/6/2003
Projectile, 60mm, mortar, high explosive, M49 series	317774	6	UXO	1	10/6/2003
Projectile, 60mm, mortar, high explosive, M49 series	317776	8	UXO	1	10/6/2003
Projectile, 60mm, mortar, high explosive, M49 series	317777	14	UXO	1	10/6/2003
Projectile, 60mm, mortar, high explosive, M49 series	317783	18	UXO	1	10/6/2003
Projectile, 60mm, mortar, practice, M50 series	317778	8	UXO	1	10/6/2003
Projectile, 60mm, mortar, practice, M50 series	317779	12	UXO	1	10/6/2003
Rocket, 66mm, high explosive antitank, M72 series	317773	0	UXO	1	10/6/2003
Projectile, 4.2inch, mortar, high explosive, M3 series	317797	32	UXO	1	10/7/2003
Projectile, 57mm, high explosive, M306 series	317798	3	UXO	1	10/7/2003
Projectile, 57mm, high explosive, M306 series	317799	6	UXO	1	10/7/2003
Projectile, 57mm, high explosive, M306 series	317739	10	UXO	1	10/8/2003
Projectile, 57mm, high explosive, M306 series	317740	2	UXO	1	10/8/2003
Rocket, 35mm, subcaliber, practice, M73	318069	18	UXO	3	10/9/2003
Projectile, 60mm, mortar, high explosive, M49 series	318071	6	UXO	1	10/9/2003
Projectile, 60mm, mortar, high explosive, M49 series	318073	12	UXO	1	10/9/2003
Projectile, 60mm, mortar, practice, M50 series	318077	1	UXO	1	10/9/2003
Projectile, 60mm, mortar, practice, M50 series	318081	12	UXO	1	10/9/2003
Projectile, 81mm, mortar, practice, M43 series	318068	4	UXO	1	10/9/2003
Projectile, 57mm, high explosive, M306 series	318292	6	UXO	1	10/14/2003
Projectile, 60mm, mortar, high explosive, M49 series	318296	6	UXO	1	10/14/2003
Projectile, 81mm, mortar, high explosive, M374 series	318290	20	UXO	1	10/14/2003
Projectile, 60mm, mortar, high explosive, M49 series	318049	6	UXO	1	10/15/2003
Projectile, 60mm, mortar, high explosive, M49 series	318051	12	UXO	1	10/15/2003
Projectile, 60mm, mortar, high explosive, M49 series	318052	12	UXO	1	10/15/2003
Projectile, 60mm, mortar, high explosive, M49 series	318054	8	UXO	1	10/15/2003
Projectile, 60mm, mortar, high explosive, M49 series	318056	6	UXO	1	10/15/2003
Projectile, 60mm, mortar, high explosive, M49 series	318057	3	UXO	1	10/15/2003
Projectile, 81mm, mortar, high explosive, M43 series	318053	6	UXO	1	10/15/2003
Projectile, 60mm, mortar, high explosive, M49 series	318062	4	UXO	1	10/16/2003
Projectile, 60mm, mortar, high explosive, M49 series	318065	2	UXO	1	10/16/2003
Projectile, 60mm, mortar, high explosive, M49 series	317743	8	UXO	1	10/20/2003
Projectile, 60mm, mortar, high explosive, M49 series	317744	12	UXO	1	10/20/2003
Projectile, 60mm, mortar, high explosive, M49 series	317748	8	UXO	1	10/20/2003
Projectile, 60mm, mortar, high explosive, M49 series	317749	12	UXO	1	10/20/2003
Projectile, 60mm, mortar, high explosive, M49 series	317750	1	UXO	1	10/20/2003
Projectile, 81mm, mortar, practice, M43 series	317745	8	UXO	1	10/20/2003
Fuze, projectile, point detonating, M52 series	317752	0	UXO	1	10/20/2003
Projectile, 60mm, mortar, high explosive, M49 series	318085	3	UXO	1	10/22/2003
Projectile, 60mm, mortar, high explosive, M49 series	318086	6	UXO	1	10/22/2003
Projectile, 60mm, mortar, high explosive, M49 series	318087	4	UXO	1	10/22/2003
Projectile, 60mm, mortar, high explosive, M49 series	318872	4	UXO	1	10/23/2003
Projectile, 75mm, high explosive, M48	318873	8	UXO	1	10/23/2003
Projectile, 40mm, practice, (model unknown)	318432	0	UXO	1	11/12/2003
Grenade, hand, smoke, M18 series	270361	1	UXO	1	11/13/2003
Rocket motors, M222/M223 (DRAGON)	314081	0	UXO	1	11/13/2003
Signal, illumination, AN-M43 series	302570	0	UXO	1	11/13/2003
Projectile, 40mm, practice, (model unknown)	302571	0	UXO	1	11/17/2003

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 40mm, practice, (model unknown)	302572	0	UXO	1	11/17/2003
Projectile, 40mm, smoke, M713 series	270363	0	UXO	5	11/18/2003
Projectile, 60mm, mortar, high explosive, M49 series	253236	1	UXO	1	11/18/2003
Projectile, 60mm, mortar, high explosive, M49 series	270362	1	UXO	1	11/18/2003
Projectile, 105mm, smoke, M84 series	265650	0	UXO	1	11/19/2003
Rocket, 35mm, subcaliber, practice, M73	294639	0	UXO	1	11/19/2003
Projectile, 40mm, practice, (model unknown)	294638	0	UXO	5	11/19/2003
Projectile, 60mm, mortar, high explosive, M49 series	265649	0	UXO	1	11/19/2003
Rocket, 66mm, high explosive antitank, M72 series	309497	0	UXO	1	11/19/2003
Flare, surface, trip, M49 series	294637	0	UXO	3	11/19/2003
Flare, surface, trip, M49 series	294640	0	UXO	1	11/20/2003
Rocket, 35mm, subcaliber, practice, M73	265651	0	UXO	3	11/24/2003
Projectile, 40mm, high explosive dual-purpose, M433	265654	0	UXO	1	11/24/2003
Projectile, 40mm, high explosive dual-purpose, M433	265655	0	UXO	1	11/24/2003
Projectile, 60mm, mortar, high explosive, M49 series	265652	0	UXO	1	11/24/2003
Ordnance components	265653	0	UXO	1	11/24/2003
Rocket, 35mm, subcaliber, practice, M73	252353	0	UXO	1	11/25/2003
Rocket, 35mm, subcaliber, practice, M73	265656	0	UXO	1	11/25/2003
Rocket, 35mm, subcaliber, practice, M73	265657	0	UXO	1	11/25/2003
Cartridge, 40mm, practice, M781	314278	0	DMM	1	11/25/2003
Projectile, 75mm, high explosive, M309	252352	0	UXO	1	11/25/2003
Projectile, 81mm, mortar, high explosive, M362	252354	0	UXO	2	11/25/2003
Projectile, 81mm, mortar, high explosive, M362	252355	0	UXO	10	11/25/2003
Projectile, 81mm, mortar, high explosive, M374 series	252351	0	UXO	1	11/25/2003
Rocket, 2.36inch, high explosive antitank, M6 Series	303136	0	UXO	1	11/26/2003
Rocket, 2.36inch, high explosive antitank, M6 Series	303140	0	UXO	1	11/26/2003
Rocket, 35mm, subcaliber, practice, M73	303137	0	UXO	1	11/26/2003
Projectile, 40mm, cluster, white star, M585	303144	0	UXO	1	11/26/2003
Projectile, 57mm, high explosive, M306 series	252358	0	UXO	1	11/26/2003
Projectile, 57mm, high explosive, M306 series	260335	0	UXO	6	11/26/2003
Projectile, 60mm, mortar, high explosive, M49 series	252357	0	UXO	1	11/26/2003
Projectile, 60mm, mortar, high explosive, M49 series	302355	0	UXO	1	11/26/2003
Projectile, 75mm, high explosive, M309	260336	0	UXO	1	11/26/2003
Projectile, 75mm, high explosive, M48	252360	0	UXO	1	11/26/2003
Cap, blasting, non-electric, M7	303130	0	DMM	1	11/26/2003
Rocket, 35mm, subcaliber, practice, M73	250352	0	UXO	2	12/1/2003
Rocket, 35mm, subcaliber, practice, M73	271015	0	UXO	1	12/1/2003
Projectile, 37mm, high explosive, M63	250353	0	UXO	1	12/1/2003
Projectile, 40mm, high explosive, M383	271014	0	UXO	1	12/1/2003
Projectile, 57mm, high explosive, M306 series	250351	0	UXO	6	12/1/2003
Projectile, 60mm, mortar, high explosive, M49 series	250350	0	UXO	2	12/1/2003
Projectile, 75mm, high explosive, M309	250349	0	UXO	1	12/1/2003
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	250348	9	UXO	1	12/1/2003
Rocket, 35mm, subcaliber, practice, M73	271016	0	UXO	2	12/2/2003
Rocket, 35mm, subcaliber, practice, M73	271024	0	UXO	1	12/2/2003
Projectile, 60mm, mortar, high explosive, M49 series	271019	0	UXO	1	12/2/2003
Projectile, 60mm, mortar, high explosive, M49 series	271022	0	UXO	1	12/2/2003
Projectile, 81mm, mortar, high explosive, M362	271017	0	UXO	1	12/2/2003

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	271021	0	UXO	1	12/2/2003
Projectile, 37mm, high explosive, M54	250061	0	UXO	1	12/4/2003
Projectile, 40mm, high explosive, M406	271028	0	UXO	1	12/4/2003
Projectile, 40mm, high explosive, M406	271029	0	UXO	1	12/4/2003
Projectile, 57mm, high explosive, M306 series	250047	0	UXO	1	12/4/2003
Projectile, 57mm, high explosive, M306 series	250049	0	UXO	1	12/4/2003
Projectile, 57mm, high explosive, M306 series	250050	0	UXO	1	12/4/2003
Projectile, 57mm, high explosive, M306 series	250051	0	UXO	1	12/4/2003
Projectile, 57mm, high explosive, M306 series	250052	0	UXO	1	12/4/2003
Projectile, 57mm, high explosive, M306 series	250054	0	UXO	1	12/4/2003
Projectile, 57mm, high explosive, M306 series	250055	0	UXO	1	12/4/2003
Projectile, 57mm, high explosive, M306 series	250056	0	UXO	1	12/4/2003
Projectile, 57mm, high explosive, M306 series	250057	0	UXO	1	12/4/2003
Projectile, 57mm, high explosive, M306 series	250058	0	UXO	1	12/4/2003
Projectile, 57mm, high explosive, M306 series	250059	0	UXO	1	12/4/2003
Projectile, 57mm, high explosive, M306 series	250060	0	UXO	1	12/4/2003
Projectile, 75mm, high explosive, M309	250048	0	UXO	1	12/4/2003
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	250053	0	UXO	1	12/4/2003
Rocket, 35mm, subcaliber, practice, M73	271030	0	UXO	54	12/8/2003
Projectile, 57mm, high explosive, M306 series	250078	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250079	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250080	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250354	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250355	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250356	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250375	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250385	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250386	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250387	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250388	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250393	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250395	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250396	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250397	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250398	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250399	0	UXO	1	12/8/2003
Projectile, 75mm, high explosive, M48	250376	0	UXO	1	12/8/2003
Fuze, projectile, point detonating, M48 series	250389	0	UXO	1	12/8/2003
Fuze, projectile, point detonating, M48 series	250391	0	UXO	1	12/8/2003
Fuze, projectile, point detonating, M52 series	271034	0	UXO	2	12/8/2003
Grenade, hand, smoke, HC, AN-M8	271032	0	UXO	2	12/8/2003
Rocket motors, M222/M223 (DRAGON)	271031	0	UXO	2	12/8/2003
Signal, illumination, aircraft, AN-M37 series	250377	0	UXO	1	12/8/2003
Projectile, 57mm, high explosive, M306 series	250081	0	UXO	1	12/9/2003
Projectile, 57mm, high explosive, M306 series	250400	0	UXO	9	12/9/2003
Projectile, 57mm, high explosive, M306 series	250403	0	UXO	1	12/9/2003
Projectile, 57mm, high explosive, M306 series	250404	0	UXO	1	12/9/2003
Projectile, 57mm, high explosive, M306 series	250405	0	UXO	1	12/9/2003

