

**MRS-RANGES 43-48 SOUTH
MUNITIONS AND EXPLOSIVES OF CONCERN
REMEDIAL ACTION REPORT
FORMER FORT ORD, CALIFORNIA**

**February 2020
PRELIMINARY DRAFT**

Prepared For:



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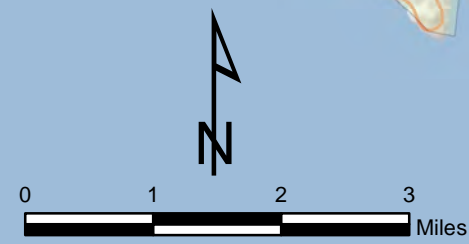
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Table 4
MEC Items Found During All Remedial Actions

Description	Number of Items	
	MRS Ranges 43-48 South	
	UXO	DMM
40mm Ferret	1	
Ferret round, 12 Gauge	1	
Grenade, hand, smoke, white phosphorous, M15	7	
Grenade, rifle, smoke, white phosphorous, M19 series	1	
Igniter, bomb, white phosphorous, M23	2	
Projectile, 105mm, high explosive, M1	1	
Projectile, 4.2inch, mortar, high explosive, M3 series	33	
Projectile, 4.2inch, mortar, high explosive, M329 series	7	
Projectile, 4.2inch, mortar, smoke, white phosphorous, M328 series	1	
Projectile, 40mm, cluster, white star, M585	1	
Projectile, 40mm, high explosive, M406	5	
Projectile, 40mm, high explosive, SF, M463	1	
Projectile, 40mm, parachute, M583 series	1	
Projectile, 57mm, high explosive antitank, M307	1	
Projectile, 57mm, high explosive, M306 series	34	1
Projectile, 57mm, smoke, white phosphorous, M308 series	1	
Projectile, 57mm, target practice, M306 series	1	
Projectile, 60mm, mortar, high explosive, M49 series	244	
Projectile, 75mm, high explosive, M48	6	
Projectile, 75mm, high explosive, MK I	1	
Projectile, 75mm, shrapnel, MK I	1	
Projectile, 81mm, mortar, high explosive, M374 series	1	
Projectile, 81mm, mortar, high explosive, M43 series	87	
Projectile, 81mm, mortar, high explosive, M56	28	
Projectile, 81mm, mortar, smoke, white phosphorous, M57 series	6	
Projectile, 4.2inch, screening, smoke, FS, M2 series	1	
Rocket motors, M222/M223 (Dragon)	2	
Rocket, 2.36inch, high explosive antitank, M6 Series	1	
Rocket, 3.5inch, smoke, white phosphorous, M30	1	
Rocket, 35mm, subcaliber, practice, M73	1	
Rocket, 66mm, high explosive antitank, M72 series	2	
Simulator, projectile, airburst, M74 series	1	
Total =	482	1

