

**Independent Third-Party Quality Assurance Work
Summary Report for
Munitions and Explosives of Concern Activities at
Interim Action Ranges Munitions Response Area
Former Fort Ord Facility, Monterey, California**

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28-006

Prepared for:



Fort Ord Reuse Authority
920 Second Street, Suite A
Marina, California 93933

Prepared by:



4585 Pacheco Boulevard, Suite 200
Martinez, California 94553
(925)969-0750

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Acronyms and Abbreviations

AOC	Administrative Order on Consent
Army	United States Army
DGM	digital geophysical mapping
DQOs	data quality objectives
ERRG	Engineering/Remediation Resources Group, Inc.
ESCA	Environmental Services Cooperative Agreement
FORA	Fort Ord Reuse Authority
GPS	global positioning system
IAR	Interim Action Range
InDepth	InDepth Corporation
MEC	munitions and explosives of concern
MRA	munitions response area
NCA	Non-Completed Area
QA	quality assurance
QC	quality control
QAOP	Quality Assurance Oversight Professional
QASP	Quality Assurance Surveillance Plan
SCA	Special Case Area
SOP	Standard Operating Procedure
UXO	unexploded ordnance
Weston	Weston Solutions, Inc.

Section 1. Introduction

In spring 2005, the U.S. Army (Army) and the Fort Ord Reuse Authority (FORA) entered into negotiations to execute an Army-funded Environmental Services Cooperative Agreement (ESCA) leading to the transfer of 3,340 acres of the former Fort Ord prior to regulatory environmental sign-off. In early 2007, the Army awarded FORA a grant to perform munitions cleanup on the ESCA parcels. FORA also entered into an Administrative Order on Consent (AOC) with the U.S. Environmental Protection Agency and the California Department of Toxic Substances Control. The AOC defined conditions under which FORA assumes responsibility for the Army's remediation of the ESCA parcels. To complete the AOC-defined work, FORA entered into a Remediation Services Agreement with LFR Inc to provide munitions and explosives of concern (MEC) remediation services. Due to the acquisition of LFR Inc by ARCA ISS Inc from this point forward in the report this organization will be called ARCA ISS. Arcadis partnered with Weston Solutions, Inc. (Weston), who performed the actual MEC removal services. FORA, having the responsibility for management and quality of the ESCA remediation program, developed a Quality Assurance Surveillance Plan (QASP) (FORA, 2009). FORA contracted Engineering/Remediation Resources Group, Inc. (ERRG) as an independent third-party Quality Assurance Oversight Professional (QAOP) to implement the QASP.

ERRG implemented quality assurance (QA) efforts in support of the design study for the Interim Action Range (IAR) Munitions Response Area (MRA) Range 44 and 47 Special Case Areas (SCA) and Central Area Non-Complete Areas (NCA) in compliance with the QASP to satisfy regulatory agency concerns. It is recognized that a MEC removal action may not successfully acquire and recover all MEC therefore the regulatory agencies have expressed concern regarding the residual risk that remains after MEC removals have taken place, particularly in areas that are slated as planned for community development with borderland that will interface habitat reserve (with administrative controls). This report is intended to document ERRG's efforts in providing the ESCA MEC Remediation Program with Third-Party Quality Assurance oversight, as required by the regulatory agencies, in addition to the Quality Control provided by Weston during their field work.

Section 2. ESCA RP Quality Assurance and Quality Control Efforts

The ESCA RP Team developed a QA and QC project plan to provide unbiased evidence of the quality of the data acquired and decisions made during the MEC removals, as evaluated against the measurement performance criteria described in the Final Phase II Interim Action Work Plan, Interim Action Ranges Munitions Response Area, Former Fort Ord. May 24, 2011 (Fort Ord Administrative Record (AR) No. ESCA-0252B) and Field Variance Forms (FVF) IARWP-001, IARWP-002, IARWP-003, and IARWP-004 (ESCA RP Team 2011). The measurement performance criteria established are called data quality objectives (DQOs). The primary methods used to provide evidence of compliance with DQOs are:

- Prequalification of policies and procedures
- Auditing of field activities
- Acceptance sampling of completed work

The FORA ESCA Remediation Program is committed to using the best available (and appropriate) detection technology for locating subsurface MEC as established by the Ordnance Detection and Discrimination Study and subsequent projects ([Parsons Corporation, 2002](#)). Digital geophysical mapping (DGM) as the primary technology used to locate subsurface MEC. However, if physical impediments were encountered that prevented the use of DGM, manual analog detection technologies were used.

The evaluation of MEC removal was accomplished through auditing. Two methods of auditing were used: performance and procedural. Performance audits were accomplished by burying a MEC simulant within the project boundaries (a procedure known as “blind seeding”). The system performance was evaluated based on whether the MEC simulant was located and recovered. Procedural audits were accomplished by checking the field operations against the policies and procedures in place.

Blind seed items were placed within areas investigated. The Unexploded Ordnance (UXO) Quality Control Specialist, in consultation with the Remediation Project Manager, selected the locations of the seed items. Seeds locations were recorded using a survey-grade global positioning system (GPS) or equivalent within DGM grids. The blind seeds consisted of MEC simulants buried no deeper than the depth interval at which the geophysical instrument used had a 100 percent possibility of detection. The locations of the seed items were not provided to the other project personnel. QC and QA personnel reviewed the DGM data against the seed locations.

ERRG's continuous review of the ESCA RP team's implementation of the project QC/QA Plan resulted in no deficiencies noted during the observed field operations conducted Weston in the IAR MRA. Field inspection reports are located in [Appendix A](#).

Section 3. FORA Quality Assurance Efforts

FORA developed a QASP ([FORA, 2009](#)) and contracted ERRG as an independent third-party QAOP to implement the QASP. The QASP addresses specific requirements of the Comprehensive Environmental Response, Compensation, and Liability Act pursuant to the terms and conditions of the ESCA Remediation Program and site-specific work plans governing the removal of MEC at the ESCA parcels. The QASP objectives are to:

- Set forth procedures and guidelines that the independent third-party QAOP applies to monitor and evaluate the quality and safety of the fieldwork and related documentation.
- Outline procedures for working with ESCA RP Team to monitor their QC/QA program.
- Outline procedures for correcting deficiencies.

The surveillance methods used by the QAOP included:

- 100 Percent Inspection – At the completion of key milestones, performance was evaluated through 100 percent inspection (e.g., document review).
- Periodic Progress Inspection – Periodic inspections may be conducted to evaluate progress toward and/or completion of key milestones and deliverables.
- Performance Metrics – Two categories, quantitative and qualitative, were established. Tasks that could be physically measured or evaluated were in the quantitative category, while tasks that were more subjective were in the qualitative category. Qualitative assessments and observations as observed by the QAOP were entered in the comments block of the QA Report ([Appendix A](#)).

The QAOP evaluated Weston’s program quality performance through the following methods:

- Review of QC documentation and activities
- Qualitative review of QC data for instrument functionality checks
- Qualitative review of QC root causes failure analyses
- Observe adherence to the approved explosive safety submissions
- Analog QA survey of sloped area at IAR MRA Range 47 SCA
- Observe work plan implementation and adherence
- Observe field activities

- Provide additional independent third-party blind seeding of DGM areas and perform dig sheet review for detection and recovery of blind seed items
- Review of MEC waste management documentation

Section 4. Digital Geophysical Mapping Quality Assurance Procedures

ERRG partnered with InDepth Corporation (InDepth) to provide QA of DGM activities. Mr. Brian Hecker, a registered California Geophysicist, of InDepth, and ERRG observed the field QC procedures and activities performed by Weston. Weston collected site-specific data to comprehensively analyze the entire digital geophysical survey including data acquisition, processing, and interpretation. A seeding program was implemented in accordance with the QASP (FORA, 2009). The following digital geophysical activities were monitored:

- Operator performance
- Equipment performance
- Operator and equipment procedures
- UXO detection to depths of concern
- Removal of UXO of concern

The following subsections discuss monitoring of operator performance, acquisition of digital field data, and the blind seeding program.

4.1. OPERATOR PERFORMANCE

The InDepth QA Geophysicist evaluated Weston's geophysical instrument operators by observing their instrument operation, data acquisition, and reacquisition procedures. Geophysical data processors were evaluated by analyzing the quality of the data processing, as shown in the processed data files and the target selection and interpretation results listed in the dig sheets. [Appendix B](#) contains detailed results of the operator performance auditing.

4.2. DIGITAL FIELD DATA ACQUISITION

The QA Geophysicist evaluated the acquired and processed data. Data that indicated any of the following issues were noted:

- Data gaps along survey lines
- Unreasonable data (e.g., systematic "spikes" or "noise")
- Data incongruity across survey grids

- Inadequate data density along survey traverse
- Lack of accurate, precise locations; survey line orientation
- Inadequate and incomplete site survey coverage
- Missing, incomplete, or noncompliant instrument standardization checks

At the completion of data evaluation activities, the QA Geophysicist prepared a list of desired geophysical QA picks for ERRG to investigate for further verification. An ERRG MEC QA Specialist performed the verification digs on all selected geophysical QA picks on November 08, 2012. [Appendix B](#) contains detailed results of the evaluation of the IAR MRA Design Study and Interim Remedial Action GEM data.

4.3. BLIND SEEDING PROGRAM

ERRG implemented a blind seeding program to evaluate Weston's capabilities to detect specific MEC at the highest levels of quality and to evaluate the spatial survey coverage of the investigation area. The blind seeds were industry-accepted MEC simulants consisting of 1-inch diameter by 4-inch length pipe and 2-inch diameter by 8-inch length pipe. Each simulant was identified and inventoried with a serial number for identification after recovery.

QA blind seeding actions were performed in accordance with the ERRG QA Blind Seed Standard Operating Procedure (SOP) ([Appendix C](#)). As specified in the ERRG Blind Seed SOP, at the time of emplacement, the blind seed's depth, bearing, attitude, and locations were recorded, documented, and tracked by the QA Specialist to ensure their confidentiality and to maintain the validity of QA seed objectives. The blind seed placement provided a method to check survey detection ability and the ability of the UXO team to detect anomalies.

The QA seed tracking documents, provided in [Appendix D](#), contain seed numbers and location information, such as GPS coordinates. The ERRG QA Manager strictly maintained the QA seed tracking documents to ensure confidentiality of the blind seeds until their discovery. Weston recorded the discovery of blind seeds in the ESCA Seed Recovery Tables, which was reviewed by the ERRG QA Manager to verify the discovered blind seed's location with the QA blind seed tracking documents. As verified by the ERRG QA Manager, Weston's discovery of all QA-emplaced blind seeds confirmed the capability of DGM to detect anomalies and that all anomalies were removed.

All blind seed items installed at Range 47 SCA have been recovered during Design Study and Interim Remedial Action field activities at the IAR MRA. All blind seeds installed at Range 44 SCA and Central Area NCAs have not been recovered, only 3 of the 8 items have been reported recovered by Weston. Analysis shows that the five seeds were not recovered because one was outside the design area and the other four were not applicable to the design study. The field reports in [Appendix](#) detail the placement

of the find seeds [Appendix E](#) provides tables summarizing ESCA RP Team's reporting of the recovered seeds.

Section 5. References

Fort Ord Reuse Authority, 2009. "Quality Assurance Surveillance Program, ESCA Remediation Program." October.

Final Phase II Interim Action Work Plan, Interim Action Ranges Munitions Response Area, Former Fort Ord. May 24, 2011 (Fort Ord Administrative Record (AR) No. ESCA-0252B)

IARWP-001 modifying the Final Phase II Interim Action Work Plan, Interim Action Ranges Munitions Response Area, Former Fort Ord, California, FORA ESCA - Blow in place procedures for Interim Action Ranges MRA. AR ESCA-0252B.2 (7/27/2011)

IARWP-002 modifying the Final Phase II Interim Action Work Plan, Interim Action Ranges Munitions Response Area, Former Fort Ord, California. AR ESCA-0252B.3 (8/11/2011)

IARWP-003 modifying the Final Phase II Interim Action Work Plan, Interim Action Ranges Munitions Response Area, Former Fort Ord, California. Interim Remedial Action recommended for Range 47 Special Case Area. AR ESCA-0252B.4 (10/6/11)

IARWP-004 modifying the Final Phase II Interim Action Work Plan, Interim Action Ranges Munitions Response Area, Former Fort Ord, California. AR ESCA-0252B.5 (11/22/2011)

Parsons Corporation, 2002. "Final Ordnance Detection and Discrimination Study Report, Fort Ord, California." January 15.