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 57mm, high explosive, M306 series	250406	0	UXO	1	12/9/2003
Projectile, 75mm, high explosive, M309	250401	0	UXO	2	12/9/2003
Projectile, 75mm, high explosive, M309	250408	0	UXO	1	12/9/2003
Projectile, 105mm, high explosive, M1	250067	0	UXO	1	12/10/2003
Projectile, 155mm, high explosive, MK 1	250076	0	UXO	1	12/10/2003
Projectile, 37mm, high explosive, M54	250068	0	UXO	1	12/10/2003
Projectile, 37mm, high explosive, M54	250069	0	UXO	1	12/10/2003
Projectile, 37mm, high explosive, M54	250070	0	UXO	1	12/10/2003
Projectile, 37mm, high explosive, M54	250072	0	UXO	1	12/10/2003
Projectile, 40mm, high explosive, M381	250260	0	UXO	1	12/10/2003
Projectile, 40mm, high explosive, M381	250261	0	UXO	1	12/10/2003
Projectile, 40mm, practice, M382	250265	0	UXO	1	12/10/2003
Projectile, 57mm, high explosive, M306 series	250064	0	UXO	1	12/10/2003
Projectile, 57mm, high explosive, M306 series	250066	0	UXO	1	12/10/2003
Projectile, 57mm, high explosive, M306 series	250073	0	UXO	1	12/10/2003
Projectile, 57mm, high explosive, M306 series	250074	0	UXO	1	12/10/2003
Projectile, 57mm, high explosive, M306 series	250075	0	UXO	1	12/10/2003
Projectile, 57mm, high explosive, M306 series	250077	0	UXO	1	12/10/2003
Projectile, 60mm, mortar, high explosive, M49 series	250263	0	UXO	3	12/10/2003
Projectile, 75mm, high explosive, M309	250071	0	UXO	1	12/10/2003
Grenade, hand, smoke, white phosphorous, M15	250262	0	UXO	1	12/10/2003
Ordnance components	250264	0	UXO	1	12/10/2003
Projectile, 57mm, high explosive, M306 series	250268	0	UXO	1	12/11/2003
Projectile, 57mm, high explosive, M306 series	250269	0	UXO	1	12/11/2003
Projectile, 57mm, high explosive, M306 series	250347	0	UXO	1	12/11/2003
Projectile, 60mm, mortar, high explosive, M49 series	250311	0	UXO	1	12/11/2003
Projectile, 81mm, mortar, high explosive, M362	250271	0	UXO	1	12/11/2003
Grenade, hand, smoke, white phosphorous, M15	250267	0	UXO	1	12/11/2003
Projectile, 57mm, high explosive, M306 series	250014	0	UXO	1	12/15/2003
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	250258	0	UXO	1	12/15/2003
Projectile, 40mm, parachute, M583 series	272111	0	UXO	2	12/16/2003
Projectile, 40mm, parachute, M583 series	272116	0	UXO	2	12/16/2003
Projectile, 57mm, high explosive, M306 series	272121	0	UXO	1	12/16/2003
Projectile, 60mm, mortar, high explosive, M49 series	272104	0	UXO	1	12/16/2003
Projectile, 60mm, mortar, high explosive, M49 series	272112	0	UXO	1	12/16/2003
Projectile, 60mm, mortar, illumination, M83 series	272120	0	UXO	1	12/16/2003
Projectile, 75mm, high explosive, MK I	272114	0	UXO	1	12/16/2003
Projectile, 81mm, mortar, smoke, white phosphorous, M375 series	272108	0	UXO	1	12/16/2003
Ordnance components	272117	0	UXO	1	12/16/2003
Ordnance components	272122	0	UXO	1	12/16/2003
Rocket motors, M222/M223 (DRAGON)	272105	0	UXO	1	12/16/2003
Projectile, 40mm, high explosive, M381	272124	0	UXO	1	12/17/2003
Projectile, 60mm, mortar, high explosive, M49 series	251356	0	UXO	1	12/23/2003
Projectile, 81mm, mortar, high explosive, M43 series	252170	0	UXO	6	12/23/2003

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 81mm, mortar, high explosive, M43 series	254722	0	UXO	1	12/23/2003
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	252168	0	UXO	1	12/23/2003
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	254721	0	UXO	1	12/23/2003
Projectile, 40mm, high explosive dual-purpose, M430	252178	0	UXO	1	12/24/2003
Projectile, 57mm, high explosive, M306 series	252179	0	UXO	1	12/24/2003
Projectile, 60mm, mortar, high explosive, M49 series	252177	0	UXO	4	12/24/2003
Igniter, bomb, white phosphorous, M23	252176	0	UXO	1	12/24/2003
Projectile, 25mm, subcaliber, M379	252225	0	UXO	1	12/29/2003
Rocket, 35mm, subcaliber, practice, M73	252221	0	UXO	1	12/29/2003
Projectile, 60mm, mortar, high explosive, M49 series	252211	6	UXO	1	12/29/2003
Projectile, 60mm, mortar, high explosive, M49 series	252213	0	UXO	2	12/29/2003
Projectile, 60mm, mortar, high explosive, M49 series	252215	0	UXO	3	12/29/2003
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	252222	0	UXO	1	12/29/2003
Ordnance components	252219	0	UXO	1	12/29/2003
Rocket motors, M222/M223 (DRAGON)	252220	0	UXO	2	12/29/2003
Rocket, 35mm, subcaliber, practice, M73	252182	0	UXO	3	12/30/2003
Rocket, 35mm, subcaliber, practice, M73	252234	0	UXO	2	12/30/2003
Projectile, 57mm, high explosive, M306 series	252236	0	UXO	2	12/30/2003
Projectile, 57mm, high explosive, M306 series	252241	0	UXO	2	12/30/2003
Projectile, 57mm, high explosive, M306 series	252248	0	UXO	3	12/30/2003
Projectile, 60mm, mortar, high explosive, M49 series	252226	0	UXO	1	12/30/2003
Projectile, 60mm, mortar, high explosive, M49 series	252227	0	UXO	1	12/30/2003
Projectile, 60mm, mortar, high explosive, M49 series	252228	0	UXO	2	12/30/2003
Projectile, 60mm, mortar, high explosive, M49 series	252230	0	UXO	1	12/30/2003
Projectile, 60mm, mortar, high explosive, M49 series	252245	0	UXO	1	12/30/2003
Projectile, 60mm, mortar, high explosive, M49 series	252246	0	UXO	1	12/30/2003
Projectile, 81mm, mortar, high explosive, M362	252239	0	UXO	2	12/30/2003
Projectile, 81mm, mortar, high explosive, M362	252251	0	UXO	1	12/30/2003
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	252250	0	UXO	1	12/30/2003
Fuze, projectile, point detonating, M46	252231	0	UXO	1	12/30/2003
Rocket motors, M222/M223 (DRAGON)	252238	0	UXO	1	12/30/2003
Projectile, 57mm, high explosive, M306 series	252262	0	UXO	8	12/31/2003
Projectile, 57mm, high explosive, M306 series	252268	0	UXO	3	12/31/2003
Projectile, 60mm, mortar, practice, M50 series	252267	0	UXO	1	12/31/2003
Projectile, 75mm, high explosive, M309	252263	0	UXO	1	12/31/2003
Projectile, 75mm, high explosive, M41A1	252264	0	UXO	1	12/31/2003
Projectile, 57mm, high explosive, M306 series	252189	0	UXO	1	1/5/2004
Projectile, 57mm, high explosive, M306 series	252190	0	UXO	10	1/5/2004
Projectile, 57mm, high explosive, M306 series	252197	0	UXO	2	1/5/2004
Projectile, 57mm, high explosive, M306 series	252201	0	UXO	5	1/5/2004
Projectile, 57mm, high explosive, M306 series	252279	0	UXO	3	1/5/2004
Projectile, 57mm, high explosive, M306 series	252280	0	UXO	1	1/5/2004
Projectile, 75mm, high explosive, M309	252196	0	UXO	1	1/5/2004
Projectile, 75mm, high explosive, M48	252204	0	UXO	1	1/5/2004
Fuze, projectile, point detonating, M503 series	251354	0	UXO	7	1/5/2004

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Fuze, projectile, point detonating, M503 series	252281	0	UXO	5	1/5/2004
Ordnance components	252191	0	UXO	1	1/5/2004
Ordnance components	252192	0	UXO	1	1/5/2004
Ordnance components	252193	0	UXO	1	1/5/2004
Ordnance components	252194	0	UXO	1	1/5/2004
Ordnance components	252200	0	UXO	1	1/5/2004
Projectile, 57mm, high explosive, M306 series	250244	0	UXO	3	1/6/2004
Projectile, 57mm, high explosive, M306 series	250248	0	UXO	1	1/6/2004
Projectile, 57mm, high explosive, M306 series	250252	0	UXO	2	1/6/2004
Projectile, 57mm, high explosive, M306 series	250256	0	UXO	2	1/6/2004
Projectile, 57mm, high explosive, M306 series	252282	0	UXO	2	1/6/2004
Projectile, 60mm, mortar, high explosive, M49 series	250239	0	UXO	3	1/6/2004
Projectile, 60mm, mortar, high explosive, M49 series	250241	0	UXO	4	1/6/2004
Projectile, 60mm, mortar, high explosive, M49 series	250242	0	UXO	1	1/6/2004
Projectile, 60mm, mortar, high explosive, M49 series	250246	0	UXO	1	1/6/2004
Projectile, 60mm, mortar, high explosive, M49 series	250249	0	UXO	1	1/6/2004
Projectile, 60mm, mortar, high explosive, M49 series	250251	0	UXO	2	1/6/2004
Projectile, 60mm, mortar, high explosive, M49 series	250253	0	UXO	4	1/6/2004
Projectile, 75mm, high explosive, M48	252284	0	UXO	2	1/6/2004
Projectile, 81mm, mortar, high explosive, M362	250240	0	UXO	5	1/6/2004
Projectile, 81mm, mortar, high explosive, M362	250245	0	UXO	1	1/6/2004
Projectile, 81mm, mortar, high explosive, M362	250247	0	UXO	3	1/6/2004
Fuze, projectile, point detonating, M503 series	252283	0	UXO	3	1/6/2004
Projectile, 57mm, high explosive, M306 series	252290	0	UXO	4	1/7/2004
Projectile, 57mm, high explosive, M306 series	252292	0	UXO	1	1/7/2004
Projectile, 57mm, high explosive, M306 series	252295	0	UXO	7	1/7/2004
Projectile, 57mm, high explosive, M306 series	252296	0	UXO	2	1/7/2004
Projectile, 57mm, high explosive, M306 series	252301	0	UXO	2	1/7/2004
Projectile, 57mm, high explosive, M306 series	252302	0	UXO	1	1/7/2004
Projectile, 57mm, high explosive, M306 series	252321	0	UXO	8	1/7/2004
Projectile, 57mm, high explosive, M306 series	252322	0	UXO	2	1/7/2004
Projectile, 75mm, high explosive, M309	252286	0	UXO	1	1/7/2004
Projectile, 75mm, high explosive, M309	254740	0	UXO	1	1/7/2004
Ordnance components	252287	0	UXO	2	1/7/2004
Ordnance components	252293	0	UXO	1	1/7/2004
Ash, pyrotechnic	318219	3	UXO	1	1/7/2004
Projectile, 57mm, high explosive, M306 series	254753	0	UXO	28	1/8/2004
Projectile, 75mm, high explosive, M48	254754	0	UXO	1	1/8/2004
Projectile, 40mm, high explosive, M381	128270	0	UXO	1	1/12/2004
Projectile, 60mm, mortar, high explosive, M49 series	128268	0	UXO	1	1/12/2004
Projectile, 81mm, mortar, high explosive, M374 series	128271	0	UXO	1	1/12/2004
Projectile, 81mm, mortar, high explosive, M43 series	128266	0	UXO	1	1/12/2004
Projectile, 81mm, mortar, high explosive, M43 series	128267	0	UXO	1	1/12/2004