483

DMM = Discarded Military Munitions
UXO = Unexploded Ordnance



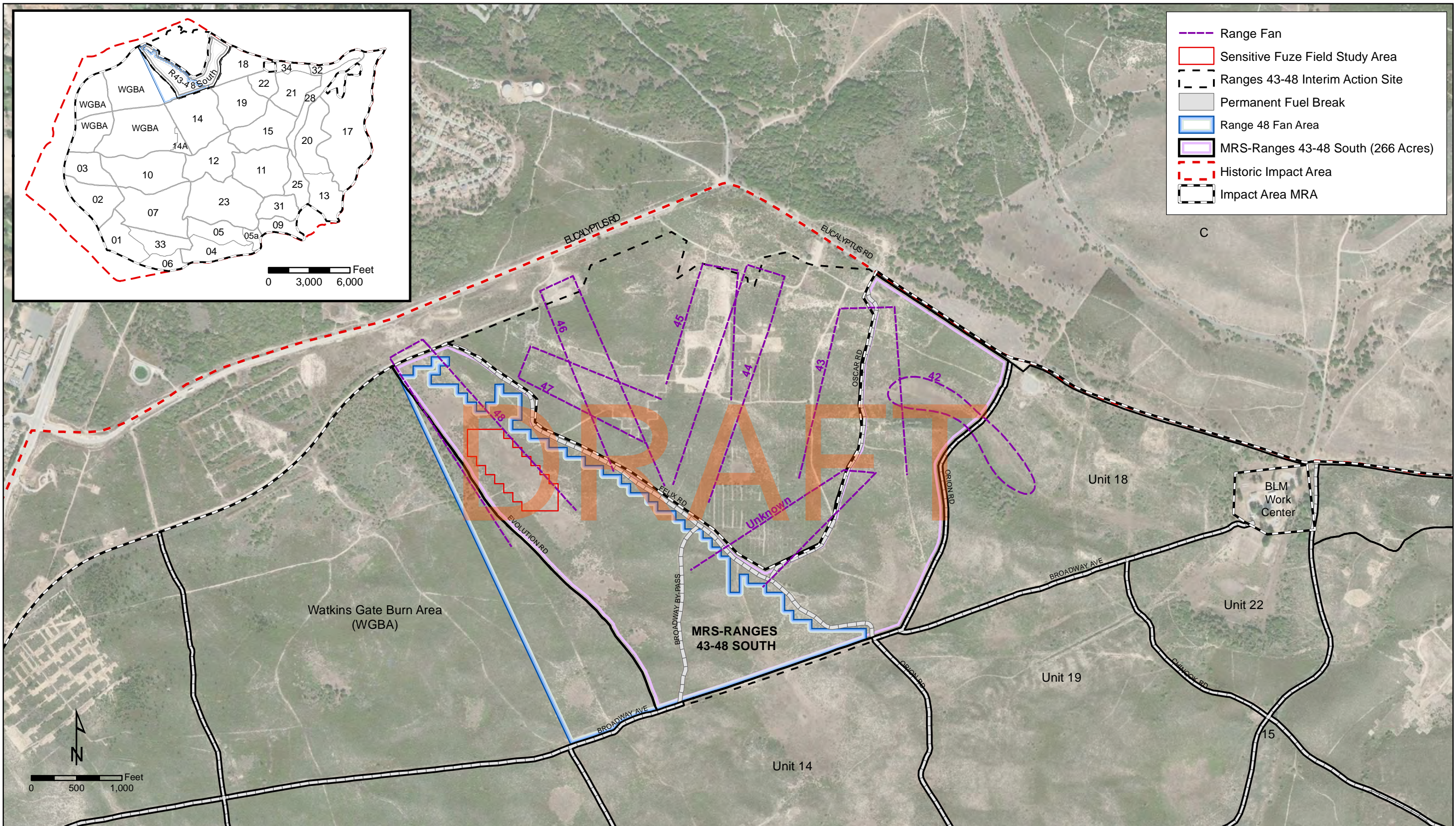
Legend

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