Appendix A. ERRG Field QA Oversight Reports



Project: Former Ft. Ord/Weston 3rd Party QA
Project No. 28-006
Location: Former Ft. Ord, Monterey, CA
Prepared by: German Peña

MEC QA DAILY REPORT

Date: 28 June 2011

Weather Conditions: Cloudy/Rainy Temperature: Low: 54 High: 64

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams performing Mag and Dig operations, Interim Action Range, Grids B2I8C3 & B2I8G1.
- ERRG QA Specialist Performed QA inspections in the Future East Garrison, Parcel, E11b.7.1.1, Grids C4G7E8, C4E5H0, C4G6H7, & C4E5D5.
- QA Specialist performed QA Seed placement in the Eucalyptus Road Extension project area.
- QA Specialist observed sift plant operations at Interim Action **Range**.

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *N/A*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:

(Assure performing contractor QC is in compliance with the Work Plan)

- Worked with Weston UXOQC on QA grid inspections and blind seeding operations.

4. QA AUDITS AND ACTIVITIES:

- QA placed QA seeds at the Eucalyptus Roadway Extension project area. Locations documented in the QA Seed report.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing Sifting Operations and Eucalyptus Roadway Extension operations.
 1. Munitions Related Debris found: IAR MRA Range 47 SCA Sifting 40MM; M407 components
 2. MEC found: None
- QA observed Weston Teams performing Mag and Dig operations, Interim Action Range, Grids B2I8A3 & B2I8G1.
 1. Safe work practices observed
 2. Lane control observed
 3. Proper and safe dig techniques used
 4. Excavations cleared of anomalies
 5. Range debris recovered in both grids: None
 6. Munitions Related Debris found in both grids: Fragmentation scrap and M73 35MM Sub Caliber components.
 7. MEC found in grid: None

- QA performed QA grid inspections in Future East Garrison, Parcel, E11b.7.1.1, Grids C4G7E8, C4E5H0, C4G6H7 and C4E5D5.
 1. Range debris recovered: None
 2. Munitions Related Debris found: None
 3. MEC found: None

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: N/A

PICTURES



Pictures 1&2: Sifting Operations in the Interim Action Range



Picture 3: Munitions Debris (40mm M407 components) found during Sifting Operations in the Interim Action Range Range 47 Sifting operations



Project: Former Ft. Ord/Weston 3rd Party QA
Project No. 28-006
Location: Former Ft. Ord, Monterey, CA
Prepared by: German Peña

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	1		
b. Whites; Surf PI(Pulse Induction)Dual field	1	1		
c. Site Trucks	1	1		
d. Camera	1	1		

ERRG QA Specialist

ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 06/30/11

Work Task (Milestone/Activity):

- Weston Teams performing Mag and Dig operations, in Interim Action Range, Grids B2I8A3 & B2I8G1.
- ERRG QA Specialist Performed QA grid inspections in Future East Garrison Field Variance Work Area, Parcel E11b.7.1.1, Grids, Grids C4G7E8, C4E5H0, C4G6H7, & C4E5D5. Interim Action Range.
- ERRG QA Specialist observed sift plant operations,
- QA Specialist performed QA Seed placement in the Eucalyptus Road Extension project area.

Survey Period: 06/28/11

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance, QA Grid inspections

Observations/Inspections and seed operations performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA placed QA seeds at the Eucalyptus Roadway Extension project area. Locations documented in the QA Seed report.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing Sifting Operations and Eucalyptus Roadway Extension operations.
 1. Munitions Related Debris found: 40MM; M407 components
 2. MEC found: None
- QA observed Weston Teams performing Mag and Dig operations, Interim Action Range, Grids B2I8A3 & B2I8G1.
 1. Safe work practices observed
 2. Lane control observed
 3. Proper and safe dig techniques used
 4. Excavations cleared of anomalies
 5. Range debris recovered in both grids: None
 6. Munitions Related Debris found in both grids: Fragmentation scrap and M73 35MM Sub Caliber components.
 7. MEC found in grid: None
- QA performed QA grid inspections in Future East Garrison, Parcel, E11b.7.1.1, Grids C4G7E8, C4E5H0, C4G6H7 and C4E5D5.
 1. Range debris recovered: None
 2. Munitions Related Debris found: None
 3. MEC found: None

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



MEC QA DAILY REPORT

Date: 8 July 2011

Weather Conditions: Foggy/Sunny Temperature: Low: 56 High: 75

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams performing Sifting Operations at Interim Action range R45, Munitions Response Area & Design Study Range 47 SCA
- Weston Teams performing Mag and Dig operations, RQA Level 2, MRS-1, Parcel E24, Grids B1B8F7 and B1B8F5.

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *N/A*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:
(Assure performing contractor QC is in compliance with the Work Plan)

4. QA AUDITS AND ACTIVITIES:

- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing Sifting Operations, Interim Action Range R45, Munitions Response Area & Design Study Range 47 SCA.
 1. Munitions Related Debris found: 40MM; M407 components
 2. MEC found: One (1) 40MM M406
- QA observed Weston Teams performing Mag and Dig operations, RQA Level 2, MRS-1, Parcel E24, Grids B1B8F7 and B1B8F5.
 1. Safe work practices observed
 2. Lane control observed
 3. Proper and safe dig techniques used
 4. Excavations cleared of anomalies
 5. Range debris recovered in both grids: nails, metal and aluminum
 6. Munitions Related Debris found in both grids: None
 7. MEC found in both grids: None

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*

PICTURES



Picture 1: Employment of EM 61 HH for Target Investigation in Grid B1B8F5





Picture 2: Employment of EM 61 HH for Mag & Dig Operations in Grid B1B8F7

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0

ERRG QA Specialist

ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 07/12/11

Work Task (Milestone/Activity):

- Weston performing Sifting Operations, Interim Action Range R45, Munitions Response Area & Design Study Range 47 SCA.
- Weston Teams performing Mag and Dig operations, in RQA Level 2, MRS-1, Parcel E24, Grids B1B8F7, and B1B8F5.

Survey Period: 07/08/11

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance, QA Grid inspection

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations.
- ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
- ERRG QA Specialist observed Weston Sifting Operations, Interim Action Range R45, Munitions Response Area & Design Study.
 1. Munitions Related Debris found: 40MM; M407 components
 2. MEC found: One (1) 40MM, M406
- ERRG QA Specialist observed Weston Teams performing Mag and Dig operations in RQA Level 2, MRS-1, Parcel E24, Grids B1B8F7, and B1B8F5.
 1. Safe work practices observed
 2. Lane control observed
 3. Proper and safe dig techniques used
 4. Excavations cleared of anomalies
 5. Range debris recovered in both grids: nails, metal and aluminum
 6. Munitions Related Debris found in both grids: None
 7. MEC found in both grids: None

Corrective Action Required: Yes No

Evaluation of LFR Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



MEC QA DAILY REPORT

Date: 21 July 2011

Weather Conditions: Partly Cloudy Temperature: Low: 55 High: 66

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams performing Mag and Dig operations, Seaside RQA Level 2, MRS-15, Parcel E24, Grid B1C9A2.
- Weston Teams conducted Sifting Operations, Interim Action Range (IAR) Range 47 SCA.

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *N/A*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:
(Assure performing contractor QC is in compliance with the Work Plan)

4. QA AUDITS AND ACTIVITIES:

- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing Sifting Operations, Interim Action Range (IAR) R 47 SCA.
 1. Munitions Related Debris found: 40MM components, 3.5" Rocket components and Flare components
 2. MEC found: One (1) 40 mm M407A1
- QA observed Weston Teams performing Mag and Dig operations, Seaside RQA Level 2, MRS-1, Parcel E24, Grid B1C9A2.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: nails, metal and aluminum
 5. Munitions Related Debris found in grid: None
 6. MEC found in grid: None

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*

PICTURES



Picture 1: Sifting Operations IAR R47 SCA



Picture 2: 40 MM, M407A1 found during Sifting Operations



Picture 3: MD found during Sifting Operation



Picture 4: Team conducting Mag and Dig Operations in Grid B1C9A2Seaside RQA Level 2, MRS-15



ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0

A handwritten signature in black ink, reading "Luis E. Fierro".

ERRG QA Specialist

A handwritten signature in black ink, reading "German Pena".

ERRG MEC QA Manager



**Fort Ord Reuse Authority ESCA Remediation Program
Quality Assurance Surveillance Plan**

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 07/26/11

Work Task (Milestone/Activity):

- Weston Teams performing Mag and Dig operations, in Seaside RQA Level 2, MRS-15, Parcel E24, Grid B1C9A2.
- Weston performing Sifting Operations, Interim Action Range (IAR) R 47 SCA.

Survey Period: 07/21/11

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance, QA Grid inspections

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations.
- ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
- ERRG QA Specialist observed Weston Sifting Operations, Interim Action Range (IAR).
 1. Munitions Related Debris found: 40MM components, 3.5 inch Rocket components and Flare components
 2. MEC found: One (1) 40 mm M407A1
- ERRG QA Specialist observed Weston Teams performing Mag and Dig operations Seaside RQA Level 2, MRS-1, Parcel E24, Grid B1C9A2.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: nails, metal and aluminum
 5. Munitions Related Debris found in grid: None
 6. MEC found in grid: None

Corrective Action Required: Yes No

Evaluation of LFR Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



MEC QA DAILY REPORT

Date: 5 August 2011

Weather Conditions: Foggy Temperature: Low: 56 High: 75

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams performing Sifting Operations at Interim Action Ranges MRA Range 44 South SCA and Central Area NCA, Munitions Response Area & Design
- Weston Teams performing Mag and Dig operations, RQA Level 2, MRS-1, Parcel E24.

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *N/A*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:
(Assure performing contractor QC is in compliance with the Work Plan)

4. QA AUDITS AND ACTIVITIES:

- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing Sifting Operations, Interim Action Range R44, Munitions Response Area & Design Study.
 1. Munitions Related Debris found: roc et 3 mm su cal prac M73 fu e trench mortar point detonating M VI and 40mm components
 2. MEC found: roc et 3 mm su cal prac M73 items
- QA observed Weston Teams performing Mag and Dig operations, RQA Level 2, MRS-1, Parcel E24.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in both grids: nails, metal and aluminum
 5. Munitions Related Debris found in both grids: None
 6. MEC found in both grids: None

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*

PICTURES



Picture 1: Sift Operations in IAR 44 South SCA and Central Aea NCA



Picture 2: Mag & Dig Operations in RQA Level 2, MRS-1, Parcel E24



ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0

ERRG QA Specialist

ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 08/10/11

Work Task (Milestone/Activity):

Weston performing Sifting Operations, Interim Action Ranges MRA Range 44, South SCA and Central Area NCA.

Weston Teams performing Mag and Dig operations, in RQA Level 2, MRS-1, Parcel E24

Survey Period: 08/05/11

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the LFR Team's Performance, QA Grid inspections

Observations/Inspections performed by Shane Sorg, ERRG MEC Quality Assurance Professional

Observations:

ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations.

ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.

ERRG QA Specialist observed Weston Sifting Operations, Interim Action Range R44, Munitions Response Area & Design Study.