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 84mm, high explosive antitank, M136 series (AT-4)	128265	0	UXO	1	1/12/2004
Cord, detonating	317026	3	DMM	1	1/12/2004
Projectile, 57mm, high explosive, M306 series	128244	0	UXO	1	1/13/2004
Projectile, 81mm, mortar, high explosive, M362	128245	0	UXO	1	1/13/2004
Burster, field, incendiary, M4	128248	0	UXO	1	1/14/2004
Grenade, hand, incendiary, TH3, AN-M14	128247	0	UXO	1	1/14/2004
Projectile, 57mm, high explosive, M306 series	128196	0	UXO	2	1/15/2004
Projectile, 57mm, high explosive, M306 series	128197	0	UXO	1	1/15/2004
Projectile, 57mm, high explosive, M306 series	128198	0	UXO	1	1/15/2004
Projectile, 57mm, high explosive, M306 series	128199	0	UXO	1	1/15/2004
Projectile, 57mm, high explosive, M306 series	128206	0	UXO	2	1/15/2004
Projectile, 57mm, high explosive, M306 series	250007	0	UXO	7	1/15/2004
Projectile, 57mm, high explosive, M306 series	250008	0	UXO	1	1/15/2004
Projectile, 60mm, mortar, high explosive, M49 series	128251	0	UXO	1	1/15/2004
Projectile, 60mm, mortar, high explosive, M49 series	252172	18	UXO	1	1/15/2004
Projectile, 60mm, mortar, high explosive, M49 series	252173	12	UXO	1	1/15/2004
Projectile, 60mm, mortar, high explosive, M49 series	252174	12	UXO	1	1/15/2004
Projectile, 75mm, high explosive, M309	250006	0	UXO	2	1/15/2004
Projectile, 75mm, high explosive, M41A1	128205	0	UXO	1	1/15/2004
Projectile, 81mm, mortar, high explosive, M362	128203	0	UXO	1	1/15/2004
Projectile, 81mm, mortar, high explosive, M362	250005	0	UXO	5	1/15/2004
Projectile, 81mm, mortar, high explosive, M43 series	252171	10	UXO	1	1/15/2004
Projectile, 81mm, mortar, high explosive, M43 series	252175	1	UXO	1	1/15/2004
Grenade, hand, smoke, white phosphorous, M15	128202	0	UXO	1	1/15/2004
Projectile, 60mm, mortar, high explosive, M49 series	270945	8	UXO	1	1/20/2004
Projectile, 105mm, high explosive, M1	128253	0	UXO	1	1/22/2004
Projectile, 57mm, smoke, white phosphorous, M308 series	128207	0	UXO	1	1/22/2004
Projectile, 75mm, shrapnel, MK I	128254	0	UXO	1	1/22/2004
Projectile, 81mm, mortar, high explosive, M43 series	128255	0	UXO	2	1/22/2004
Fuze, projectile, point detonating, M48 series	128209	0	UXO	1	1/22/2004
Fuze, projectile, point detonating, M503 series	128256	0	UXO	1	1/22/2004
Cartridge, 40mm, practice, M781	301819	0	DMM	1	1/26/2004
Projectile, 57mm, high explosive, M306 series	128250	0	UXO	1	1/26/2004
Projectile, 75mm, smoke, white phosphorous, M311	128210	0	UXO	1	1/26/2004
Grenade, hand, smoke, white phosphorous, M34	128249	0	UXO	4	1/26/2004
Projectile, 40mm, smoke, M713 series	250017	0	UXO	1	1/27/2004
Projectile, 57mm, high explosive, M306 series	128238	0	UXO	1	1/27/2004
Flare, parachute, trip, M48	250019	0	UXO	1	1/27/2004
Grenade, hand, smoke, M18 series	250016	0	UXO	1	1/27/2004
Signal, illumination, ground, M21A1	250018	0	UXO	6	1/27/2004
Projectile, 57mm, high explosive, M306 series	128239	0	UXO	5	1/28/2004
Projectile, 60mm, mortar, high explosive, M49 series	128240	0	UXO	1	1/28/2004
Projectile, 57mm, high explosive, M306 series	250026	0	UXO	7	1/29/2004
Projectile, 60mm, mortar, high explosive, M49 series	250020	0	UXO	3	1/29/2004
Projectile, 75mm, high explosive, MK I	250025	0	UXO	4	1/29/2004
Projectile, 75mm, high explosive, MK I	250027	0	UXO	1	1/29/2004

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 75mm, shrapnel, MK I	250023	0	UXO	1	1/29/2004
Projectile, 81mm, mortar, high explosive, M43 series	250021	0	UXO	2	1/29/2004
Projectile, 57mm, high explosive antitank, M307	318911	0	UXO	1	2/17/2004
Projectile, 57mm, high explosive, M306 series	318277	0	UXO	1	2/17/2004
Projectile, 57mm, high explosive, M306 series	318282	0	UXO	1	2/17/2004
Projectile, 57mm, high explosive, M306 series	318283	0	UXO	1	2/17/2004
Projectile, 57mm, high explosive, M306 series	318286	0	UXO	1	2/17/2004
Projectile, 60mm, mortar, high explosive, M49 series	318906	0	UXO	1	2/17/2004
Projectile, 60mm, mortar, high explosive, M49 series	318907	0	UXO	1	2/17/2004
Projectile, 60mm, mortar, high explosive, M49 series	318908	0	UXO	1	2/17/2004
Fuze, projectile, point detonating, M48 series	318280	0	UXO	1	2/17/2004
Fuze, projectile, point detonating, M48 series	318909	0	UXO	1	2/17/2004
Fuze, projectile, point detonating, M48 series	318910	0	UXO	1	2/17/2004
Grenade, hand, smoke, white phosphorous, M15	318912	0	UXO	1	2/17/2004
Rocket motors, M222/M223 (DRAGON)	318284	0	UXO	1	2/17/2004
Cartridge, 40mm, practice, M781	315830	2	DMM	1	2/18/2004
Projectile, 57mm, high explosive, M306 series	318046	0	UXO	20	2/19/2004
Projectile, 75mm, high explosive, M48	318045	0	UXO	19	2/19/2004
Igniter, bomb, white phosphorous, M23	128269	0	UXO	1	2/19/2004
Ordnance components	252256	0	UXO	1	2/26/2004
Rocket motors, M222/M223 (DRAGON)	252258	0	UXO	1	2/26/2004
Simulator, projectile, airburst, M74 series	252257	0	UXO	1	2/26/2004
Projectile, 37mm, high explosive, MK II	302959	4	UXO	1	3/1/2004
Projectile, 40mm, high explosive, M383	252183	0	UXO	1	3/1/2004
Projectile, 57mm, high explosive, M306 series	254728	0	UXO	18	3/2/2004
Grenade, hand, smoke, white phosphorous, M15	271025	0	UXO	1	3/4/2004
Projectile, 60mm, mortar, high explosive, M49 series	265611	12	UXO	1	3/8/2004
Projectile, 60mm, mortar, high explosive, M49 series	265612	6	UXO	1	3/8/2004
Projectile, 60mm, mortar, high explosive, M49 series	265613	6	UXO	1	3/8/2004
Projectile, 60mm, mortar, high explosive, M49 series	265614	2	UXO	1	3/8/2004
Projectile, 60mm, mortar, high explosive, M49 series	265615	4	UXO	1	3/8/2004
Projectile, 40mm, high explosive, M384	272153	1	UXO	1	3/10/2004
Projectile, 60mm, mortar, high explosive, M49 series	270749	6	UXO	1	3/11/2004
Projectile, 60mm, mortar, high explosive, M49 series	270750	6	UXO	2	3/11/2004
Projectile, 60mm, mortar, high explosive, M49 series	270751	3	UXO	1	3/11/2004
Projectile, 60mm, mortar, high explosive, M49 series	270752	6	UXO	1	3/11/2004
Projectile, 60mm, mortar, high explosive, M49 series	270753	4	UXO	1	3/11/2004
Signal, illumination, ground, M125 series	270842	6	UXO	1	3/11/2004
Grenade, rifle, smoke, M22 series	303000	12	UXO	1	3/15/2004
Projectile, 60mm, mortar, high explosive, M49 series	270959	6	UXO	1	3/22/2004
Projectile, 60mm, mortar, high explosive, M49 series	271011	2	UXO	1	3/22/2004
Projectile, 60mm, mortar, high explosive, M49 series	271012	2	UXO	1	3/22/2004
Fuze, grenade, hand, practice, M205 series	303016	12	DMM	6	3/22/2004
Cartridge, 40mm, practice, M781	302636	1	DMM	1	3/23/2004
Fuze, grenade, hand, M204 series	302637	0	DMM	1	3/23/2004
Fuze, grenade, hand, M204 series	302638	2	DMM	1	3/23/2004
Projectile, 60mm, mortar, high explosive, M49 series	270861	2	UXO	1	3/25/2004

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 4.2inch, mortar, high explosive, M3 series	270760	6	UXO	1	3/29/2004
Projectile, 4.2inch, mortar, smoke, white phosphorous, M328 series	296661	8	UXO	1	3/30/2004
Projectile, 81mm, mortar, high explosive, M43 series	252180	0	UXO	2	3/30/2004
Projectile, 81mm, mortar, high explosive, M43 series	252207	0	UXO	1	3/30/2004
Fuze, grenade, hand, M10 series	303119	6	DMM	5	3/30/2004
Ordnance components	271037	0	UXO	1	3/30/2004
Ordnance components	271772	0	UXO	1	3/30/2004
Projectile, 37mm, high explosive, M63	265600	2	UXO	1	4/5/2004
Projectile, 40mm, smoke, M680 series	314844	0	UXO	1	4/7/2004
Cap, blasting, electric, M6	303034	8	DMM	1	4/7/2004
Firing device, pull, M1	303032	4	UXO	1	4/7/2004
Cartridge, ignition, M2 series	303036	5	UXO	1	4/8/2004
Rocket, 35mm, subcaliber, practice, M73	303044	2	UXO	1	4/12/2004
Projectile, 60mm, mortar, high explosive, M49 series	303042	20	UXO	1	4/12/2004
Rocket, 35mm, subcaliber, practice, M73	315036	1	UXO	1	4/13/2004
Projectile, 60mm, mortar, high explosive, M49 series	304067	4	UXO	1	4/13/2004
Rocket motor, 2.36inch	303900	6	UXO	1	4/14/2004
Rocket motor, 2.36inch	303901	6	UXO	2	4/14/2004
Rocket motor, 2.36inch	303902	5	UXO	1	4/14/2004
Projectile, 81mm, mortar, high explosive, M374 series	252364	24	UXO	1	4/14/2004
Grenade, rifle, smoke, M22 series	303914	38	DMM	4	4/15/2004
Projectile, 60mm, mortar, high explosive, M49 series	252404	18	UXO	1	4/19/2004
Projectile, 81mm, mortar, high explosive, M43 series	252403	30	UXO	1	4/19/2004
Projectile, 81mm, mortar, high explosive, M374 series	252405	24	UXO	1	4/20/2004
Signal, illumination, ground, M125 series	301798	1	UXO	2	4/20/2004
Grenade, hand, practice, MK II	301799	6	UXO	1	4/21/2004
Grenade, rifle, antitank, M9 series	303624	18	UXO	1	4/22/2004
Grenade, rifle, smoke, M22 series	303796	6	UXO	1	4/22/2004
Rocket, 2.36inch, high explosive antitank, M6 Series	302366	10	UXO	1	4/26/2004
Cartridge, 40mm, practice, M781	301533	2	DMM	1	4/26/2004
Cartridge, 40mm, practice, M781	317960	3	DMM	1	4/26/2004
Signal, smoke, ground, M62 series	270934	30	UXO	1	4/26/2004
Rocket motor, 2.36inch	303373	4	UXO	1	4/27/2004
Fuze, projectile, point detonating, M48 series	303382	0	UXO	1	4/27/2004
Rocket, 2.36inch, high explosive antitank, M6 Series	303360	16	UXO	1	4/28/2004
Rocket, 35mm, subcaliber, practice, M73	303359	0	UXO	1	4/28/2004
Fuze, projectile, point detonating, M52 series	303386	2	UXO	1	4/28/2004
Projectile, 60mm, mortar, high explosive, M49 series	254708	8	UXO	1	4/29/2004
Projectile, 60mm, mortar, high explosive, M49 series	303725	2	UXO	1	4/29/2004
Fuze, projectile, point detonating, M53 series	303364	0	UXO	1	4/29/2004
Grenade, hand, smoke, HC, AN-M8	314514	1	UXO	1	5/3/2004
Ordnance components	251358	0	UXO	1	5/3/2004
Projectile, 60mm, mortar, high explosive, M49 series	251359	1	UXO	1	5/4/2004
Explosive, bulk, high explosive	251360	0	UXO	1	5/4/2004
Flare, surface, trip, M49 series	302301	4	UXO	1	5/4/2004
Rocket, 2.36inch, high explosive antitank, M6 Series	302668	2	UXO	1	5/5/2004