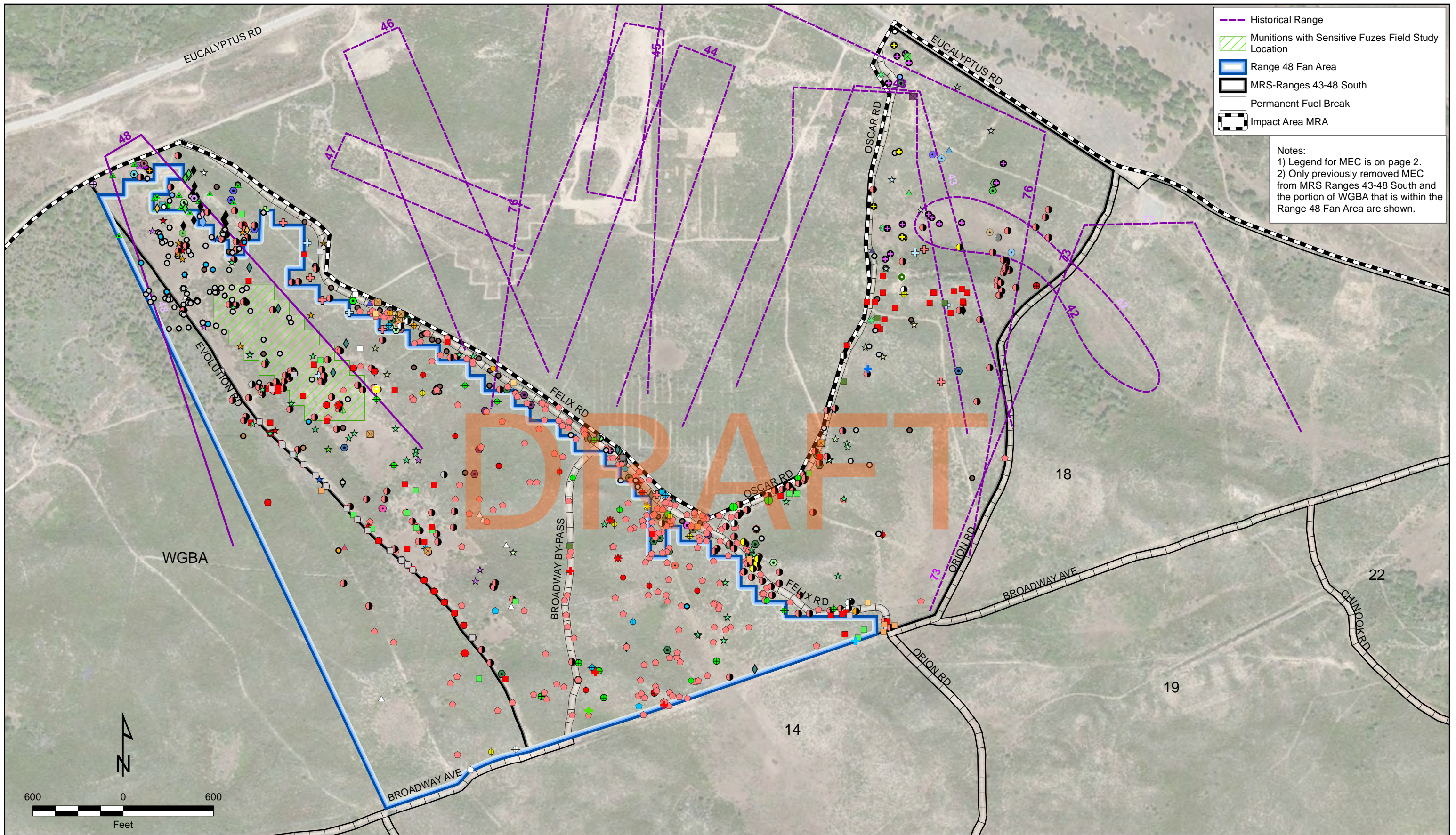
MRS-Ranges 43-48 South
 Remedial Action Report
 Track 3 Impact Area MRA
 Former Fort Ord, California