1. Munitions Related Debris found: rocket, 35mm, subcal, prac, M73; fuze, trench mortar, point detonating, MK VI and 40mm components

2. MEC found: rocket, 35mm, subcal, prac, M73 items

ERRG QA Specialist observed Weston Teams performing Mag and Dig operations in RQA Level 2, MRS-1, Parcel E24

1. Safe work practices observed
2. Proper and safe dig techniques used
3. Excavations cleared of anomalies
4. Range debris recovered in both grids: nails, metal and aluminum
5. Munitions Related Debris found in both grids: None
6. MEC found in both grids: None

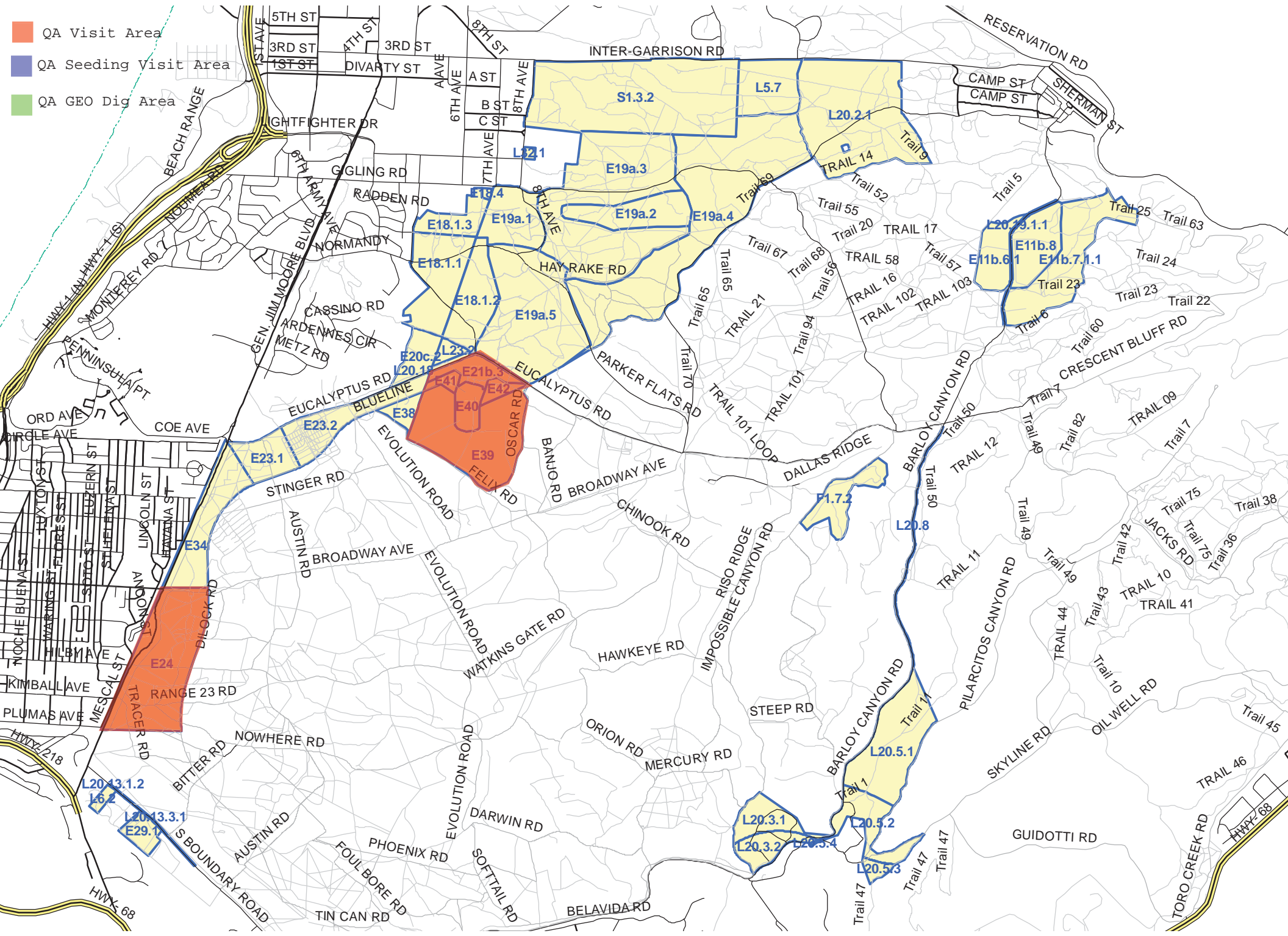
Corrective Action Required: Yes No

Evaluation of LFR Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.

- QA Visit Area
- QA Seeding Visit Area
- QA GEO Dig Area





MEC QA DAILY REPORT

Date: 18 July 2011

Weather Conditions: Partly Cloudy **Temperature: Low:** 55 **High:** 68

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams performing Mag and Dig operations, RQA Level 2, MRS-4, Parcel E23.2A, Grids C2A4C3, C2A4D3 and C2A4C5.
- Weston Teams conducted Sifting Operations, Interim Action Range (IAR), Munitions Response Area & Design Study R 47 SCA Berm.

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *N/A*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:
(Assure performing contractor QC is in compliance with the Work Plan)

4. QA AUDITS AND ACTIVITIES:

- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing Sifting Operations, Interim Action Range (IAR), R47
 1. Munitions Related Debris found: 40MM components and 3.5” Rocket components.
 2. MEC found: Three (3) 40MM, M406
- QA observed Weston Teams performing Mag and Dig operations, RQA Level 2, MRS-4, Parcel #23.2A, Grids C2A4C3, C2A4D3 and C2A4C5.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: nails and wire
 5. Munitions Related Debris found in grid: None
 6. MEC found in grid: None

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*

PICTURES



Picture 1: Anomaly being located



Picture 2: Pin pointing of anomaly



Picture 3: MEC items found during R47 SCA Berm sifting operations



Picture 4: MD found during R47 SCA Berm sifting operations



ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0

ERRG QA Specialist

ERRG MEC QA Manager



**Fort Ord Reuse Authority ESCA Remediation Program
Quality Assurance Surveillance Plan**

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 08/23/11

Work Task (Milestone/Activity):

- Weston Teams performing Mag and Dig operations, RQA Level 2, MRS-4, Parcel E23.2A, Grids C2A4C3, C2A4D3 and C2A4C5.
- Weston Teams conducted Sifting Operations, Interim Action Range (IAR) Range 47 SCA

Survey Period: 07/18/11

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance.

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing Sifting Operations, Interim Action Range (IAR), R47
 1. Munitions Related Debris found: 40MM components and 3.5" Rocket components.
 2. MEC found: Three (3) 40MM, M406
- QA observed Weston Teams performing Mag and Dig operations, RQA Level 2, MRS-4, Parcel E23.2A, Grids C2A4C3, C2A4D3 and C2A4C5.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: nails and wire
 5. Munitions Related Debris found in grid: None
 6. MEC found in grid: None

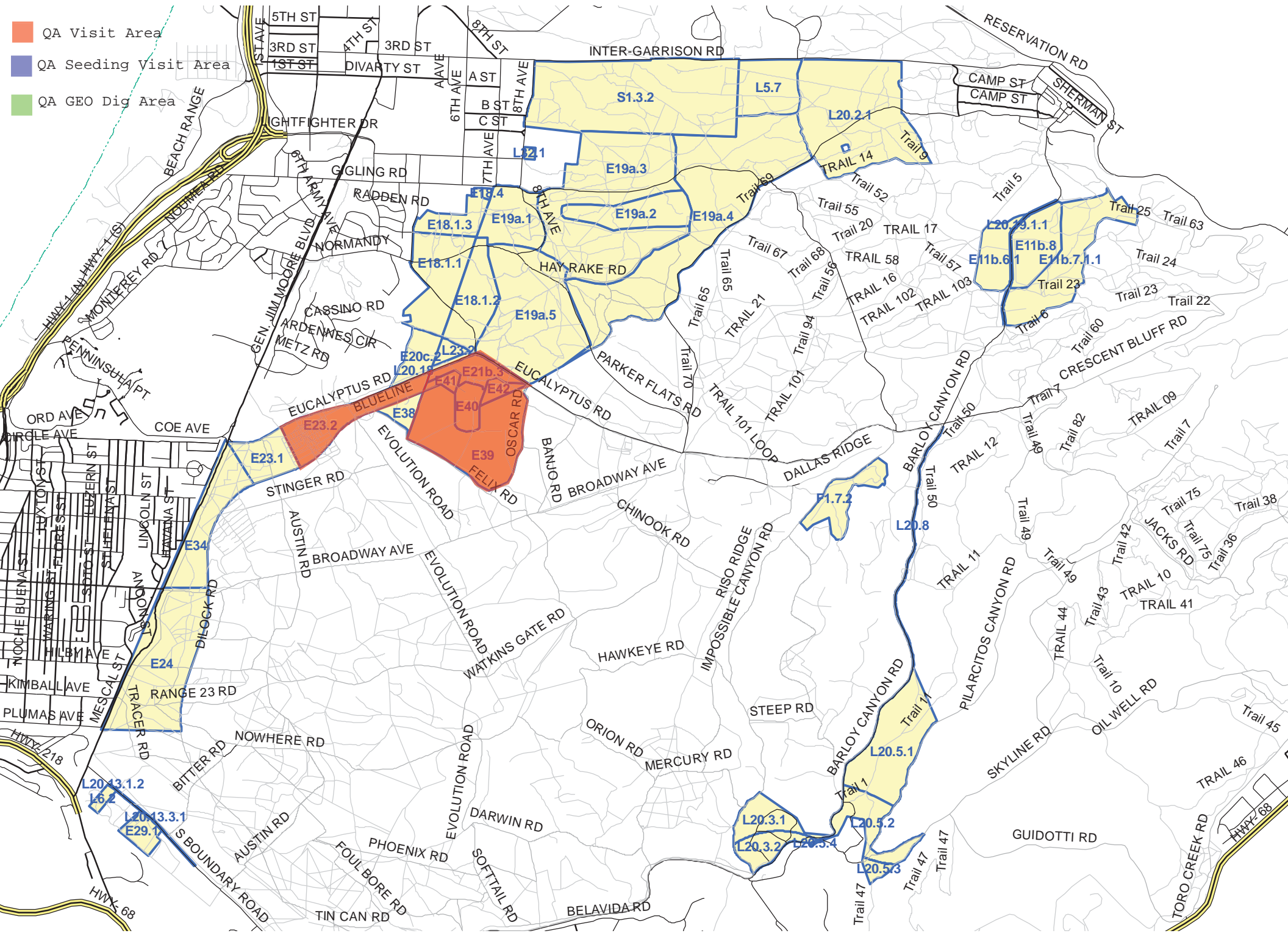
Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.

- QA Visit Area
- QA Seeding Visit Area
- QA GEO Dig Area





MEC QA DAILY REPORT

Date: 08 November 2011

Weather Conditions: Sunny Temperature: Low: 44° High: 66°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams performing reacquisition and anomaly investigation operations, Future East Garrison MRA 42, Parcel E11b.8.
- Weston Teams conducted Sifting Operations, Interim Action Range (IAR) MRA Range 47 SCA, Munitions Response Area & Design Study, Parcel E39.

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *N/A*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:
(Assure performing contractor QC is in compliance with the Work Plan)

- Weston UXOQC Conducted QC activities in Future East Garrison MRA 42, Parcel E11b.8 during anomaly investigation.

4. QA AUDITS AND ACTIVITIES:

- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing anomaly reacquisition and investigation operations, Future East Garrison MRA 42, Parcel E11b.8.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: metal and wire
 5. Munitions Related Debris found in grid: none observed
 6. MEC found in grid: None
 7. QA Seed #3 recovered during QA observation.
- QA observed Weston personnel reacquire geophysical anomalies in Future East Garrison MRA 42, Parcel E11b.8.
- QA observed Weston personnel conducting IAR R 47 SCA sifting operations.
 1. Sifter set up safely prior to operations
 2. Safe distances and exclusion zones observed
 3. Safe heavy equipment operations
 4. QA observed one M407A and one 406 40mm discovered

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: N/A

PICTURES



Picture 1&2: IAR R 47 SCASift Area



Picture 3: IAR MRA Sift Area fines piles



Picture 4&5: Sifter set up in IAR MRA



Picture 6&7: 1 M406 and 1 M407A1 40mm projectiles discovered during sift operations



Picture 8: DGM performed in Future East Garrison MRA 42, Parcel E11b.8



Picture 9: Anomaly investigation in Future East Garrison MRA 42, Parcel E11b.8



ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0

A handwritten signature in cursive script, appearing to read "Francisco M. Cota".