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 57mm, high explosive, M306 series	257012	3	UXO	1	5/5/2004
Projectile, 60mm, mortar, high explosive, M49 series	250003	1	UXO	1	5/5/2004
Projectile, 60mm, mortar, high explosive, M49 series	254731	1	UXO	1	5/5/2004
Projectile, 81mm, mortar, high explosive, M43 series	250002	1	UXO	1	5/5/2004
Projectile, 81mm, mortar, high explosive, M43 series	254730	1	UXO	1	5/5/2004
Projectile, 57mm, high explosive, M306 series	252160	0	UXO	6	5/6/2004
Projectile, 57mm, high explosive, M306 series	257013	12	UXO	1	5/6/2004
Projectile, 60mm, mortar, high explosive, M49 series	254735	0	UXO	1	5/6/2004
Projectile, 60mm, mortar, high explosive, M49 series	254737	0	UXO	1	5/6/2004
Projectile, 81mm, mortar, high explosive, M43 series	252270	0	UXO	6	5/6/2004
Projectile, 81mm, mortar, high explosive, M43 series	254738	0	UXO	1	5/6/2004
Grenade, hand, smoke, M18 series	301328	8	UXO	1	5/6/2004
Ordnance components	252271	0	UXO	1	5/6/2004
Rocket, 35mm, subcaliber, practice, M73	261214	2	UXO	1	5/10/2004
Projectile, 60mm, mortar, high explosive, M49 series	252184	0	UXO	2	5/10/2004
Projectile, 60mm, mortar, high explosive, M49 series	265594	1	UXO	1	5/10/2004
Projectile, 60mm, mortar, high explosive, M49 series	270629	12	UXO	1	5/10/2004
Projectile, 75mm, high explosive, M309	261212	3	UXO	1	5/10/2004
Fuze, grenade, hand, M206 series	303830	2	UXO	1	5/10/2004
Ordnance components	271323	0	UXO	1	5/10/2004
Ordnance components	303822	0	UXO	1	5/10/2004
Ordnance components	303833	1	UXO	1	5/10/2004
Grenade, rifle, smoke, M22 series	303832	1	UXO	1	5/10/2004
Rocket, 35mm, subcaliber, practice, M73	301098	18	UXO	1	5/11/2004
Projectile, 57mm, high explosive, M306 series	252275	0	UXO	37	5/11/2004
Projectile, 57mm, high explosive, M306 series	261215	3	UXO	1	5/11/2004
Projectile, 81mm, mortar, high explosive, M43 series	254736	0	UXO	1	5/11/2004
Fuze, grenade, hand, M206 series	303694	0	UXO	1	5/11/2004
Fuze, projectile, point detonating, M48 series	254723	0	UXO	1	5/11/2004
Ordnance components	252277	0	UXO	1	5/11/2004
Grenade, rifle, smoke, M22 series	303695	2	UXO	1	5/11/2004
Rocket motors, M222/M223 (DRAGON)	254724	0	UXO	1	5/11/2004
Rocket, 2.36inch, high explosive antitank, M6 Series	271907	14	UXO	1	5/12/2004
Fuze, projectile, point detonating, M48 series	261225	6	UXO	1	5/12/2004
Rocket, 2.36inch, high explosive antitank, M6 Series	271917	20	UXO	1	5/13/2004
Rocket, 2.36inch, high explosive antitank, M6 Series	271932	14	UXO	1	5/13/2004
Projectile, 57mm, high explosive, M306 series	250873	6	UXO	1	5/17/2004
Projectile, 81mm, mortar, high explosive, M43 series	300250	24	UXO	1	5/17/2004
Projectile, 4.2inch, mortar, high explosive, M3 series	254453	2	UXO	1	5/18/2004
Projectile, 57mm, high explosive, M306 series	250876	10	UXO	1	5/18/2004
Projectile, 60mm, mortar, high explosive, M49 series	250875	6	UXO	1	5/18/2004
Projectile, 60mm, mortar, high explosive, M49 series	271632	7	UXO	1	5/18/2004
Projectile, 60mm, mortar, high explosive, M49 series	271638	1	UXO	1	5/18/2004
Fuze, projectile, point detonating, M48 series	250874	3	UXO	1	5/18/2004
Ordnance components	271645	0	UXO	1	5/18/2004

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Rocket motor, 3.5inch	271650	2	UXO	1	5/19/2004
Fuze, grenade, hand, M206 series	271656	0	UXO	1	5/19/2004
Grenade, hand, smoke, white phosphorous, M15	271649	3	UXO	1	5/19/2004
Ordnance components	271657	0	UXO	1	5/19/2004
Projectile, 60mm, mortar, high explosive, M49 series	265992	12	UXO	1	5/20/2004
Projectile, 60mm, mortar, high explosive, M49 series	265993	12	UXO	1	5/20/2004
Projectile, 60mm, mortar, high explosive, M49 series	265994	18	UXO	1	5/20/2004
Projectile, 60mm, mortar, high explosive, M720	270790	12	UXO	1	5/20/2004
Ordnance components	271712	1	UXO	1	5/20/2004
Rocket, 35mm, subcaliber, practice, M73	271506	0	UXO	4	5/24/2004
Projectile, 60mm, mortar, high explosive, M49 series	271503	2	UXO	1	5/24/2004
Fuze, projectile, point detonating, M48 series	271511	4	UXO	1	5/24/2004
Rocket, 35mm, subcaliber, practice, M73	271523	2	UXO	1	5/25/2004
Projectile, 40mm, high explosive, M384	268217	1	UXO	1	5/25/2004
Projectile, 60mm, mortar, high explosive, M49 series	271368	12	UXO	1	5/25/2004
Projectile, 60mm, mortar, high explosive, M49 series	271518	19	UXO	1	5/25/2004
Projectile, 60mm, mortar, high explosive, M49 series	271525	14	UXO	1	5/25/2004
Projectile, 81mm, mortar, high explosive, M362	265990	18	UXO	1	5/25/2004
Projectile, 4.2inch, mortar, smoke, white phosphorous, M328 series	271324	4	UXO	1	5/26/2004
Projectile, 60mm, mortar, high explosive, M49 series	271332	3	UXO	1	5/26/2004
Projectile, 81mm, mortar, high explosive, M43 series	271333	16	UXO	1	5/26/2004
Rocket, 35mm, subcaliber, practice, M73	271357	1	UXO	1	5/27/2004
Projectile, 60mm, mortar, high explosive, M49 series	271354	8	UXO	1	5/27/2004
Fuze, projectile, point detonating, M52 series	271363	0	UXO	1	5/27/2004
Ordnance components	271360	11	UXO	20	5/27/2004
Ordnance components	271362	0	UXO	1	5/27/2004
Rocket, 35mm, subcaliber, practice, M73	295307	6	DMM	1	6/1/2004
Projectile, 40mm, parachute, M583 series	295306	6	UXO	1	6/1/2004
Projectile, 60mm, mortar, high explosive, M49 series	271727	8	UXO	1	6/2/2004
Ordnance components	271306	4	UXO	2	6/2/2004
Rocket motors, M222/M223 (DRAGON)	271752	0	UXO	1	6/2/2004
Projectile, 60mm, mortar, high explosive, M49 series	271307	5	UXO	1	6/3/2004
Grenade, rifle, smoke, M22 series	303191	0	UXO	1	6/3/2004
Propellant, rocket	271769	0	UXO	1	6/3/2004
Rocket, 35mm, subcaliber, practice, M73	295444	14	UXO	1	6/7/2004
Rocket, 35mm, subcaliber, practice, M73	303209	0	UXO	1	6/7/2004
Projectile, 4.2inch, mortar, high explosive, M3 series	271039	8	UXO	1	6/7/2004
Projectile, 40mm, parachute, M583 series	295445	3	UXO	1	6/7/2004
Projectile, 60mm, mortar, high explosive, M49 series	270826	2	UXO	1	6/7/2004
Rocket motor, 3.5inch	302801	6	UXO	1	6/8/2004
Grenade, rifle, smoke, M22 series	302343	3	UXO	1	6/8/2004
Grenade, rifle, smoke, M22 series	302792	11	UXO	1	6/8/2004
Projectile, 75mm, high explosive, M48	302807	11	UXO	1	6/9/2004

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Firing device, pull friction, M2	302809	2	UXO	1	6/9/2004
Grenade, hand, fragmentation, MK II	302810	4	UXO	1	6/9/2004
Ash, pyrotechnic	302808	2	UXO	1	6/9/2004
Grenade, rifle, smoke, M22 series	302827	4	UXO	1	6/10/2004
Projectile, 57mm, high explosive, M306 series	261637	6	UXO	1	6/14/2004
Grenade, rifle, antitank, M9 series	302789	10	UXO	1	6/14/2004
Rocket, 35mm, subcaliber, practice, M73	261645	4	UXO	1	6/15/2004
Projectile, 57mm, high explosive, M306 series	251468	12	UXO	1	6/16/2004
Projectile, 57mm, high explosive, M306 series	261648	14	UXO	1	6/16/2004
Projectile, 57mm, high explosive, M306 series	261649	8	UXO	1	6/16/2004
Projectile, 60mm, mortar, high explosive, M49 series	251467	8	UXO	1	6/16/2004
Projectile, 81mm, mortar, high explosive, M43 series	298521	12	UXO	1	6/16/2004
Projectile, 81mm, mortar, illumination, M301 series	252895	24	UXO	1	6/16/2004
Projectile, 57mm, high explosive, M306 series	251469	4	UXO	1	6/17/2004
Projectile, 57mm, high explosive, M306 series	261654	8	UXO	1	6/17/2004
Ordnance components	256879	1	UXO	1	6/17/2004
Rocket, 35mm, subcaliber, practice, M73	261522	4	UXO	1	6/21/2004
Projectile, 57mm, high explosive, M306 series	261521	0	UXO	1	6/21/2004
Projectile, 60mm, mortar, illumination, M721	252800	6	UXO	1	6/21/2004
Fuze, projectile, point detonating, M48 series	261524	4	UXO	1	6/21/2004
Fuze, projectile, point detonating, M503 series	256881	2	UXO	1	6/21/2004
Projectile, 57mm, high explosive, M306 series	251537	4	UXO	1	6/22/2004
Projectile, 57mm, high explosive, M306 series	251538	5	UXO	1	6/22/2004
Projectile, 57mm, high explosive, M306 series	256882	1	UXO	1	6/22/2004
Projectile, 60mm, mortar, illumination, M83 series	252805	6	UXO	1	6/22/2004
Projectile, 60mm, mortar, illumination, M83 series	252811	18	UXO	1	6/22/2004
Projectile, 60mm, mortar, illumination, M83 series	252812	2	UXO	1	6/22/2004
Projectile, 75mm, high explosive, MK I	261527	8	UXO	1	6/22/2004
Projectile, 81mm, mortar, practice, M43 series	252806	18	UXO	1	6/22/2004
Projectile, 57mm, high explosive, M306 series	255743	1	UXO	1	6/23/2004
Projectile, 60mm, mortar, illumination, M83 series	252723	6	UXO	1	6/23/2004
Projectile, 81mm, mortar, high explosive, M43 series	252722	24	UXO	1	6/23/2004
Projectile, 81mm, mortar, illumination, M301 series	257979	18	UXO	1	6/23/2004
Rocket motors, M222/M223 (DRAGON)	261445	2	UXO	1	6/23/2004
Projectile, 57mm, high explosive, M306 series	255744	4	UXO	1	6/24/2004
Projectile, 57mm, high explosive, M306 series	257980	1	UXO	1	6/24/2004
Projectile, 60mm, mortar, high explosive, M49 series	252091	6	UXO	1	6/24/2004
Projectile, 60mm, mortar, high explosive, M49 series	252092	6	UXO	1	6/24/2004
Projectile, 81mm, mortar, high explosive, M43 series	252726	20	UXO	1	6/24/2004
Fuze, projectile, point detonating, M48 series	257982	1	UXO	1	6/24/2004
Projectile, 57mm, high explosive, M306 series	252090	4	UXO	1	6/28/2004
Projectile, 60mm, mortar, high explosive, M49 series	252721	12	UXO	1	6/28/2004
Projectile, 60mm, mortar, high explosive, M49 series	257976	6	UXO	1	6/28/2004
Projectile, 75mm, high explosive, M48	252720	6	UXO	1	6/28/2004
Projectile, 81mm, mortar, high explosive, M43 series	296193	24	UXO	1	6/28/2004
Ordnance components	255736	1	UXO	1	6/28/2004
Ordnance components	257977	2	UXO	1	6/28/2004