Figure 1
 Track 3 Impact Area MRA
 Regional Location Map



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

Figure 2
 MRS-Ranges 43-48 South
 Site Overview



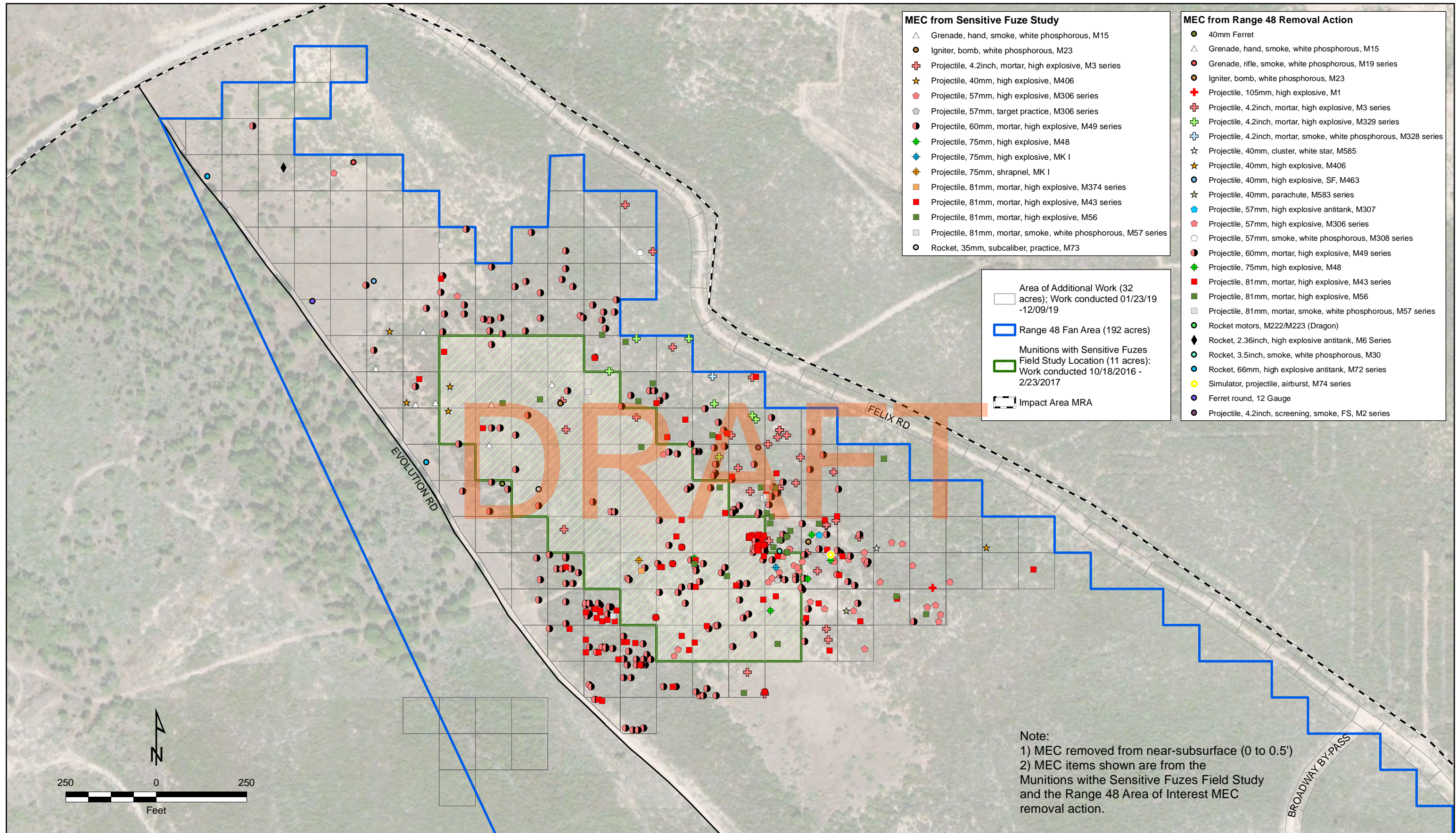
MRS-Ranges 43-48 South
Remedial Action Report
Track 3 Impact Area MRA
Former Fort Ord, California

Figure 3
Locations of MEC Removed
Prior to Remedial Action



**Ranges MRS-43-48 South Remedial Action Report
MEC from Previous Removal Actions**

- 75MM (Model Unknown)*
- Ash, pyrotechnic
- Burster, 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, antipersonnel, 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, 4.2inch, mortar, high explosive, M3 series
- ⊕ Projectile, 4.2inch, mortar, high explosive, M329 series
- ⊕ Projectile, 4.2inch, 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, 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, M371A1
- ◇ Propellant, rocket
- ◇ Rocket motor, 2.36inch
- ◇ Rocket motor, 3.5inch
- ◇ Rocket motors, M222/M223 (DRAGON)
- ◆ Rocket, 2.36inch, high explosive antitank, M6 Series
- ◆ Rocket, 2.36inch, practice, M7
- ◆ Rocket, 2.36inch, 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