ERRG QA Specialist

A handwritten signature in cursive script, appearing to read "Dan Pen".

ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 11/08/11

Work Task (Milestone/Activity):

- Weston Teams performing reacquisition and anomaly investigation operations, Future East Garrison MRA 42, Parcel E11b.8.
- Weston Teams conducted Sifting Operations, Interim Action Range (IAR), R- 47 SCA.

Survey Period: 11/08/11

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Frank Cota, ERRG MEC Quality Assurance Professional

Observations:

- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing anomaly reacquisition and investigation operations, Future East Garrison MRA 42, Parcel E11b.8.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: metal and wire
 5. Munitions Related Debris found in grid: none observed
 6. MEC found in grid: None
 7. QA Seed #3 recovered during QA observation.
- QA observed Weston personnel reacquire geophysical anomalies in Future East Garrison MRA 42, Parcel E11b.8.
- QA observed Weston personnel conducting IAR R 47 SCA sifting operations.
 1. Sifter set up safely prior to operations
 2. Safe distances and exclusion zones observed
 3. Safe heavy equipment operations
 8. QA observed one M406 and one M407A1 40mm discovered

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



MEC QA DAILY REPORT

Date: 07 December 2011

Weather Conditions: Sunny Temperature: Low: 35° High: 56°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- ESCA RP Team performing reacquisition and anomaly investigation operations, Future East Garrison MRA 42, Parcel E11b.8 Grids C4F5B2, C4F5G3, & C4F5B1
- Weston Teams conducted Sifting Operations, Range 47 SCA, Interim Action Range (IAR)

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: N/A

2. SUBCONTRACTOR ACTIVITIES: N/A

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:
(Assure performing contractor QC is in compliance with the Work Plan)

- Weston UXOQC Conducted QC inspections in Future East Garrison MRA 42, Parcel E11b.8 during anomaly investigation.

4. QA AUDITS AND ACTIVITIES:

- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing anomaly reacquisition and investigation operations, Future East Garrison MRA 42, Parcel E11b.8 Grids C4F5B2, C4F5G3, & C4F5B1.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: aluminum cans, nails, wire & frag
 5. Munitions Related Debris found in grid: none observed
 6. MEC found in grid: None
- QA observed Weston personnel conducting sifting operations Range 47 SCA, IAR.
 1. Sifter set up safely prior to operations
 2. Safe distances and exclusion zones observed
 3. Safe heavy equipment operations
 4. MEC found: None

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: N/A

PICTURES



Picture 1: Anomaly locating utilizing the EM 61



Picture 2: Anomaly excavation



Picture 3: UXOQC performing QC anomaly inspections

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0

Luis E. Fierro

 ERRG QA Specialist

Frank Cota

 ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 12/08/11

Work Task (Milestone/Activity):

- ESCA RP Team performing reacquisition and anomaly investigation operations, Future East Garrison MRA 42, Parcel E11b.8 Grids C4F5B2, C4F5G3, & C4F5B1
- Weston Teams conducted Sifting Operations, Range 47 SCA, Interim Action Range (IAR)

Survey Period: 12/07/11

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing anomaly reacquisition and investigation operations, Future East Garrison MRA 42, Parcel E11b.8 Grids C4F5B2, C4F5G3, & C4F5B1.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: aluminum cans, nails, wire & frag
 5. Munitions Related Debris found in grid: none observed
 6. MEC found in grid: None
- QA observed Weston personnel conducting sifting operations Range 47 SCA, IAR.
 1. Sifter set up safely prior to operations
 2. Safe distances and exclusion zones observed
 3. Safe heavy equipment operations
 7. MEC found: None

Corrective Action Required: Yes No Evaluation
of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



MEC QA DAILY REPORT

Date: 11 January 2012

Weather Conditions: Sunny **Temperature:** **Low:** 42° **High:** 60°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- ESCA RP Team performing anomaly investigation operations, Range 44 North SCA, IAR
- ESCA RP Team conducted Sifting Operations, Range 47 SCA, IAR
- ERRG QA Specialists on site to conduct QA blind seed emplacement in IAR 47 SCA.

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: N/A

2. SUBCONTRACTOR ACTIVITIES: N/A

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:
(Assure performing contractor QC is in compliance with the Work Plan)

- Weston UXOQC Conducted QC inspections and QC seed operations at range 47 IAR.

4. QA AUDITS AND ACTIVITIES:

- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
 1. QA observed Weston Teams performing anomaly investigation operations, Range 44 North SCA, Interim Action Range (IAR)
 2. Safe work practices observed
 3. Proper and safe dig techniques used
 4. Excavations cleared of anomalies
 5. Range debris recovered in grid: Wire, cans
 6. Munitions Related Debris found in grid: Expended M73 Sub-Caliber Rockets, expended smoke canisters
 7. MEC found in grid: none observed by QA
- QA observed Weston personnel conducting sifting operations Range 47, IAR.
 1. Sifter set up safely prior to operations
 2. Safe distances and exclusion zones observed
 3. Safe heavy equipment operations
 4. MEC found: 40 mm E M406

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: N/A

PICTURES



Picture 1: Sift operations at Range 47 IAR



Picture 2: Anomaly reacquired at Range 44 North SCA IAR



Picture 3: Pinpointing an anomaly utilizing a Shconstedt



Picture 4: Expended smoke canisters and other munitions scrap

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	1	0	0
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0

Francis M. Cota

 ERRG QA Specialist

Don Pen

 ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 01/16/12

Work Task (Milestone/Activity):

- ESCA RP Team performing anomaly investigation operations, Range 44 North SCA, Interim Action Range
- ESCA RP Team conducted Sifting Operations, Range 47 SCA, Interim Action Range (IAR)
- ERRG QA Specialists on site to conduct QA blind seed emplacement.

Survey Period: 01/11/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the LFR Team's Performance

Observations/Inspections performed by Frank Cota and Michael Davis, ERRG MEC Quality Assurance Professionals

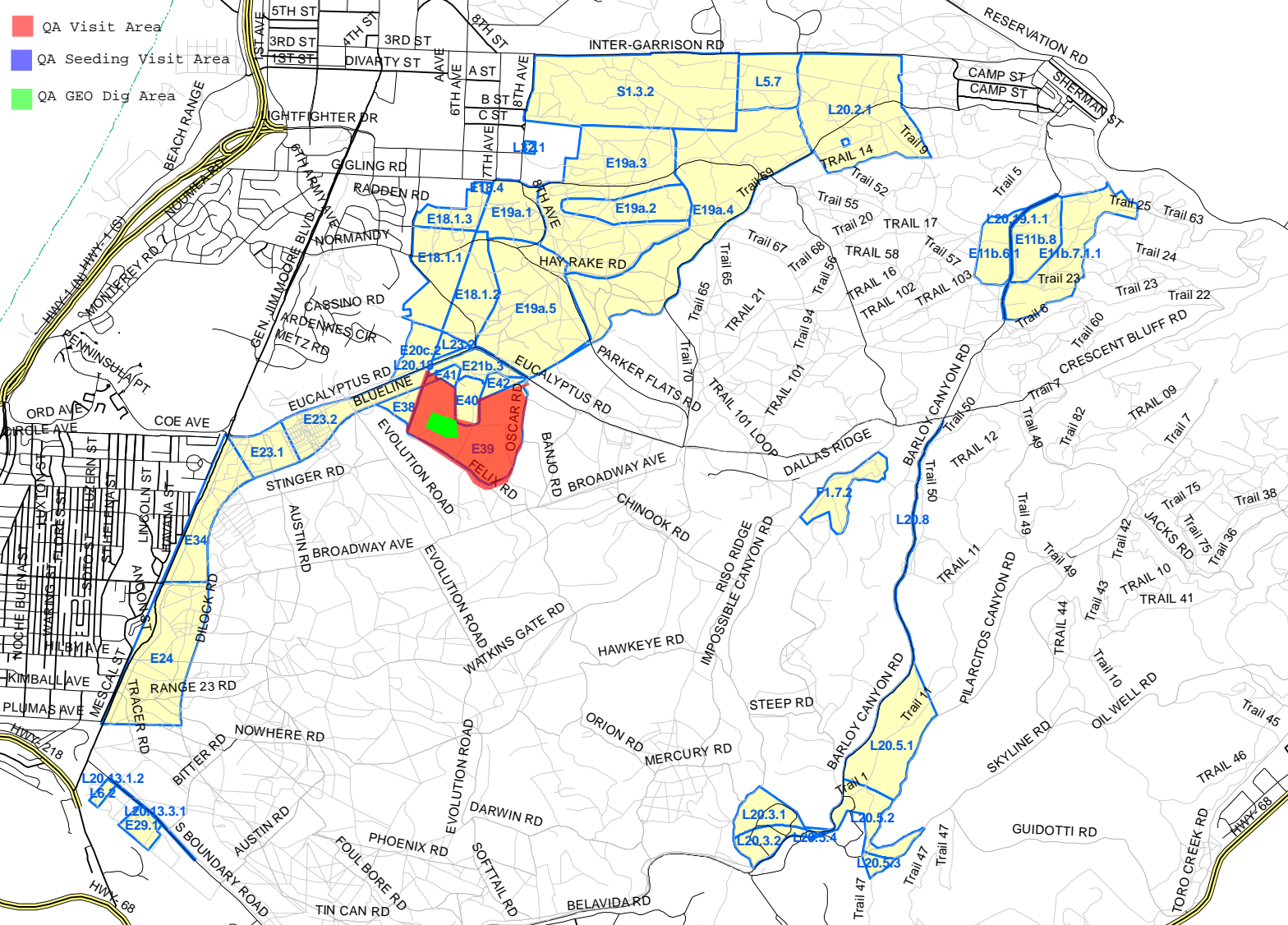
Observations:

- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
 1. QA observed Weston Teams performing anomaly investigation operations, Range 44 North SCA, ~~Action~~ Interim Range (IAR)
 2. Safe work practices observed
 3. Proper and safe dig techniques used
 4. Excavations cleared of anomalies
 5. Range debris recovered in grid: Wire, cans
 6. Munitions Related Debris found in grid: Expended M73 Sub-Caliber Rockets, expended smoke canisters
 7. MEC found in grid: none observed by QA
- QA observed Weston personnel conducting sifting operations Range 47, IAR.
 1. Sifter set up safely prior to operations
 2. Safe distances and exclusion zones observed
 3. Safe heavy equipment operations
 8. MEC found: None

Corrective Action Required: Yes No Evaluation of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.





MEC QA DAILY REPORT

Date: 25 January 2012

Weather Conditions: Sunny Temperature: Low: 47° High: 61°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- ESCA RP Team performing anomaly investigation operations, Range 44 North SCA, Interim Action Range, Grids B2J8H4 and B2J8H6
- ESCA RP Team conducted Sifting Operations, Range 47 SCA, Interim Action Range (IAR)

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: N/A

2. SUBCONTRACTOR ACTIVITIES: N/A

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:
(Assure performing contractor QC is in compliance with the Work Plan)

- Weston UXOQC Conducted QC inspections and QC seed operations at range 47 SCA IAR.