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 57mm, high explosive, M306 series	255738	12	UXO	1	6/29/2004
Projectile, 81mm, mortar, high explosive, M43 series	252623	30	UXO	1	6/29/2004
Fuze, projectile, point detonating, M48 series	250719	1	UXO	1	6/29/2004
Ordnance components	257814	2	UXO	1	6/29/2004
Projectile, 57mm, high explosive, M306 series	250954	0	UXO	1	6/30/2004
Projectile, 57mm, high explosive, M306 series	255305	3	UXO	1	7/1/2004
Projectile, 75mm, high explosive, MK I	261437	10	UXO	1	7/1/2004
Projectile, 81mm, mortar, high explosive, M43 series	297657	24	UXO	1	7/1/2004
Fuze, projectile, point detonating, M48 series	261440	0	UXO	1	7/1/2004
Ordnance components	257816	12	UXO	1	7/1/2004
Projectile, 57mm, high explosive, M306 series	252625	6	UXO	1	7/6/2004
Projectile, 57mm, high explosive, M306 series	260460	6	UXO	1	7/6/2004
Projectile, 57mm, high explosive, M306 series	260461	3	UXO	1	7/6/2004
Projectile, 75mm, high explosive, MK I	261450	14	UXO	1	7/6/2004
Projectile, 76mm, high explosive, M352	259613	6	UXO	1	7/6/2004
Projectile, 81mm, mortar, high explosive, M43 series	297658	24	UXO	1	7/6/2004
Projectile, 81mm, mortar, high explosive, M56	297660	24	UXO	1	7/6/2004
Ordnance components	259156	1	UXO	1	7/6/2004
Ordnance components	297659	24	UXO	1	7/6/2004
Projectile, 75mm, shrapnel, MK I	259154	4	UXO	1	7/7/2004
Projectile, 60mm, mortar, high explosive, M49 series	252555	1	UXO	1	7/8/2004
Projectile, 60mm, mortar, high explosive, M49 series	260980	5	UXO	1	7/8/2004
Projectile, 60mm, mortar, high explosive, M49 series	265762	12	UXO	1	7/8/2004
Projectile, 81mm, mortar, high explosive, M362	265763	8	UXO	1	7/8/2004
Projectile, 81mm, mortar, high explosive, M362	265764	10	UXO	1	7/12/2004
Projectile, 81mm, mortar, high explosive, M43 series	297656	24	UXO	1	7/12/2004
Projectile, 57mm, high explosive, M306 series	251644	6	UXO	1	7/13/2004
Projectile, 60mm, mortar, high explosive, M49 series	252500	12	UXO	1	7/13/2004
Projectile, 60mm, mortar, high explosive, M49 series	265766	5	UXO	1	7/13/2004
Fuze, projectile, point detonating, M46	254655	2	UXO	1	7/13/2004
Fuze, projectile, point detonating, M51 series	255306	4	UXO	1	7/13/2004
Projectile, 4.2inch, mortar, smoke, white phosphorous, M328 series	252186	1	UXO	1	7/14/2004
Projectile, 57mm, high explosive, M306 series	251645	6	UXO	1	7/14/2004
Projectile, 57mm, high explosive, M306 series	252501	6	UXO	1	7/14/2004
Projectile, 60mm, mortar, high explosive, M49 series	252187	2	UXO	1	7/14/2004
Projectile, 60mm, mortar, illumination, M83 series	251647	8	UXO	1	7/14/2004
Charge, 0.25lbs, demolition, TNT	313222	36	DMM	1	7/14/2004
Fuze, projectile, point detonating, M48 series	251649	4	UXO	1	7/15/2004
Ordnance components	251648	4	UXO	1	7/15/2004
Ordnance components	251650	6	UXO	1	7/15/2004
Projectile, 57mm, high explosive, M306 series	251720	4	UXO	1	7/19/2004
Projectile, 57mm, high explosive, M306 series	259125	2	UXO	1	7/19/2004
Projectile, 57mm, high explosive, M306 series	260338	4	UXO	1	7/19/2004

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 57mm, armor piercing tracer, M70	251723	4	UXO	1	7/19/2004
Projectile, 60mm, mortar, high explosive, M49 series	253141	4	UXO	1	7/19/2004
Projectile, 76mm, high explosive, M352	260339	3	UXO	1	7/19/2004
Fuze, projectile, point detonating, M48 series	251722	12	UXO	1	7/19/2004
Projectile, 60mm, mortar, high explosive, M49 series	266214	12	UXO	1	7/20/2004
Rocket motors, M222/M223 (DRAGON)	255451	3	UXO	2	7/20/2004
Projectile, 40mm, high explosive dual-purpose, M433	251726	2	UXO	1	7/21/2004
Projectile, 40mm, high explosive dual-purpose, M433	251727	2	UXO	1	7/21/2004
Projectile, 40mm, high explosive dual-purpose, M433	251728	3	UXO	1	7/21/2004
Projectile, 57mm, high explosive, M306 series	255453	3	UXO	1	7/21/2004
Projectile, 75mm, high explosive, M48	255454	3	UXO	1	7/21/2004
Ordnance components	275546	0	UXO	1	7/21/2004
Projectile, 57mm, high explosive, M306 series	251141	4	UXO	1	7/22/2004
Projectile, 57mm, high explosive, M306 series	251143	5	UXO	1	7/22/2004
Projectile, 57mm, high explosive, M306 series	251146	18	UXO	1	7/26/2004
Projectile, 57mm, high explosive, M306 series	272155	2	UXO	1	7/26/2004
Projectile, 60mm, mortar, high explosive, M49 series	266343	6	UXO	1	7/26/2004
Projectile, 81mm, mortar, high explosive, M43 series	266345	12	UXO	1	7/26/2004
Fuze, projectile, point detonating, M48 series	251147	2	UXO	1	7/26/2004
Fuze, projectile, point detonating, M48 series	266344	5	UXO	1	7/26/2004
Projectile, 57mm, high explosive, M306 series	255576	6	UXO	1	7/27/2004
Projectile, 57mm, high explosive, M306 series	255578	6	UXO	1	7/27/2004
Projectile, 60mm, mortar, high explosive, M49 series	253079	10	UXO	1	7/27/2004
Projectile, 60mm, mortar, high explosive, M49 series	253081	12	UXO	1	7/27/2004
Projectile, 60mm, mortar, high explosive, M49 series	253082	4	UXO	1	7/27/2004
Projectile, 60mm, mortar, high explosive, M49 series	265584	12	UXO	1	7/27/2004
Projectile, 60mm, mortar, high explosive, M49 series	265585	6	UXO	1	7/27/2004
Projectile, 60mm, mortar, high explosive, M49 series	265586	15	UXO	1	7/27/2004
Projectile, 60mm, mortar, high explosive, M49 series	265587	12	UXO	1	7/27/2004
Projectile, 60mm, mortar, high explosive, M49 series	272156	3	UXO	1	7/27/2004
Ordnance components	296510	1	UXO	1	7/27/2004
Ordnance components	299501	0	UXO	1	7/27/2004
Rocket, 35mm, subcaliber, practice, M73	271393	6	UXO	1	7/28/2004
Projectile, 57mm, high explosive, M306 series	250481	1	UXO	1	7/28/2004
Projectile, 57mm, high explosive, M306 series	250483	2	UXO	1	7/28/2004
Projectile, 57mm, high explosive, M306 series	255579	6	UXO	1	7/28/2004
Projectile, 60mm, mortar, high explosive, M49 series	250484	12	UXO	1	7/28/2004
Projectile, 75mm, high explosive, M48	250482	2	UXO	1	7/28/2004
Fuze, projectile, point detonating, M48 series	266346	5	UXO	1	7/28/2004
Rocket, 35mm, subcaliber, practice, M73	255584	12	UXO	1	7/29/2004
Projectile, 57mm, high explosive, M306 series	250485	1	UXO	1	7/29/2004
Projectile, 57mm, high explosive, M306 series	255581	4	UXO	1	7/29/2004
Projectile, 60mm, mortar, high explosive, M49 series	266347	12	UXO	1	7/29/2004
Projectile, 60mm, mortar, high explosive, M49 series	271101	4	UXO	1	7/29/2004
Projectile, 57mm, high explosive, M306 series	250464	8	UXO	1	8/3/2004
Projectile, 57mm, high explosive, M306 series	271100	1	UXO	1	8/3/2004
Projectile, 60mm, mortar, illumination, M83 series	299557	12	UXO	1	8/3/2004
Projectile, 75mm, high explosive, M41A1	299582	12	UXO	1	8/3/2004

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 57mm, high explosive, M306 series	256335	6	UXO	1	8/5/2004
Projectile, 57mm, high explosive, M306 series	256336	2	UXO	1	8/5/2004
Projectile, 57mm, high explosive, M306 series	256337	3	UXO	1	8/5/2004
Projectile, 57mm, high explosive, M306 series	272857	5	UXO	1	8/5/2004
Projectile, 60mm, mortar, high explosive, M49 series	250325	2	UXO	1	8/5/2004
Projectile, 81mm, mortar, high explosive, M43 series	265662	24	UXO	1	8/5/2004
Projectile, 81mm, mortar, high explosive, M43 series	272856	12	UXO	1	8/5/2004
Rocket, 35mm, subcaliber, practice, M73	255117	2	UXO	1	8/9/2004
Projectile, 37mm, high explosive, M63	271583	6	UXO	1	8/9/2004
Projectile, 57mm, high explosive, M306 series	250326	2	UXO	1	8/9/2004
Projectile, 57mm, high explosive, M306 series	250328	2	UXO	1	8/9/2004
Projectile, 57mm, high explosive, M306 series	250329	6	UXO	1	8/9/2004
Projectile, 57mm, high explosive, M306 series	255114	10	UXO	1	8/9/2004
Projectile, 60mm, mortar, high explosive, M49 series	250327	4	UXO	1	8/9/2004
Projectile, 81mm, mortar, high explosive, M43 series	298712	12	UXO	1	8/9/2004
Explosive, bulk, high explosive	266803	5	UXO	1	8/9/2004
Ordnance components	273885	2	UXO	1	8/9/2004
Rocket motors, M222/M223 (DRAGON)	255118	1	UXO	1	8/9/2004
Rocket, 35mm, subcaliber, practice, M73	267192	10	UXO	2	8/10/2004
Projectile, 57mm, high explosive, M306 series	255135	2	UXO	1	8/10/2004
Explosive, bulk, high explosive	271832	2	UXO	1	8/10/2004
Ordnance components	272710	4	UXO	1	8/10/2004
Ordnance components	272712	6	UXO	1	8/10/2004
Projectile, 57mm, high explosive, M306 series	250639	2	UXO	1	8/11/2004
Projectile, 57mm, high explosive, M306 series	254768	4	UXO	1	8/11/2004
Projectile, 57mm, high explosive, M306 series	256169	2	UXO	1	8/11/2004
Projectile, 57mm, high explosive, M306 series	272707	8	UXO	1	8/11/2004
Projectile, 57mm, high explosive, M306 series	272708	4	UXO	1	8/11/2004
Projectile, 57mm, high explosive, M306 series	273814	5	UXO	1	8/11/2004
Projectile, 60mm, mortar, high explosive, M49 series	250640	12	UXO	1	8/11/2004
Ordnance components	272709	1	UXO	1	8/11/2004
Ordnance components	273813	6	UXO	1	8/11/2004
Projectile, 57mm, high explosive, M306 series	254773	4	UXO	1	8/12/2004
Projectile, 57mm, high explosive, M306 series	272565	4	UXO	1	8/12/2004
Projectile, 57mm, high explosive, M306 series	273748	6	UXO	1	8/12/2004
Projectile, 60mm, mortar, high explosive, M49 series	250641	15	UXO	1	8/12/2004
Projectile, 81mm, mortar, illumination, M301 series	273747	6	UXO	1	8/12/2004
Explosive, bulk, high explosive	273745	2	DMM	1	8/12/2004
Grenade, hand, illumination, MK I	273746	4	UXO	1	8/12/2004
Ordnance components	273815	4	UXO	1	8/12/2004
Projectile, 4.2inch, mortar, high explosive, M3 series	273750	12	UXO	1	8/16/2004
Projectile, 57mm, high explosive, M306 series	254782	2	UXO	1	8/16/2004
Projectile, 57mm, high explosive, M306 series	273749	6	UXO	1	8/16/2004
Projectile, 60mm, mortar, high explosive, M720	250642	3	UXO	1	8/16/2004
Projectile, 81mm, mortar, high explosive, M43 series	265567	12	UXO	1	8/16/2004