- MEC from Sensitive Fuze Study**
- △ Grenade, hand, smoke, white phosphorous, M15
 - Igniter, bomb, white phosphorous, M23
 - ⊕ Projectile, 4.2inch, mortar, high explosive, M3 series
 - ★ Projectile, 40mm, high explosive, M406
 - ⬠ Projectile, 57mm, high explosive, M306 series
 - ⬠ Projectile, 57mm, target practice, M306 series
 - Projectile, 60mm, mortar, high explosive, M49 series
 - ⬠ Projectile, 75mm, high explosive, M48
 - ⬠ Projectile, 75mm, high explosive, MK I
 - ⬠ Projectile, 75mm, shrapnel, MK I
 - ⬠ Projectile, 81mm, mortar, high explosive, M374 series
 - ⬠ Projectile, 81mm, mortar, high explosive, M43 series
 - ⬠ Projectile, 81mm, mortar, high explosive, M56
 - ⬠ Projectile, 81mm, mortar, smoke, white phosphorous, M57 series
 - Rocket, 35mm, subcaliber, practice, M73

- MEC from Range 48 Removal Action**
- 40mm Ferret
 - △ Grenade, hand, smoke, white phosphorous, M15
 - Grenade, rifle, smoke, white phosphorous, M19 series
 - Igniter, bomb, white phosphorous, M23
 - ⊕ Projectile, 105mm, high explosive, M1
 - ⊕ Projectile, 4.2inch, mortar, high explosive, M3 series
 - ⊕ Projectile, 4.2inch, mortar, high explosive, M329 series
 - ⊕ Projectile, 4.2inch, mortar, smoke, white phosphorous, M328 series
 - ☆ Projectile, 40mm, cluster, white star, M585
 - ★ Projectile, 40mm, high explosive, M406
 - Projectile, 40mm, high explosive, SF, M463
 - ☆ Projectile, 40mm, parachute, M583 series
 - ⬠ Projectile, 57mm, high explosive antitank, M307
 - ⬠ Projectile, 57mm, high explosive, M306 series
 - ⬠ Projectile, 57mm, smoke, white phosphorous, M308 series
 - Projectile, 60mm, mortar, high explosive, M49 series
 - ⬠ Projectile, 75mm, high explosive, M48
 - ⬠ Projectile, 81mm, mortar, high explosive, M43 series
 - ⬠ Projectile, 81mm, mortar, high explosive, M56
 - ⬠ Projectile, 81mm, mortar, smoke, white phosphorous, M57 series
 - Rocket motors, M222/M223 (Dragon)
 - ◆ Rocket, 2.36inch, high explosive antitank, M6 Series
 - Rocket, 3.5inch, smoke, white phosphorous, M30
 - Rocket, 66mm, high explosive antitank, M72 series
 - Simulator, projectile, airburst, M74 series
 - Ferret round, 12 Gauge
 - Projectile, 4.2inch, screening, smoke, FS, M2 series