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting conducted, sun screen usage and water intake was emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
 1. QA observed Weston Teams performing anomaly investigation operations, Range 44, IAR, Grids B2J8H4 and B2J8H6
 2. Safe work practices observed
 3. Proper and safe dig techniques used
 4. Excavations cleared of anomalies
 5. Range debris recovered in grid: Wire, scrap metal
 6. Munitions Related Debris found in grid: None
 7. MEC found in grid: None
- QA observed Weston personnel conducting sifting operations Range 47, IAR.
 1. Sifter set up safely prior to operations
 2. Safe distances and exclusion zones observed
 3. Safe heavy equipment operations
 4. MEC found: None

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: N/A

PICTURES



Picture 1&2: Anomaly locating with the EM 61 and pinpointing utilizing Schonstedt IAR R 44 North SCA



Picture 3: Anomaly excavation IAR R44 North SCA



Picture 4: M73 35-MM Sub-Caliber rockets



Picture 5: Sifter Operations in IAR 47 SCA



ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	1	0	0
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0

ERRG QA Specialist

ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 01/27/12

Work Task (Milestone/Activity):

- ESCA RP Team performing anomaly investigation operations, Range 44 North SCA, Interim Action Range, Grids B2J8H4 and B2J8H6
- ESCA RP Team conducted Sifting Operations, Range 47 SCA, Interim Action Range (IAR)

Survey Period: 01/25/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA observed morning safety meeting conducted, sun screen usage and water intake was emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
 1. QA observed Weston Teams performing anomaly investigation operations, Range 44 North SCA, IAR, Grids B2J8H4 and B2J8H6
 2. Safe work practices observed
 3. Proper and safe dig techniques used
 4. Excavations cleared of anomalies
 5. Range debris recovered in grid: Wire, scrap metal
 6. Munitions Related Debris found in grid: None
 7. MEC found in grid: None
- QA observed Weston personnel conducting sifting operations Range 47 SCA, IAR.
 1. Sifter set up safely prior to operations
 2. Safe distances and exclusion zones observed
 3. Safe heavy equipment operations
 8. MEC found: None

Corrective Action Required: Yes No Evaluation of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



MEC QA DAILY REPORT

Date: 08 February 2012

Weather Conditions: Sunny **Temperature:** **Low:** 45° **High:** 62°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- ESCA RP Team performing anomaly investigation operations, Range 44 North SCA, Interim Action Range (IAR), Grids B2J8J5 and B2A8C5
- ESCA RP Team conducted Sifting Operations, Range 47 SCA, IAR

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: N/A

2. SUBCONTRACTOR ACTIVITIES: N/A

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:

(Assure performing contractor QC is in compliance with the Work Plan)

- Weston UXOQC Conducted QC inspections of teams in Range 44 North SCA IAR.

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting conducted, personal protective equipment (PPE) usage and proper anomaly dig technique was emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
 1. QA observed Weston Teams performing anomaly investigation operations, Range 44, IAR, Grids B2J8J5 and B2A8C5
 2. Safe work practices observed
 3. Proper and safe dig techniques used
 4. Excavations cleared of anomalies
 5. Range debris recovered in grid: Wire, scrap metal
 6. Munitions Related Debris found in grid: Expended M73 35-MM Sub-Caliber Rockets and M72 LAW rocket components
 7. MEC found in grid: M73 35-MM Sub-Caliber rockets
- QA observed Weston personnel conducting sifting operations Range 47, IAR.
 1. Sifter set up safely prior to operations
 2. Safe distances and exclusion zones observed
 3. Safe heavy equipment operations
 4. MEC found: None

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by

FORA/Client Personnel: N/A

PICTURES



Picture 1: Shconstedt function check prior to operations



Picture 2: Range 47 SCA Sift operations viewed from safe distance



Picture 3: Anomaly locating utilizing the EM61



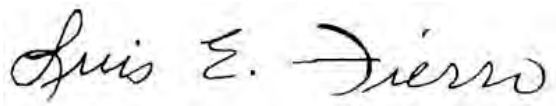
Picture 5: Expended M72 LAW rockets



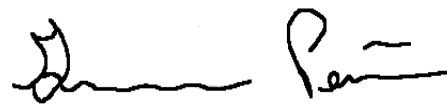
Picture 5: Recovered M73 sub-caliber rockets

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	1	0	0
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0



ERRG QA Specialist



ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 02/09/12

Work Task (Milestone/Activity):

- ESCA RP Team performing anomaly investigation operations, Range 44, North SCA IAR), Grids B2J8J5 and B2A8C5
- ESCA RP Team conducted Sifting Operations, Range 47 SCA, IAR

Survey Period: 02/08/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

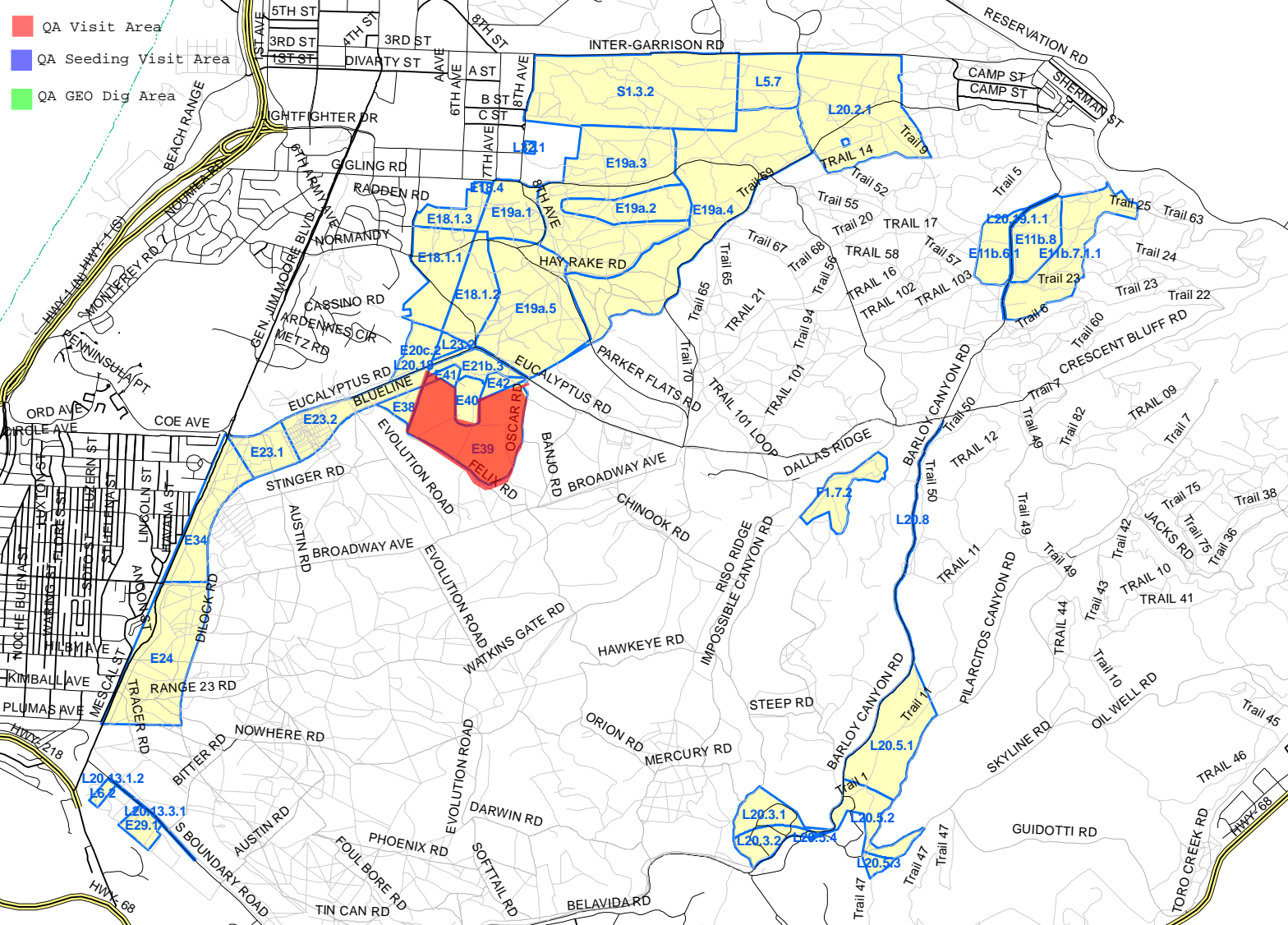
Observations:

- QA observed morning safety meeting conducted, personal protective equipment (PPE) usage and proper anomaly dig technique was emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
 1. QA observed Weston Teams performing anomaly investigation operations, Range 44, North SCA IAR, Grids ~~B2J8J5~~ and B2A8C5
 2. Safe work practices observed
 3. Proper and safe dig techniques used
 4. Excavations cleared of anomalies
 5. Range debris recovered in grid: Wire, scrap metal
 6. Munitions Related Debris found in grid: Expended M73 35-MM Sub-Caliber Rockets components
 7. MEC found in grid: M73 35-MM Sub-Caliber rockets
- QA observed Weston personnel conducting sifting operations Range 47 SCA, IAR.
 1. Sifter set up safely prior to operations
 2. Safe distances and exclusion zones observed
 3. Safe heavy equipment operations
 8. MEC found: None

Corrective Action Required: Yes No Evaluation
of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.





MEC QA DAILY REPORT

Date: 24 February 2012

Weather Conditions: Sunny **Temperature:** **Low:** 43° **High:** 64°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams performing reacquisition and anomaly investigation operations, IAR 44 North SCA, Grids B2J8I4 and B2A8A6.
- Weston has completed Sifting Operations.

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *N/A*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:

4. QA AUDITS AND ACTIVITIES:

- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing anomaly reacquisition and investigation operations using an EM 61 and Schonstedt, IAR 44, Grids B2J8I4 and B2A8A6.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: None
 5. Munitions Related Debris found in grid: several LAW rockets components and M73 Sub Cal Rockets
 6. MEC found in grid: (25) M73 Sub Cal Rockets
 7. QA Seeds: None
- Weston Sifting Operations
 1. Sifting operations complete.

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*

PICTURES



Pics 1&2 anomaly investigations using an EM 61 and a Schonstedt



Pic 3: MD recovered in Grids



Pic 4: MEC Item M73 Sub Cal Rockets



Pic 5: Consolidated MEC Items



ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	1	0	0
b. Whites; Surf PI(Pulse Induction)Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0

Quis E. Fierro

ERRG QA Specialist

German Peña

ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 2/27/12

Work Task (Milestone/Activity):

- Weston Teams performing reacquisition and anomaly investigation operations, IAR 44 North SCA, Grids B2J8I4 and B2A8A6.
- Weston has completed Sifting Operations.