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 81mm, mortar, high explosive, M43 series	265568	12	UXO	1	8/16/2004
Ordnance components	272569	4	UXO	1	8/16/2004
Ordnance components	273687	2	UXO	1	8/16/2004
Projectile, 4.2inch, mortar, high explosive, M3 series	272087	6	UXO	1	8/17/2004
Projectile, 57mm, high explosive, M306 series	251340	2	UXO	1	8/17/2004
Projectile, 57mm, high explosive, M306 series	251341	5	UXO	1	8/17/2004
Projectile, 57mm, high explosive, M306 series	273694	1	UXO	1	8/17/2004
Projectile, 60mm, mortar, high explosive, M720	250516	1	UXO	1	8/17/2004
Projectile, 60mm, mortar, high explosive, M720	250517	3	UXO	1	8/17/2004
Projectile, 60mm, mortar, high explosive, M720	250518	1	UXO	1	8/17/2004
Projectile, 81mm, mortar, smoke, white phosphorous, M375 series	274480	1	UXO	1	8/17/2004
Fuze, projectile, point detonating, M48 series	313321	4	UXO	1	8/17/2004
Fuze, time, blasting, M700	273693	1	DMM	1	8/17/2004
Projectile, 57mm, high explosive, M306 series	251345	5	UXO	1	8/18/2004
Projectile, 57mm, high explosive, M306 series	251346	4	UXO	1	8/18/2004
Projectile, 57mm, high explosive, M306 series	251362	6	UXO	1	8/18/2004
Projectile, 57mm, high explosive, M306 series	262017	4	UXO	1	8/18/2004
Projectile, 57mm, high explosive, M306 series	262032	2	UXO	1	8/18/2004
Projectile, 60mm, mortar, high explosive, M49 series	250519	8	UXO	1	8/18/2004
Projectile, 60mm, mortar, high explosive, M49 series	274390	1	UXO	1	8/18/2004
Projectile, 81mm, mortar, high explosive, M43 series	270673	12	UXO	1	8/18/2004
Cap, blasting, non-electric, M7	313323	1	DMM	1	8/18/2004
Fuze, projectile, point detonating, M503 series	251350	6	UXO	1	8/18/2004
Rocket motors, M222/M223 (DRAGON)	262024	2	UXO	1	8/18/2004
Projectile, 4.2inch, mortar, high explosive, M3 series	274391	4	UXO	1	8/19/2004
Projectile, 57mm, high explosive, M306 series	250974	2	UXO	1	8/19/2004
Ordnance components	250973	6	UXO	2	8/19/2004
Ordnance components	271276	8	UXO	1	8/19/2004
Rocket motors, M222/M223 (DRAGON)	262037	10	UXO	1	8/19/2004
Projectile, 57mm, high explosive, M306 series	252004	3	UXO	1	8/23/2004
Projectile, 57mm, high explosive, M306 series	252006	3	UXO	1	8/23/2004
Projectile, 75mm, shrapnel, MK I	273217	48	UXO	1	8/23/2004
Fuze, projectile, point detonating, M48 series	250934	3	UXO	1	8/23/2004
Fuze, projectile, point detonating, M48 series	273212	3	UXO	1	8/23/2004
Fuze, projectile, point detonating, M557	252005	2	UXO	1	8/23/2004
Ordnance components	273222	2	UXO	1	8/23/2004
Projectile, 60mm, mortar, high explosive, M49 series	250935	10	UXO	1	8/24/2004
Fuze, grenade, hand, M10 series	271220	1	DMM	1	8/24/2004
Fuze, projectile, point detonating, M52 series	271231	15	UXO	1	8/24/2004
Projectile, 57mm, high explosive, M306 series	250938	2	UXO	1	8/25/2004
Projectile, 57mm, high explosive, M306 series	251864	6	UXO	1	8/25/2004
Projectile, 57mm, high explosive, M306 series	251865	3	UXO	1	8/25/2004
Projectile, 57mm, high explosive, M306 series	251867	2	UXO	1	8/25/2004
Projectile, 60mm, mortar, illumination, M83 series	271237	2	UXO	1	8/25/2004
Fuze, projectile, point detonating, M48 series	250936	4	UXO	1	8/25/2004

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Fuze, projectile, point detonating, M52 series	271247	1	UXO	1	8/25/2004
Fuze, projectile, point detonating, M52 series	271251	2	DMM	2	8/25/2004
Ordnance components	271239	2	UXO	1	8/25/2004
Projectile, 57mm, high explosive, M306 series	250939	6	UXO	1	8/26/2004
Fuze, grenade, hand, M206 series	273115	1	DMM	1	8/26/2004
Fuze, projectile, point detonating, M48 series	273112	8	UXO	1	8/26/2004
Projectile, 57mm, high explosive, M306 series	251878	3	UXO	1	8/30/2004
Projectile, 57mm, high explosive, M306 series	273128	8	UXO	1	8/30/2004
Projectile, 4.2inch, mortar, high explosive, M3 series	273131	12	UXO	1	8/31/2004
Ordnance components	251881	3	UXO	1	8/31/2004
Fuze, projectile, point detonating, M51 series	251226	2	UXO	1	9/7/2004
Projectile, 57mm, high explosive, M306 series	250412	18	UXO	1	9/8/2004
Projectile, 57mm, high explosive, M306 series	260554	7	UXO	1	9/13/2004
Rocket motors, M222/M223 (DRAGON)	260551	0	UXO	1	9/13/2004
Projectile, 60mm, mortar, high explosive, M49 series	267887	15	UXO	1	9/22/2004
Ordnance components	253698	5	UXO	1	9/23/2004
Projectile, 40mm, high explosive, M384	267863	6	UXO	1	9/27/2004
Projectile, 60mm, mortar, illumination, M83 series	295148	2	UXO	1	9/28/2004
Projectile, 60mm, mortar, high explosive, M49 series	267680	4	UXO	1	10/7/2004
Rocket, 35mm, subcaliber, practice, M73	296350	6	UXO	1	10/13/2004
Projectile, 57mm, high explosive, M306 series	271259	100	UXO	32	10/13/2004
Projectile, 60mm, mortar, high explosive, M49 series	271261	120	UXO	8	10/13/2004
Projectile, 75mm, high explosive, M48	271264	100	UXO	1	10/13/2004
Projectile, 81mm, mortar, high explosive, M43 series	271262	120	UXO	5	10/13/2004
Explosive, bulk, high explosive	271267	100	UXO	1	10/13/2004
Fuze, grenade, hand, M10 series	271260	40	UXO	5	10/13/2004
Fuze, mine, antitank, practice, M604	271265	48	UXO	3	10/13/2004
Ordnance components	271266	68	UXO	4	10/13/2004
Ordnance components	272418	12	UXO	1	10/19/2004
Projectile, 57mm, high explosive, M306 series	274038	4	UXO	1	10/21/2004
Projectile, 81mm, mortar, high explosive, M56	269432	10	UXO	1	10/21/2004
Projectile, 60mm, mortar, illumination, M83 series	252346	8	UXO	1	11/10/2004
Fuze, projectile, mechanical time super quick, M772	251935	10	UXO	1	11/22/2004
Fuze, projectile, point detonating, M524 series	262025	12	UXO	1	11/30/2004
Rocket motors, M222/M223 (DRAGON)	262023	12	UXO	56	11/30/2004
Projectile, 60mm, mortar, high explosive, M49 series	253205	5	UXO	1	1/19/2005
Projectile, 60mm, mortar, high explosive, M49 series	253206	5	UXO	1	1/19/2005
Projectile, 4.2inch, mortar, smoke, white phosphorous, M328 series	273734	6	UXO	1	2/24/2005
Projectile, 60mm, mortar, high explosive, M49 series	250792	8	UXO	1	3/3/2005
Projectile, 60mm, mortar, high explosive, M49 series	250787	8	UXO	1	3/7/2005
Ordnance components	274389	3	UXO	1	3/7/2005
Fuze, projectile, point detonating, M503 series	257010	4	UXO	1	3/10/2005
Rocket motors, M222/M223 (DRAGON)	255391	10	UXO	5	3/10/2005
Cartridge, 40mm, practice, M781	317955	2	DMM	1	3/21/2005

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Cartridge, 40mm, practice, M382	317953	2	DMM	1	3/21/2005
Projectile, 57mm, high explosive, M306 series	272592	1	UXO	1	3/22/2005
Projectile, 60mm, mortar, high explosive, M49 series	251643	10	UXO	1	4/11/2005
Rocket motors, M222/M223 (DRAGON)	254802	4	UXO	1	4/13/2005
Projectile, 57mm, high explosive, M306 series	273209	12	UXO	1	5/3/2005
Projectile, 60mm, mortar, high explosive, M49 series	265758	12	UXO	1	5/17/2005
Projectile, 40mm, practice, M407A1	275276	1	UXO	1	5/18/2005
Projectile, 60mm, mortar, high explosive, M49 series	265856	10	UXO	1	5/18/2005
Projectile, 81mm, mortar, high explosive, M43 series	271325	18	UXO	1	5/18/2005
Projectile, 60mm, mortar, high explosive, M49 series	270907	12	UXO	1	5/31/2005
Projectile, 60mm, mortar, high explosive, M49 series	271300	12	UXO	1	5/31/2005
Flare, surface, trip, M49 series	316008	7	UXO	1	6/16/2005
Cartridge, 40mm, practice, M382	302335	2	DMM	1	6/21/2005
Cartridge, 40mm, practice, M382	314462	8	DMM	1	6/21/2005
Cartridge, 40mm, practice, M382	315040	1	DMM	1	6/21/2005
Cartridge, 40mm, practice, M781	270976	6	DMM	2	6/22/2005
Cartridge, 40mm, practice, M781	270982	3	DMM	1	6/22/2005
Cartridge, 40mm, practice, M781	302315	5	DMM	1	6/22/2005
Cartridge, 40mm, practice, M781	302537	2	DMM	1	6/22/2005
Cartridge, 40mm, practice, M382	302368	2	DMM	1	6/22/2005
Projectile, 60mm, mortar, high explosive, M49 series	265593	1	UXO	1	6/27/2005
Projectile, 81mm, mortar, high explosive, M43 series	299555	16	UXO	1	6/28/2005
Cartridge, 40mm, practice, M781	270970	2	DMM	1	6/29/2005
Cartridge, 40mm, practice, M781	270972	4	DMM	1	6/29/2005
Projectile, 40mm, smoke, M713 series	296512	6	UXO	1	6/29/2005
Projectile, 60mm, mortar, high explosive, M49 series	252717	8	UXO	1	6/29/2005
Projectile, 60mm, mortar, high explosive, M49 series	252447	24	UXO	1	6/30/2005
Projectile, 81mm, mortar, high explosive, M43 series	298622	30	UXO	1	7/11/2005
Projectile, 60mm, mortar, high explosive, M49 series	250318	12	UXO	1	7/12/2005
Projectile, 60mm, mortar, high explosive, M49 series	253233	7	UXO	1	7/12/2005
Grenade, rifle, smoke, M23 series	303116	15	UXO	1	7/12/2005
Projectile, 40mm, high explosive, M406	271586	6	UXO	1	7/19/2005
Cartridge, 40mm, practice, M781	301188	1	DMM	1	7/19/2005
Projectile, 60mm, mortar, high explosive, M49 series	271628	6	UXO	1	7/19/2005
Projectile, 60mm, mortar, high explosive, M49 series	300744	1	UXO	1	7/21/2005
Projectile, 60mm, mortar, high explosive, M720	251100	16	UXO	1	7/25/2005
Fuze, projectile, point detonating, M48 series	251131	6	UXO	1	7/25/2005
Rocket, 2.36inch, smoke, HC, T27	271822	18	UXO	1	7/27/2005
Projectile, 81mm, mortar, high explosive, M43 series	251171	24	UXO	1	8/2/2005
Rocket, 2.36inch, high explosive antitank, M6 Series	270692	12	UXO	1	9/21/2005
Projectile, 60mm, mortar, high explosive, M49 series	270693	6	UXO	1	9/21/2005
Projectile, 81mm, mortar, high explosive, M43 series	265562	6	UXO	1	9/26/2005
Projectile, 81mm, mortar, high explosive, M43 series	265563	24	UXO	1	9/26/2005
Projectile, 81mm, mortar, high explosive, M43 series	265581	8	UXO	1	10/11/2005
Projectile, 81mm, mortar, high explosive, M43 series	265582	6	UXO	1	10/12/2005
Projectile, 81mm, mortar, high explosive, M43 series	265583	18	UXO	1	10/12/2005
Projectile, 81mm, mortar, high explosive, M43 series	270689	12	UXO	1	10/13/2005
Projectile, 4.2inch, mortar, smoke, white phosphorous, M328 series	270690	6	UXO	1	10/17/2005
Projectile, 81mm, mortar, high explosive, M56	270691	18	UXO	1	10/17/2005