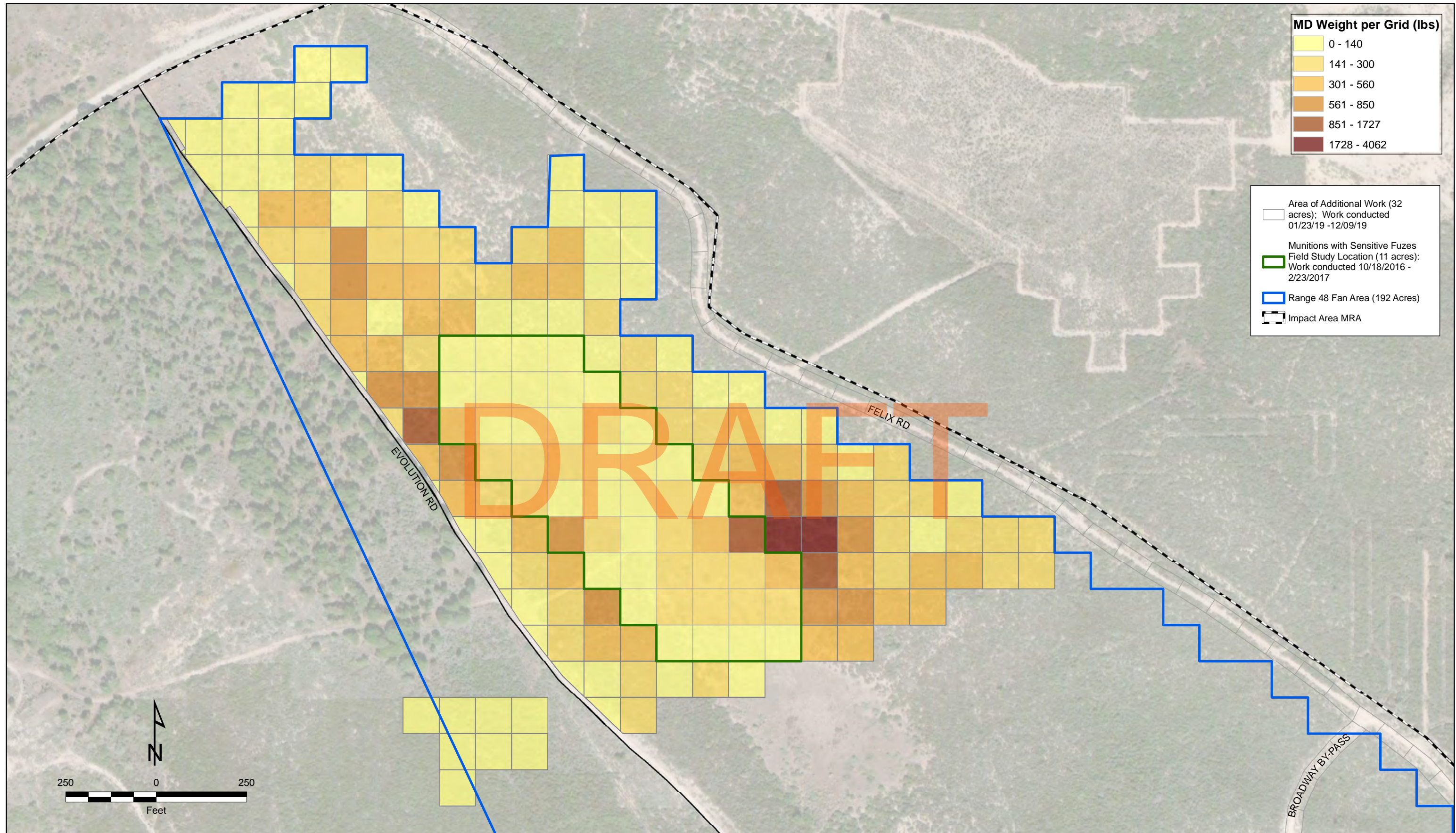
- Area of Additional Work (32 acres); Work conducted 01/23/19 -12/09/19
- ▭ Range 48 Fan Area (192 acres)
- ▨ Munitions with Sensitive Fuzes Field Study Location (11 acres); Work conducted 10/18/2016 - 2/23/2017
- ⬠ Impact Area MRA

Note:
 1) MEC removed from near-subsurface (0 to 0.5')
 2) MEC items shown are from the Munitions with Sensitive Fuzes Field Study and the Range 48 Area of Interest MEC removal action.

MRS Ranges 43-48 South
 Remedial Action Report
 Munitions and Explosives of Concern (MEC) Removal
 Impact Area MRA
 Former Fort Ord, California

Figure 5
MEC Items Removed
During Remedial Action





MRS Ranges 43-48 South
Remedial Action Report
Munitions and Explosives of Concern (MEC) Removal
Impact Area MRA
Former Fort Ord, California

Figure 6
MD Removed
During Remedial Action