Survey Period: 2/24/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

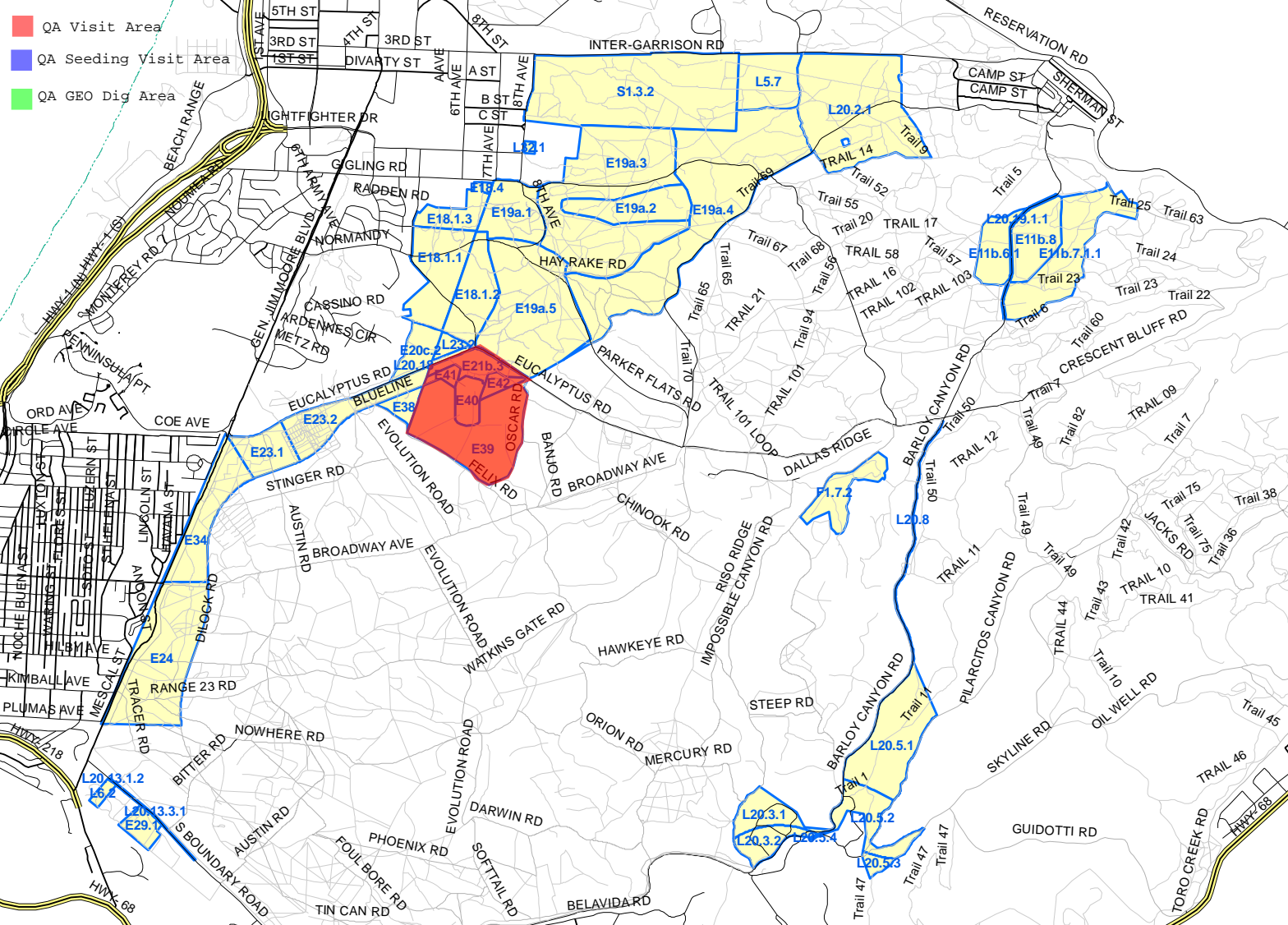
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing anomaly reacquisition and investigation operations using an EM 61 and Schonstedt, IAR 44 North SCA, Grids B2J8I4 and B2A8A6.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: None
 5. Munitions Related Debris found in grid: several M73 Sub Cal Rockets
 6. MEC found in grid: (25) M73 Sub Cal Rockets
 7. QA Seeds: None
- Weston Sifting Operations.
 1. Sifting Operations Completed

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.





MEC QA DAILY REPORT

Date: 8 March 2012

Weather Conditions: Cloudy Temperature: Low: 42° High: 67°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams conducted Mag and Dig operations in IAR 47 SCA, Grids C2A6B9 7 B2J6H0.
- Weston QC conducted inspections at FEG parcel E11b.8, Grids, C4E5C1, C4E5D1, C4E4C0, C4E4C9, C4E4D9, C4E4C8, C4E4D8, C4E4E9, C4E4F9, C4E4G9, & C4E4H9.

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *N/A*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:

4. QA AUDITS AND ACTIVITIES:

- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing anomaly reacquisition and investigation operations using an EM 61 and Schonstedt IAR 47 SCA Grids C2A6B9 and B2J6H0.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: None
 5. Munitions Related Debris found in grid: 40 MM, 3.5 inch rocket components and (1) partial M29, 3.5 inch rocket.
 6. MEC found in grid: None
 7. QA Seeds: None
- QA observed Weston QC conduct inspections in FEG parcel E11b.8, Grids, C4E5C1, C4E5D1, C4E4C0, C4E4C9, C4E4D9, C4E4C8, C4E4D8, C4E4E9, C4E4F9, C4E4G9, & C4E4H9.
 1. Results; Negative Finds
 2. No discrepancies noted.

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*

PICTURES



Pics 1&2 anomaly investigations using an EM 61



Pic 3: MD recovered in Grids



Pic 4: MD, partial M29, 3.5 inch rocket



ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0

Luis E. Fierro

ERRG QA Specialist

German Peña

ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 3/9/12

Work Task (Milestone/Activity):

- Weston Teams performing reacquisition and anomaly investigation operations, IAR 47 SCA, Grids B2J8I4 and B2A8A6.
- Weston QC conducted inspections at FEG parcel E11b.8, Grids, C4E5C1, C4E5D1, C4E4C0, C4E4C9, C4E4D9, C4E4C8, C4E4D8, C4E4E9, C4E4F9, C4E4G9, & C4E4H9.

Survey Period: 3/8/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the

ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing anomaly reacquisition and investigation operations using an EM 61 and Schonstedt, IAR 47 SCA Grids C2A6B9 and B2J6H0.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: None
 5. Munitions Related Debris found in grid: 40 MM, 3.5 inch rocket components and (1) partial M29, 3.5 inch rocket
 6. MEC found in grid: None
 7. QA Seeds: None
- QA Observed Weston QC conduct inspections in FEG parcel E11b.8, Grids, C4E5C1, C4E5D1, C4E4C0, C4E4C9, C4E4D9, C4E4C8, C4E4D8, C4E4E9, C4E4F9, C4E4G9, & C4E4H9.
 1. Results; Negative finds
 2. No discrepancies noted

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



MEC QA DAILY REPORT

Date: 20 March 2012

Weather Conditions: Cloudy Temperature: Low: 46° High: 62°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- ESCA RP Team performing anomaly investigation operations, Range 47 SCA, Interim Action Range, Grids B2J7J4 and B2J7J3
- ERRG QA seeding, Seaside 1 RQA Level 2.

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: N/A

2. SUBCONTRACTOR ACTIVITIES: N/A

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:
(Assure performing contractor QC is in compliance with the Work Plan)

- Weston UXOQC conducted QC observations and seed operations at Seaside 1 RQA Level 2.

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting conducted, digging practices and PPE usage were emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
 1. QA observed Weston Teams performing anomaly investigation operations, Range 47, Interim Action Range, Grids B2J7J4 and B2J7J3
 2. Safe work practices observed
 3. Proper and safe dig techniques used
 4. Excavations cleared of anomalies
 5. Range debris recovered in grid: Wire, scrap metal
 6. Munitions Related Debris found in grid: Several 40 MM grenade and 81 MM Mortar components
 7. MEC found during QA observations: M49 Mortar, 60 MM
- ERRG QA conducted Blind seeding emplacement in Seaside 1 RQA Level 2.
 1. Results recorded in the QA seed report

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: N/A

PICTURES



Picture 1: Anomaly locating with the EM 61 IAR Rg 47



Picture 2: Anomaly pinpointing using a Schonstedt IAR Rg 47



Picture 3: M49 Mortar, 60 MM IAR Rg 47



Picture 4: Munitions Debris located, 40mm grenade and 81mm mortar components IAR Rg 47



ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	1	0	0
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0

ERRG QA Specialist

ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 03/21/12

Work Task (Milestone/Activity):

- ESCA RP Team performing anomaly investigation operations, Range 47 SCA, Interim Action Range, Grids B2J7J4 and B2J7J3
- ERRG QA seeding, Seaside 1 RQA Level 2.

Survey Period: 03/20/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

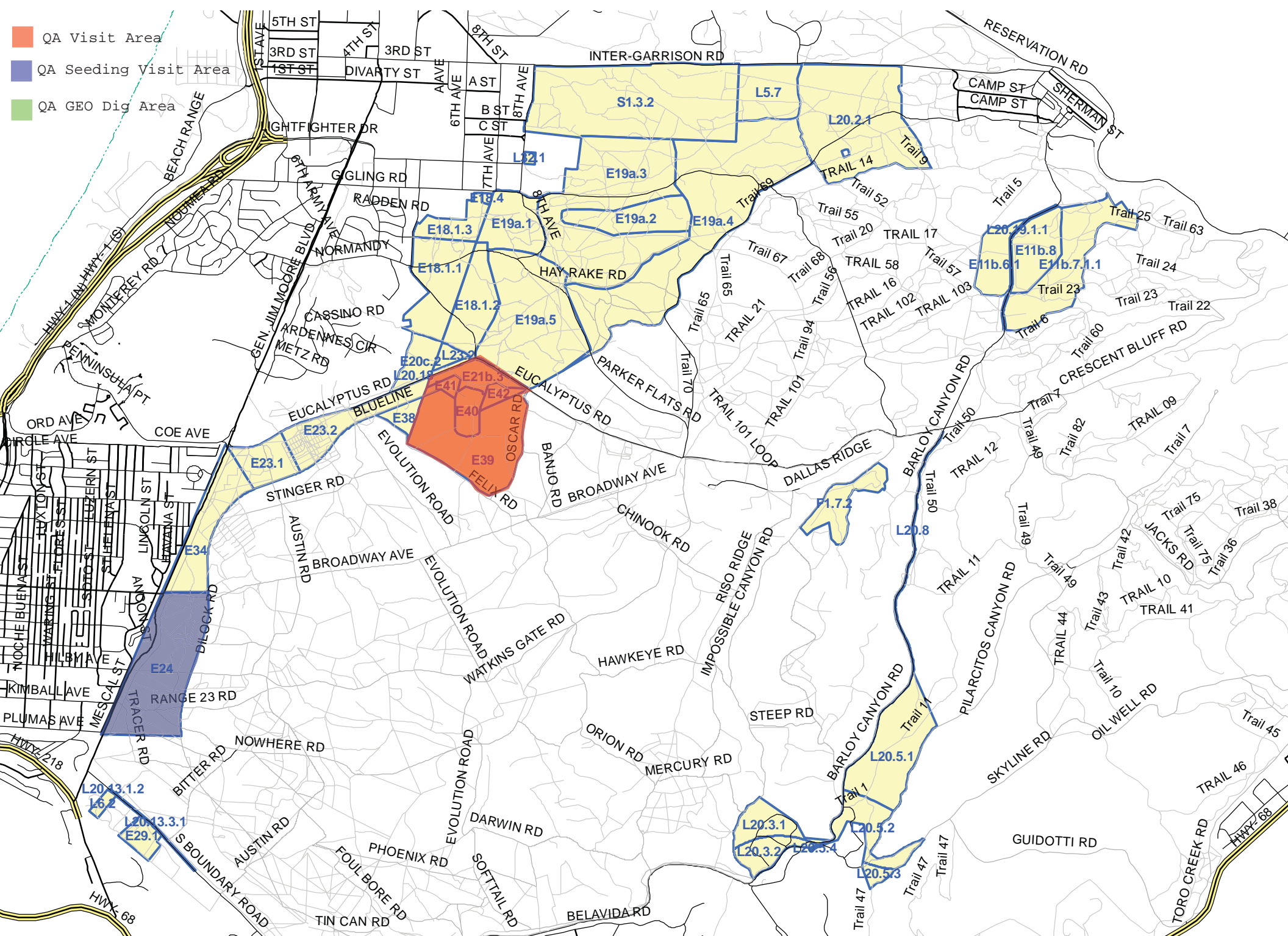
- QA observed morning safety meeting conducted, digging practices and PPE usage were emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
 1. QA observed Weston Teams performing anomaly investigation operations, Range 47 SCA, Interim Action Range, Grids B2J7J4 and B2J7J3
 2. Safe work practices observed
 3. Proper and safe dig techniques used
 4. Excavations cleared of anomalies
 5. Range debris recovered in grid: Wire, scrap metal
 6. Munitions Related Debris found in grid: Several 40 MM grenade and 81 MM Mortar components
 7. MEC found during QA observations: M49 Mortar, 60 MM
- ERRG QA conducted Blind seeding emplacement in Seaside 1 RQA Level 2.
 8. Results recorded in the QA seed report

Corrective Action Required: Yes No Evaluation
of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.

- QA Visit Area
- QA Seeding Visit Area
- QA GEO Dig Area





MEC QA DAILY REPORT

Date: 05 April 2012 **Weather Conditions:** Sunny and windy **Temperature: Low:** 42° **High:** 55°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- ESCA RP Team performing anomaly investigation operations, Range 47 SCA, Interim Action Range, Grids B2J7I3
- ERRG QA grid Inspections in Future East Garrison parcel E11b.8, Grids C4F6H3, C4F5I9, C4G5A7, C4G5B0, C4G5E8 and C4G6F1
- ERRG QA seeding, Future East Garrison Parcel E11b7.1.1.