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Grenade, hand, smoke, white phosphorous, M15	365965	0	DMM	1	8/29/2009
Projectile, 57mm, high explosive, M306 series	813867	0	UXO	1	3/23/2010
Projectile, 57mm, high explosive, M306 series	813870	0	UXO	1	3/25/2010
Projectile, 60mm, mortar, high explosive, M49 series	813868	0	UXO	1	3/25/2010
Projectile, 81mm, mortar, high explosive, M43 series	813872	0	UXO	1	3/26/2010
Rocket, 35mm, subcaliber, practice, M73	813873	0	UXO	1	3/30/2010
Projectile, 81mm, mortar, high explosive, M43 series	813876	0	UXO	1	4/27/2010
Projectile, 60mm, mortar, high explosive, M49 series	813482	12	UXO	22	7/27/2010
Explosive, bulk, high explosive	813480	12	DMM	1	7/28/2010
Projectile, 75mm, high explosive, MK I	813259	30	UXO	1	1/11/2011
Projectile, 57mm, high explosive, M306 series	803224	4	UXO	1	1/21/2011
Grenade, rifle, antitank, M9 series	837108	0	UXO	1	3/17/2014
Rocket, 35mm, subcaliber, practice, M73	837058	0	UXO	1	3/31/2014
Rocket, 35mm, subcaliber, practice, M73	837059	0	UXO	1	3/31/2014
Rocket, 35mm, subcaliber, practice, M73	837071	0	UXO	1	3/31/2014
Rocket, 35mm, subcaliber, practice, M73	837072	0	UXO	1	3/31/2014
Rocket, 35mm, subcaliber, practice, M73	837129	0	UXO	1	3/31/2014
Rocket, 35mm, subcaliber, practice, M73	837130	0	UXO	1	3/31/2014
Rocket, 35mm, subcaliber, practice, M73	837132	0	UXO	1	3/31/2014
Rocket, 35mm, subcaliber, practice, M73	837134	0	UXO	1	3/31/2014
Rocket, 35mm, subcaliber, practice, M73	837135	0	UXO	1	3/31/2014
Rocket, 35mm, subcaliber, practice, M73	837056	0	UXO	1	4/1/2014
Rocket, 35mm, subcaliber, practice, M73	837124	0	UXO	1	4/7/2014
Rocket, 35mm, subcaliber, practice, M73	837125	0	UXO	1	4/7/2014
Rocket, 35mm, subcaliber, practice, M73	837127	0	UXO	1	4/7/2014
Projectile, 81mm, mortar, practice, M43 series	837008	0	UXO	1	4/24/2014
Projectile, 60mm, mortar, high explosive, M49 series	836976	0	UXO	1	5/18/2014
Projectile, 60mm, mortar, high explosive, M49 series	836977	0	UXO	1	5/18/2014
Projectile, 57mm, high explosive, M306 series	831569	0	UXO	1	11/5/2014
Projectile, 105mm, high explosive, M1	831585	0	UXO	1	11/6/2014
Projectile, 57mm, high explosive, M306 series	831577	0	UXO	3	11/6/2014
Projectile, 57mm, high explosive, M306 series	831579	0	UXO	1	11/6/2014
Projectile, 57mm, high explosive, M306 series	831581	0	UXO	1	11/6/2014
Projectile, 57mm, high explosive, M306 series	831582	0	UXO	1	11/6/2014
Projectile, 57mm, high explosive, M306 series	831587	0	UXO	1	11/6/2014
Projectile, 57mm, high explosive, M306 series	831588	0	UXO	1	11/6/2014
Projectile, 60mm, mortar, high explosive, M49 series	831574	0	UXO	1	11/6/2014
Projectile, 81mm, mortar, high explosive, M56	831589	0	UXO	1	11/6/2014
Projectile, 57mm, high explosive, M306 series	831593	0	UXO	1	11/10/2014
Projectile, 75mm, high explosive, M48	831597	0	UXO	1	11/12/2014
Rocket motors, M222/M223 (DRAGON)	936561	0	UXO	1	2/17/2016
Projectile, 4.2inch, mortar, high explosive, M3 series	2142363	0	UXO	1	10/19/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142253	0	UXO	1	10/19/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142197	0	UXO	1	10/19/2016
Projectile, 81mm, mortar, smoke, white phosphorous, M57 series	2142403	0	UXO	1	10/20/2016
Projectile, 4.2inch, mortar, high explosive, M3 series	2142193	0	UXO	1	10/24/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142009	0	UXO	1	10/24/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142054	0	UXO	1	10/24/2016

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 60mm, mortar, high explosive, M49 series	2142236	0	UXO	1	10/24/2016
Projectile, 81mm, mortar, high explosive, M43 series	2141903	0	UXO	1	10/24/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142032	0	UXO	1	10/24/2016
Igniter, bomb, white phosphorous, M23	2142088	0	UXO	1	10/24/2016
Grenade, hand, smoke, white phosphorous, M15	2142135	0	UXO	1	10/24/2016
Projectile, 60mm, mortar, high explosive, M49 series	2141907	0	UXO	1	10/25/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142237	0	UXO	1	10/25/2016
Projectile, 81mm, mortar, high explosive, M56	2141914	0	UXO	1	10/25/2016
Projectile, 81mm, mortar, high explosive, M56	2141958	0	UXO	1	10/25/2016
Grenade, hand, smoke, white phosphorous, M15	2142309	0	UXO	1	10/25/2016
Projectile, 40mm, high explosive, M406	2142308	0	UXO	1	10/26/2016
Projectile, 40mm, high explosive, M406	2142314	0	UXO	1	10/26/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142038	0	UXO	1	10/27/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142119	0	UXO	1	10/27/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142269	0	UXO	1	10/27/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142270	0	UXO	1	10/27/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142401	0	UXO	1	10/27/2016
Projectile, 81mm, mortar, high explosive, M43 series	2141901	0	UXO	1	10/27/2016
Projectile, 4.2inch, mortar, high explosive, M3 series	2142044	0	UXO	1	10/31/2016
Projectile, 57mm, high explosive, M306 series	2142256	0	UXO	1	10/31/2016
Projectile, 57mm, high explosive, M306 series	2142265	0	UXO	1	10/31/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142194	0	UXO	1	10/31/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142274	0	UXO	1	10/31/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142335	0	UXO	1	10/31/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142388	0	UXO	1	10/31/2016
Projectile, 81mm, mortar, high explosive, M43 series	2141980	0	UXO	1	10/31/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142053	0	UXO	1	10/31/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142305	0	UXO	1	10/31/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142321	0	UXO	1	10/31/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142398	0	UXO	1	10/31/2016
Projectile, 4.2inch, mortar, high explosive, M3 series	2141962	0	UXO	1	11/1/2016
Projectile, 57mm, high explosive, M306 series	2142045	0	UXO	1	11/1/2016
Projectile, 57mm, high explosive, M306 series	2142081	0	UXO	1	11/1/2016
Projectile, 57mm, high explosive, M306 series	2142151	0	UXO	1	11/1/2016
Projectile, 57mm, high explosive, M306 series	2142239	0	UXO	1	11/1/2016
Projectile, 57mm, high explosive, M306 series	2142330	0	UXO	1	11/1/2016
Projectile, 57mm, high explosive, M306 series	2142349	0	UXO	1	11/1/2016
Projectile, 57mm, high explosive, M306 series	2142386	0	UXO	1	11/1/2016
Projectile, 57mm, high explosive, M306 series	2142402	0	UXO	1	11/1/2016
Projectile, 57mm, target practice, M306 series	2141976	0	UXO	1	11/1/2016
Projectile, 60mm, mortar, high explosive, M49 series	2141917	0	UXO	1	11/1/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142007	0	UXO	1	11/1/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142029	0	UXO	1	11/1/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142057	0	UXO	1	11/1/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142310	0	UXO	1	11/1/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142361	0	UXO	1	11/1/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142391	0	UXO	1	11/1/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142432	0	UXO	1	11/1/2016

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 75mm, high explosive, MK I	2142221	0	UXO	1	11/1/2016
Projectile, 81mm, mortar, high explosive, M56	2142174	0	UXO	1	11/1/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142000	0	UXO	1	11/2/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142093	0	UXO	1	11/2/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142097	0	UXO	1	11/2/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142178	0	UXO	1	11/2/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142258	0	UXO	1	11/2/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142346	0	UXO	1	11/2/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142385	0	UXO	1	11/2/2016
Projectile, 75mm, shrapnel, MK I	2142272	0	UXO	1	11/2/2016
Projectile, 81mm, mortar, high explosive, M374 series	2141896	0	UXO	1	11/2/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142318	0	UXO	1	11/2/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142325	0	UXO	1	11/2/2016
Projectile, 81mm, mortar, high explosive, M56	2142284	0	UXO	1	11/2/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142214	0	UXO	1	11/3/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142153	0	UXO	1	11/3/2016
Rocket, 35mm, subcaliber, practice, M73	2141956	0	UXO	1	11/7/2016
Projectile, 57mm, high explosive, M306 series	2142086	0	UXO	1	11/7/2016
Projectile, 57mm, high explosive, M306 series	2142191	0	UXO	1	11/7/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142165	0	UXO	1	11/7/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142223	0	UXO	1	11/7/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142383	0	UXO	1	11/7/2016
Projectile, 75mm, high explosive, M48	2142109	0	UXO	1	11/7/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142077	0	UXO	1	11/7/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142446	0	UXO	1	11/7/2016
Projectile, 81mm, mortar, high explosive, M56	2142025	0	UXO	1	11/7/2016
Projectile, 60mm, mortar, high explosive, M49 series	2141951	0	UXO	1	11/8/2016
Projectile, 60mm, mortar, high explosive, M49 series	2141989	0	UXO	1	11/8/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142340	0	UXO	1	11/8/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142416	0	UXO	1	11/8/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142430	0	UXO	1	11/8/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142132	0	UXO	1	11/8/2016
Grenade, hand, smoke, white phosphorous, M15	2142100	0	UXO	1	11/8/2016
Projectile, 60mm, mortar, high explosive, M49 series	2141986	0	UXO	1	11/9/2016
Projectile, 60mm, mortar, high explosive, M49 series	2141999	0	UXO	1	11/9/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142034	0	UXO	1	11/9/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142049	0	UXO	1	11/9/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142150	0	UXO	1	11/9/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142183	0	UXO	1	11/9/2016
Projectile, 60mm, mortar, high explosive, M49 series	2141910	0	UXO	1	11/14/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142478	0	UXO	1	11/14/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142569	0	UXO	1	11/14/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142655	0	UXO	1	11/14/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142706	0	UXO	1	11/14/2016
Projectile, 60mm, mortar, high explosive, M49 series	2143026	0	UXO	1	11/14/2016
Projectile, 81mm, mortar, high explosive, M43 series	2143037	0	UXO	1	11/14/2016
Projectile, 81mm, mortar, high explosive, M56	2142790	0	UXO	1	11/14/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142462	0	UXO	1	11/15/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142544	0	UXO	1	11/15/2016