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: N/A

2. SUBCONTRACTOR ACTIVITIES: N/A

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:

(Assure performing contractor QC is in compliance with the Work Plan)

- Weston UXOQC conducted QC observations of teams performing anomaly investigation operations, Range 47, Interim Action Range.

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting conducted, digging practices, sun screen usage and PPE usage were emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
 1. QA observed Weston Teams performing anomaly investigation operations, Range 47 SCA, Interim Action Range, Grids B2J7I3
 2. Safe work practices observed
 3. Proper and safe dig techniques used
 4. Excavations cleared of anomalies
 5. Range debris recovered in grid: Wire, scrap metal
 6. Munitions Related Debris found in grid: One (1) expended 105MM, M314 projectile
 7. MEC found during QA observations: One (1) 40MM M406, one (1) 14.5 M181 and one (1) 22 MM M744
- Performed QA grid Inspections in Future East Garrison parcel E11b.8, Grids C4F6H3, C4F5I9, C4G5A7, C4G5B0, C4G5E8 and C4G6F1.
 1. Performed the inspection utilizing a Schonstedt GA-52cX
 2. MEC negative find.
- ERRG QA conducted Blind seeding emplacement in Future East Garrison Parcel E11b7.1.1.
 1. Results recorded in the QA seed report

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: N/A

PICTURES



Picture 1: Instrument function check prior to operations



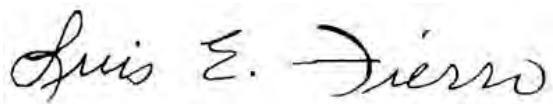
Picture 2: Anomaly pinpointing



Picture 3: Expended 105MM, M314 projectile

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	1	0	0
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0



ERRG QA Specialist



ERRG MEC QA Manager



**Fort Ord Reuse Authority ESCA Remediation Program
Quality Assurance Surveillance Plan**

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 04/06/12

Work Task (Milestone/Activity):

- ESCA RP Team performing anomaly investigation operations, Range 47 SCA, Interim Action Range, Grids B2J7I3
- ERRG QA grid Inspections in Future East Garrison parcel E11b.8, Grids C4F6H3, C4F5I9, C4G5A7, C4G5B0, C4G5E8 and C4G6F1
- ERRG QA seeding, Future East Garrison Parcel E11b7.1.1.

Survey Period: 04/05/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA observed morning safety meeting conducted, digging practices, sun screen usage and PPE usage were emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
 1. QA observed Weston Teams performing anomaly investigation operations, Range 47, Interim Action Range, Grids B2J7I3
 2. Safe work practices observed
 3. Proper and safe dig techniques used
 4. Excavations cleared of anomalies
 5. Range debris recovered in grid: Wire, scrap metal
 6. Munitions Related Debris found in grid: One (1) expended 105MM, M314 projectile
 7. MEC found during QA observations: One (1) 40MM M406, one (1) 14.5 M181 and one (1) 22 MM M744
- Performed QA grid Inspections in Future East Garrison parcel E11b.8, Grids C4F6H3, C4F5I9, C4G5A7, C4G5B0, C4G5E8 and C4G6F1.
 1. Performed the inspection utilizing a Schonstedt GA-52cX
 2. MEC negative find.
- ERRG QA conducted Blind seeding emplacement in Future East Garrison Parcel E11b7.1.1.
 1. Results recorded in the QA seed report

Corrective Action Required: Yes No Evaluation
of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



MEC QA DAILY REPORT

Date: 8 May 2012

Weather Conditions: Sunny Temperature: Low: 50° High: 67°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams conducted anomaly investigation operations in IAR Range 44 North SCA, Grids C2A8G6, C2A8D8, C2A8D6 and C2A8B6.

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *N/A*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: *N/A*

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting conducted, slips and falls, sun screen usage and water intake were emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing anomaly investigation operations in IAR Range 44, Grids C2A8G6, C2A8D8, C2A8D6 and C2A8B6.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: None
 5. Munitions Related Debris found in grid: several expended M72 66 MM components.
 6. MEC found in grid: (20) M73, 35 MM Sub Cal
 7. QA Seeds: None
- QA conducted QA Seeding Action in FEG, Parcel E11b.7.1.1: See QA Blind Seeding Report

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*

PICTURES



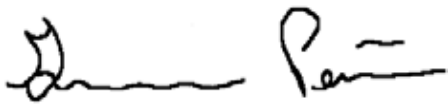
Pic 1: Reacquiring anomalies



Pic 2: Mag and Dig Procedures

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0



ERRG MEC QA Manager



**Fort Ord Reuse Authority ESCA Remediation Program
Quality Assurance Surveillance Plan**

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 5/9/12

Work Task (Milestone/Activity):

- Weston Teams performing anomaly investigation operations, IAR Range 44 North SCA, Grids C2A8G6, C2A8D8, C2A8D6 and C2A8B6.

Survey Period: 5/8/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

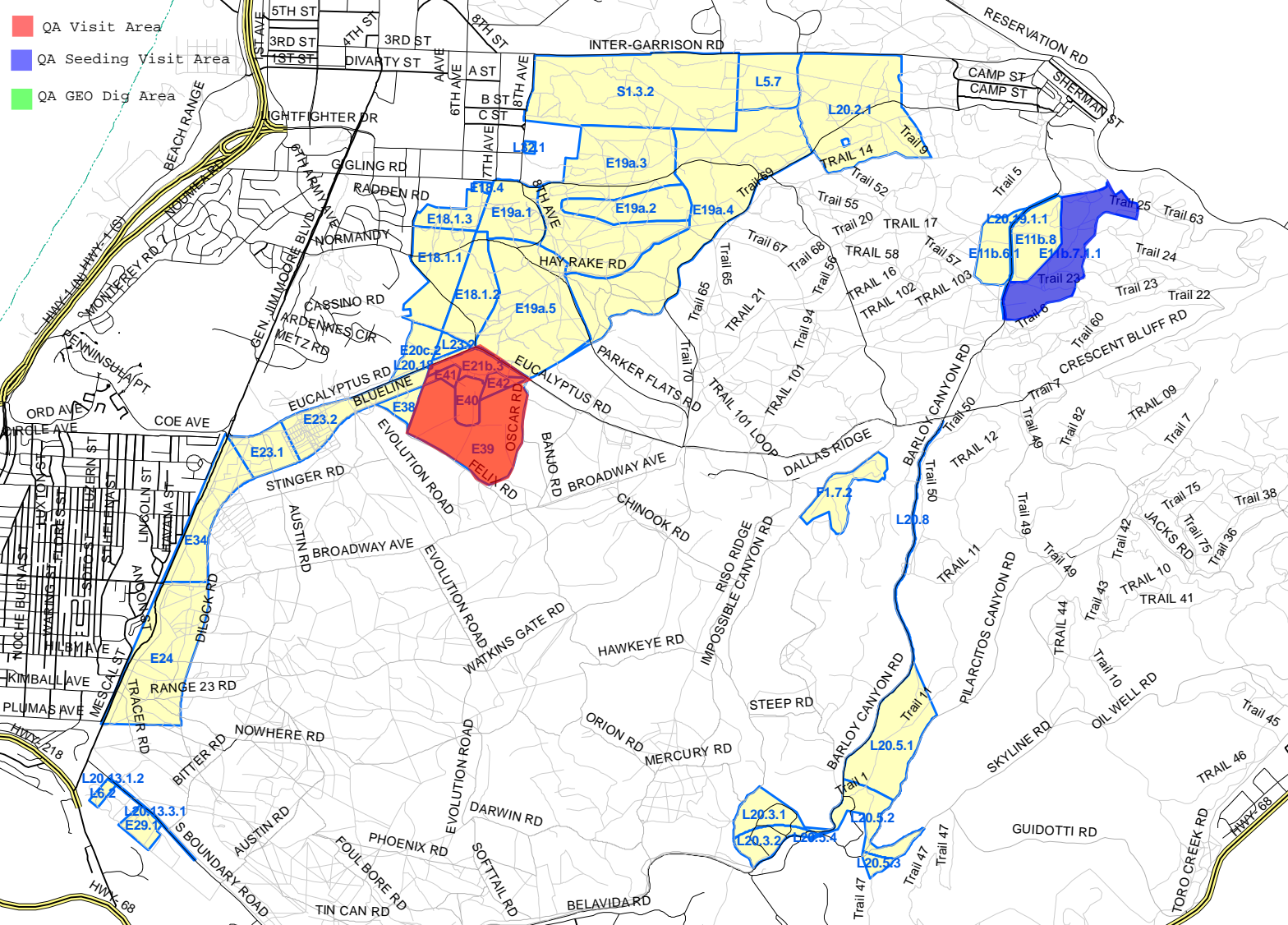
- QA observed morning safety meeting conducted, slips and falls, sun screen usage and water intake were emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing anomaly investigation operations in IAR Range 44, Grids C2A8G6, C2A8D8, C2A8D6 and C2A8B6.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: None
 5. Munitions Related Debris found in grid: several expended M72 66 MM components.
 6. MEC found in grid: (20) M73, 35 MM Sub Cal
 7. QA Seeds: None
- QA conducted QA Seeding Action in FEG, Parcel E11b.7.1.1: See QA Blind Seeding Report

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.





MEC QA DAILY REPORT

Date: 30 May 2012

Weather Conditions: Sunny Temperature: Low: 50° High: 67°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams conducted anomaly investigation operations in IAR Range 44 North SCA, Grids C2A8B7, & C2A8C6.

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *N/A*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: *N/A*

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting conducted, slips and falls and dig practices discussed.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing anomaly investigation operations in IAR Range 44 North SCA Grids C2A8B7, & C2A8C6.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Wire
 5. Munitions Related Debris found in grid: Several expended M72 Sub Cal Rockets and expended M73 LAW components.
 6. MEC found in grid: M73 Sub Cal Rockets
 7. QA Seeds: None

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*

PICTURES



Pic 1: UXO Techs reacquiring anomalies



Pic 2: Mag and Dig Pinpointing Procedures



Pic 3: Munitions debris recovered

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0



ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 6/1/12

Work Task (Milestone/Activity):

- Weston Teams conducted anomaly investigation operations in IAR Range 44 North SCA, Grids , C2A8B7, & C2A8C6.

Survey Period: 5/30/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA observed morning safety meeting conducted, slips and falls and dig practices discussed.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing anomaly investigation operations in IAR Range 44, Grids B2J8H3, C2A8B7, & C2A8C6.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Wire
 5. Munitions Related Debris found in grid: Several expended M72 Sub Cal Rockets and expended M73 LAW components.
 6. MEC found in grid: M73 Sub Cal Rockets
- QA Seeds: None

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



MEC QA DAILY REPORT

Date: 12 June 2012

Weather Conditions: Sunny Temperature: Low: 53° High: 67°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams conducted operations in:
 - 1) Mag and dig in Future East Garrison (FEG), parcel E11b.7.1.1 Grids C4D4C7 & C4D4B7
 - 2) Anomaly investigation in IAR Range 44 North SCA, Grids C2A8C6, C2A8B6, B2J8I4, & B2J8I6

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: N/A

2. SUBCONTRACTOR ACTIVITIES: N/A

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: N/A

- UXOQC conducted QC inspections of UXO teams
- UXOQC assisted ERRG QA in seed operations

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting conducted, slips and falls and proper use of PPE.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing anomaly investigation operations FEG, parcel E11b.7.1.1 Grids C4D4C7 & C4D4B7
- QA observed Weston Teams performing anomaly investigation operations in IAR Range 44 North SCA Grids:, C2A8C6, C2A8B6, B2J8I4, & B2J8I6.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Wire and aluminum scrap
 5. Munitions Related Debris found in grid: Several expended M72 Sub Cal Rockets and expended M73 LAW components.
 6. MEC found in grid: 66 MM M72 LAW Rocket, 35 MM M73 Practice Sub Cal Rockets
 7. QA Seeds: None
- ERRG QA conducted blind seed emplacement in FEG, parcel E11b.7.1.1, see seed report.