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 60mm, mortar, high explosive, M49 series	2142661	0	UXO	1	11/15/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142758	0	UXO	1	11/15/2016
Projectile, 60mm, mortar, high explosive, M49 series	2142762	0	UXO	1	11/15/2016
Projectile, 75mm, high explosive, M48	2142730	0	UXO	1	11/15/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142535	0	UXO	1	11/15/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142665	0	UXO	1	11/15/2016
Projectile, 81mm, mortar, high explosive, M43 series	2142802	0	UXO	1	11/15/2016
Projectile, 81mm, mortar, high explosive, M43 series	2143010	0	UXO	1	11/15/2016
Projectile, 81mm, mortar, high explosive, M56	2142680	0	UXO	1	11/15/2016
Projectile, 60mm, mortar, high explosive, M49 series	2143353	7	UXO	1	1/18/2017
Projectile, 60mm, mortar, high explosive, M49 series	2143641	2	UXO	1	1/23/2017
Projectile, 81mm, mortar, high explosive, M43 series	2143131	3	UXO	1	1/24/2017
Projectile, 81mm, mortar, high explosive, M43 series	2143333	12	UXO	1	1/24/2017
Projectile, 81mm, mortar, high explosive, M43 series	2143370	2	UXO	1	1/24/2017
Projectile, 81mm, mortar, high explosive, M43 series	2143287	3	UXO	1	1/25/2017
Projectile, 81mm, mortar, high explosive, M43 series	2143801	2	UXO	1	1/26/2017
Projectile, 81mm, mortar, high explosive, M43 series	2144047	3	UXO	1	1/26/2017
Projectile, 81mm, mortar, high explosive, M43 series	2144082	3	UXO	1	1/26/2017
Projectile, 81mm, mortar, high explosive, M43 series	2144130	3	UXO	1	1/26/2017
Projectile, 60mm, mortar, high explosive, M49 series	2144408	3	UXO	1	1/31/2017
Projectile, 81mm, mortar, high explosive, M43 series	2144066	3	UXO	1	1/31/2017
Projectile, 81mm, mortar, high explosive, M43 series	2144196	3	UXO	1	1/31/2017
Projectile, 81mm, mortar, high explosive, M43 series	2144426	3	UXO	1	1/31/2017
Projectile, 75mm, high explosive, M48	2143826	2	UXO	1	2/1/2017
Projectile, 81mm, mortar, high explosive, M43 series	2144379	4	UXO	1	2/1/2017
Projectile, 60mm, mortar, high explosive, M49 series	2144370	3	UXO	1	2/2/2017
Projectile, 81mm, mortar, high explosive, M43 series	2143985	3	UXO	1	2/2/2017
Projectile, 60mm, mortar, high explosive, M49 series	2143962	3	UXO	1	2/6/2017
Projectile, 81mm, mortar, high explosive, M43 series	2143937	3	UXO	1	2/6/2017
Projectile, 81mm, mortar, high explosive, M43 series	2144875	3	UXO	1	2/8/2017
Projectile, 81mm, mortar, high explosive, M43 series	2145080	2	UXO	1	2/9/2017
Projectile, 81mm, mortar, high explosive, M43 series	2144739	3	UXO	1	2/13/2017
Projectile, 81mm, mortar, high explosive, M43 series	2144506	3	UXO	1	2/14/2017
Projectile, 81mm, mortar, high explosive, M43 series	2144894	3	UXO	1	2/15/2017
Projectile, 81mm, mortar, high explosive, M43 series	2144614	3	UXO	1	2/16/2017
Projectile, 60mm, mortar, high explosive, M49 series	2144992	3	UXO	1	2/21/2017
Projectile, 60mm, mortar, high explosive, M49 series	2144994	3	UXO	1	2/21/2017
Projectile, 60mm, mortar, high explosive, M49 series	2145056	3	UXO	1	2/21/2017
Projectile, 60mm, mortar, high explosive, M49 series	2144490	4	UXO	1	2/22/2017
Projectile, 60mm, mortar, high explosive, M49 series	2144520	3	UXO	1	2/22/2017
Projectile, 60mm, mortar, high explosive, M49 series	2144754	4	UXO	1	2/22/2017
Projectile, 60mm, mortar, high explosive, M49 series	2144979	3	UXO	1	2/22/2017
Projectile, 60mm, mortar, high explosive, M49 series	2145072	3	UXO	1	2/22/2017
Projectile, 4.2inch, mortar, high explosive, M3 series	2145475	3	UXO	1	2/23/2017
Projectile, 60mm, mortar, high explosive, M49 series	2145127	3	UXO	1	2/23/2017
Projectile, 60mm, mortar, high explosive, M49 series	2145130	4	UXO	1	2/23/2017
Projectile, 60mm, mortar, high explosive, M49 series	2145144	3	UXO	1	2/23/2017
Projectile, 60mm, mortar, high explosive, M49 series	2145202	3	UXO	1	2/23/2017
Projectile, 60mm, mortar, high explosive, M49 series	2145471	4	UXO	1	2/23/2017
Projectile, 60mm, mortar, high explosive, M49 series	2145630	3	UXO	1	2/23/2017

Model Description	UniqueID	Depth (inches)	MEC Type	Quantity	Date Found
Projectile, 60mm, mortar, high explosive, M49 series	2145633	3	UXO	1	2/23/2017
Projectile, 60mm, mortar, high explosive, M49 series	2145680	3	UXO	1	2/23/2017
Projectile, 60mm, mortar, high explosive, M49 series	2145803	4	UXO	1	2/23/2017
Projectile, 60mm, mortar, high explosive, M49 series	2145810	3	UXO	1	2/23/2017
Rocket motors, M222/M223 (DRAGON)	2147114	0	UXO	1	4/11/2017
Projectile, 57mm, high explosive, M306 series	2149334	6	UXO	1	11/2/2017
Projectile, 57mm, high explosive, M306 series	2150081	12	UXO	1	11/22/2017
Projectile, 57mm, high explosive, M306 series	2149920	7	UXO	1	11/27/2017
Projectile, 60mm, mortar, high explosive, M49 series	2150801	24	UXO	1	12/21/2017
Projectile, 60mm, mortar, high explosive, M49 series	2150713	24	UXO	1	1/4/2018
Projectile, 60mm, mortar, high explosive, M49 series	2150719	6	UXO	1	1/10/2018

Total = 2124

APPENDIX C
Responses to Comments



RESPONSES TO COMMENTS

Document: Technical Memorandum MEC Remedial Action Track 3 Impact Area MRA MRS-Ranges 43-48 South, Former Fort Ord, California, February 2019

Commenting Organization: United States Environmental Protection Agency Region IX (EPA)

Name: Maeve Clancy

Date of Comments: April 10, 2019

General Comment 1:

The Technical Memorandum, Munitions and Explosives of Concern (MEC) Remedial Action, Track 3 Impact Area MRA, MRS Ranges 43-48 South, Former Fort Ord, California, dated February 2019 (hereinafter referred to as the TM MEC RA T3 IA MRA Ranges 43-48S) includes figures that display munitions that are identified as munitions and explosives of concern (MEC), but are not identified by filler type and/or model. While these items are effectively identified using the standard nomenclature found in Appendix A (Types of Munitions by Range), and in Appendix B (Details of Munitions Discovered), they are often noted elsewhere (particularly on figures) by size or generic name only. In these instances, the filler type (e.g., HE, illumination) and model numbers are not listed. If this is a space issue on the figures, simply including the filler type and omitting the model numbers would assist in the analysis of the information provided thereon. As illumination and smoke projectiles are often fired into areas where their high explosive counterparts are not fired, this information is of value in analyzing the use of the area involved and the munitions materials most likely present.

Please revise the figures that do not have the type of munition noted to include the noted information. If model numbers (i.e., M or Mk) are available, please include them in the revision if space permits. If they are not available, or if the space available will not allow this, the inclusion of the munition filler type will suffice.

Response to General Comment 1:

Munitions filler types and model numbers have been added to Figure 6.

Specific Comment 1:

Section 2.2.2, Fuel-Break Subsurface MEC Removal, Page 7: The second paragraph of the section states, "Quality control (QC) components of this action overseen by the UXO Quality Control Specialist (UXOQCS) consisted of daily instrument checks, audits of work plan compliance by the field teams and a minimum 10 percent re-sweep of each grid by the UXOQCS." While this does generally present the QC process for the area, no mention of the Quality



RESPONSES TO COMMENTS

Assurance (QA) procedures is provided. Please revise the cited paragraph to include the QA process for the area involved or reference where it is presented elsewhere in the TM MEC RA T3 IA MRA Ranges 43-48S.

Response to Specific Comment 1:

The following text has been added to Section 2.2.2: Quality assurance (QA) components of this action overseen by the USACE Ordnance and Explosives Safety Specialist (OESS) consisted of daily field team checks and a partial re-sweep of each completed grid. All grids passed QA checks.

Specific Comment 2:

Section 2.2.3 MRS-Ranges 43-48 - Time Critical Removal Action, Page 7: The last paragraph of this section notes that, "The Technical Memorandum Ranges 43 Through Range 48 Surface Clearance, Former Fort Ord, California (Parsons, 2001) described the QC procedures implemented for this work, including 10% visual inspection." No discussion of, or reference to, the QA process is provided. Please revise the cited paragraph to include the QA process for the area involved or reference where it is presented elsewhere in the TM MEC RA T3 IA MRA Ranges 43-48S.

Response to Specific Comment 2:

The following text has been added to Section 2.2.3: QA components of this action overseen by the USACE OESS consisted of a visual inspection following the QC inspection. If three UXO or UXO-like items were found, the grid was reswept. No negative finding was reported in the Technical Information Paper (Parsons, 2002). The area of the TCRA was subsequently subjected to a surface removal as part of the interim action.

Specific Comment 3:

Section 4.0, Conclusions and Recommendations, Page 30: This section does not specifically address the Special Case Areas or the Non-Completed Areas that are not located in the Range 48 fan area and are shown on Figure 5, Special Case and Non-Completed Areas. Please revise the section to provide conclusions/recommendations concerning these areas.

Response to Specific Comment 3:

The following text has been added to Section 4.0: Special Case and Non-Completed Areas shown on Figure 5 are provided for informational purposes. These areas are outside of the Range 48 fan area, do not exhibit the same issues noted in the Range 48 fan, and have had surface MEC removal performed. No additional work in these areas has been identified based on the evaluation.



RESPONSES TO COMMENTS

Minor Comment 1:

Table 3-2, Previous Range Use, Page 28: This table lists a "Rrojectile, 90mm, HEAT, M348." This should be revised to read, "Projectile, 90mm, HEAT, M348." Please make this correction.

Response to Minor Comment 1:

Correction made as requested.

Minor Comment 2:

Appendix B, Details of Munitions Discovered: This table does not provide a total of the MEC discovered. Please revise the table to include this information.

Response to Minor Comment 2:

Table revised as requested. Additionally, table format has been revised and replaced due to a previous sorting issue.



RESPONSES TO COMMENTS

Document: Technical Memorandum MEC Remedial Action Track 3 Impact Area
MRA MRS-Ranges 43-48 South, Former Fort Ord, California,
February, 2019

Commenting Organization: Department of Toxic Substances Control (DTSC)

Name: Vlado Arsov

Date of Comments: April 11, 2019

Comment 1:

Figure 8: Please include a description of the gray area in the legend.

Response to Comment 1:

The gray area (areas without color) are the underlying base aerial photo image. A description of the gray area has been added to the notes in Figure 8.