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: N/A

PICTURES



Pic 1: Reacquiring anomalies




Pic 2: Mag and Dig Pinpointing Procedures



Pic 3: Munitions debris recovered

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI(Pulse Induction)Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0



ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 6/13/12

Work Task (Milestone/Activity):

- Weston Teams conducted operations in:
 - 1) Mag and dig in Future East Garrison (FEG), parcel E11b.7.1.1 Grids C4D4C7 & C4D4B7
 - 2) Anomaly investigation in IAR Range 44 North SCA, Grids C2A8C6, C2A8B6, B2J8I4, & B2J8I6

Survey Period: 6/12/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

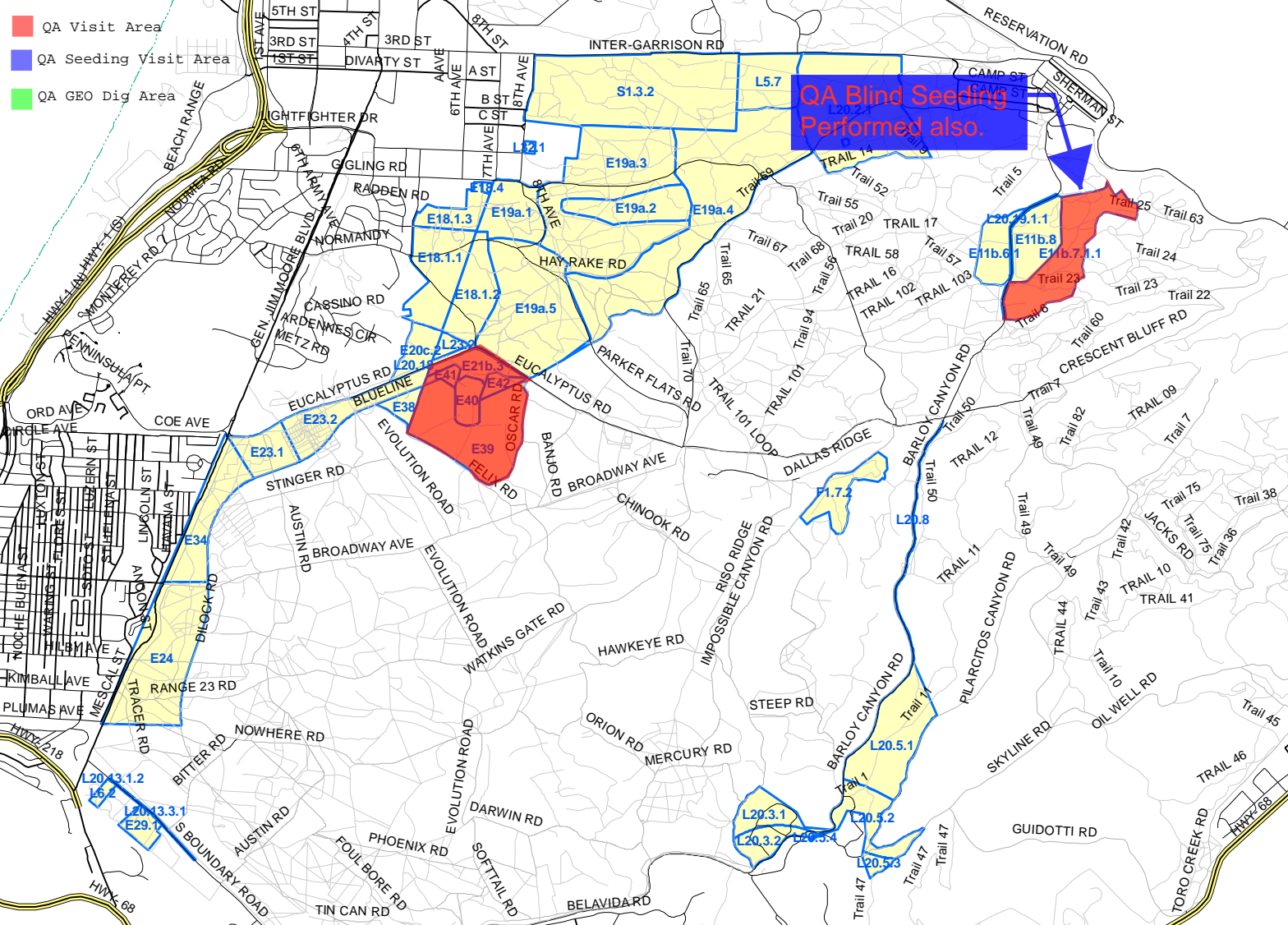
- QA observed morning safety meeting conducted, slips and falls and proper use of PPE.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing anomaly investigation operations FEG, parcel E11b.7.1.1 Grids C4D4C7 & C4D4B7
- QA observed Weston Teams performing anomaly investigation operations in IAR Range 44, Grids C2A8C6, C2A8B6, B2J8I4, & B2J8I6.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Wire and aluminum scrap
 5. Munitions Related Debris found in grid: Several expended M72 Sub Cal Rockets and expended M73 LAW components.
 6. MEC found in grid: 66 MM M72 LAW Rocket, 35 MM M73 Practice Sub Cal Rockets
 7. QA Seeds: None
- ERRG QA conducted blind seed emplacement in FEG, parcel E11b.7.1.1, see seed report.

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.





MEC QA DAILY REPORT

Date: 25 June 2012

Weather Conditions: Sunny Temperature: Low: 52° High: 63°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams conducted operations in:
 - 1) Mag and dig in Future East Garrison (FEG), parcel E11b.7.1.1 Grids C4D4G8 & C4D4G9
 - 2) Anomaly investigation in IAR Range 44 North SCA, Grids B2J8I4

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: N/A

2. SUBCONTRACTOR ACTIVITIES: N/A

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: N/A

- UXOQC conducted QC inspections of UXO teams
- UXOQC assisted ERRG QA in observations

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting conducted, slips and falls, sunscreen use and proper use of PPE.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing Mag and Dig operations FEG, parcel E11b.7.1.1 Grids C4D4G8 & C4D4G9
- QA observed Weston Teams performing anomaly investigation operations in IAR Range 44 SCA, Grids B2J8I4.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Wire and metal scrap
 5. Munitions Related Debris found in grid: None.
 6. MEC found in grid: None.
 7. QA Seeds: None

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: N/A

PICTURES



Picture 1: Reacquiring anomalies IAR MRA



Pic 2: Using a sift table in grid operations IAR MRA



Pic 3: Lane control in Mag and Dig operations IAR MRA

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI (Pulse Induction) Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0



ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 6/26/12

Work Task (Milestone/Activity):

- Weston Teams conducted operations in:
 - 1) Mag and dig in Future East Garrison (FEG), parcel E11b.7.1.1 Grids C4D4G8 & C4D4G9
 - 2) Anomaly investigation in IAR Range 44 North SCA, Grids B2J8I4

Survey Period: 6/25/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA observed morning safety meeting conducted, slips and falls, sunscreen use and proper use of PPE.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston Teams performing Mag and Dig operations FEG, parcel E11b.7.1.1 Grids C4D4G8 & C4D4G9
- QA observed Weston Teams performing anomaly investigation operations in IAR Range 44 North SCA, Grids B2J8I4.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Wire and metal scrap
 5. Munitions Related Debris found in grid: None.
 6. MEC found in grid: None.
 7. QA Seeds: None.

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



MEC QA DAILY REPORT

Date: 03 Aug 2012

Weather Conditions: Partly cloudy **Temperature:** Low: 54° High: 63°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams conducted operations in:
 - 1) Mag and dig in Future East Garrison (FEG), parcel E11b.6.1.1 Grids C4F3H0, C4F3I4 and C4F3I0
 - 2) Backhoe operations in Future East Garrison (FEG), parcel E11b.6.1.1 Grid C4F4F2
 - 3) Mag and Dig in IAR Range 47 SCA, Grids B2J8I8, B2J6I7, B2J6J6 and C2J6H8

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *N/A*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: *N/A*

- UXOQC conducted QC inspections of UXO teams

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting conducted, slips and falls and proper use of PPE.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston teams performing Mag and Dig operations FEG, parcel E11b.6.1.1 Grids C4F3H0, C4F3I4 & C4F3I0
- QA observed ESCA RP Team performing backhoe operations FEG, parcel E11b.6.1.1 Grid C4F4F2
- QA observed ESCA RP Teams performing anomaly investigation operations in IAR Range 47 SCA, Grids B2J8I8, B2J6I7, B2J6J6, & C2J6H8.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Wire, aluminum and metal scrap
 5. Munitions Related Debris found in grid: Numerous expended 40 MM projectile and expended 3.5 Rocket components.
 6. MEC found in grid: None.
 7. QA Seeds during visit: None

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*

PICTURES



Picture 1: Mag and Dig in IAR Range 47



Pic 2: Mag and dig in Future East Garrison parcel E11b.6.1.1



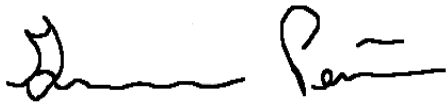
Pic 3: Backhoe operations in Future East Garrison parcel E11b.6.1.1



Pic 4 & 5: Orange bucket with non-munitions scrap, tailgate with MD

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI (Pulse Induction) Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0



ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 8/05/12

Work Task (Milestone/Activity):

- Weston Teams conducted operations in:
 - 1) Mag and dig in Future East Garrison (FEG), parcel E11b.6.1.1 Grids C4F3I9 and C4F3I0
 - 2) Backhoe operations in Future East Garrison (FEG), parcel E11b.6.1.1 Grid C4F4F2
 - 3) Mag and Dig in IAR Range 47 SCA, Grids B2J8I8, B2J6I7, B2J6J6 and C2J6H8

Survey Period: 8/03/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA observed morning safety meeting conducted, slips and falls and proper use of PPE.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston teams performing Mag and Dig operations FEG, parcel E11b.6.1.1 Grids C4F3H0, C4F3I4 & C4F3I0
- QA observed ESCA RP Team performing backhoe operations FEG, parcel E11b.6.1.1 Grid C4F4F2
- QA observed Weston Teams performing anomaly investigation operations in IAR Range 47 SCA, Grids B2J8I8, B2J6I7, B2J6J6, & C2J6H8.
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Wire, aluminum and metal scrap
 5. Munitions Related Debris found in grid: Numerous expended 40 MM projectile and expended 3.5 Rocket components.
 6. MEC found in grid: None.
 7. QA Seeds during visit: None

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



MEC QA DAILY REPORT

Date: 06 Sep 2012

Weather Conditions: Clear and sunny Temperature: Low: 55° High: 69°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams conducted anomaly investigation in Future East Garrison (FEG) MRA, parcel E11b.7.1.1 Grenade range
- Weston performed sift operations in IAR Range 47 SCA

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *One 40mm projectile was detonated today*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: *N/A*

- UXOQC conducted QC inspections of UXO teams

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting conducted, slips and falls and proper use of PPE.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston teams performing anomaly investigation in FEG MRA, parcel E11b.7.1.1 grenade range
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Wire and metal scrap
 5. Munitions Related Debris found in grid: None.
 6. MEC found in grid: None.
 7. QA Seeds during visit: None
- QA observed sift operations
 1. Sifter was down and repairs were performed.

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*

PICTURES



Picture 1: Anomaly investigation performed in FEG MRA, parcel E11b.7.1.1 grenade range



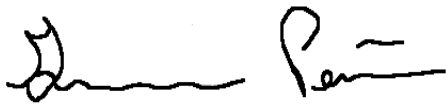
Pic 2: Sift table used in FEG MRA, parcel E11b.7.1.1 grenade range



Pic 3: Anomaly locating prior to investigation IAR MRA

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI (Pulse Induction) Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0



ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 9/07/12

Work Task (Milestone/Activity):

- Weston Teams conducted anomaly investigation in Future East Garrison (FEG) MRA, parcel E11b.7.1.1 Grenade range
- Weston performed sift operations in IAR Range 47 SCA

Survey Period: 9/06/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Frank Cota, ERRG MEC Quality Assurance Professional

Observations:

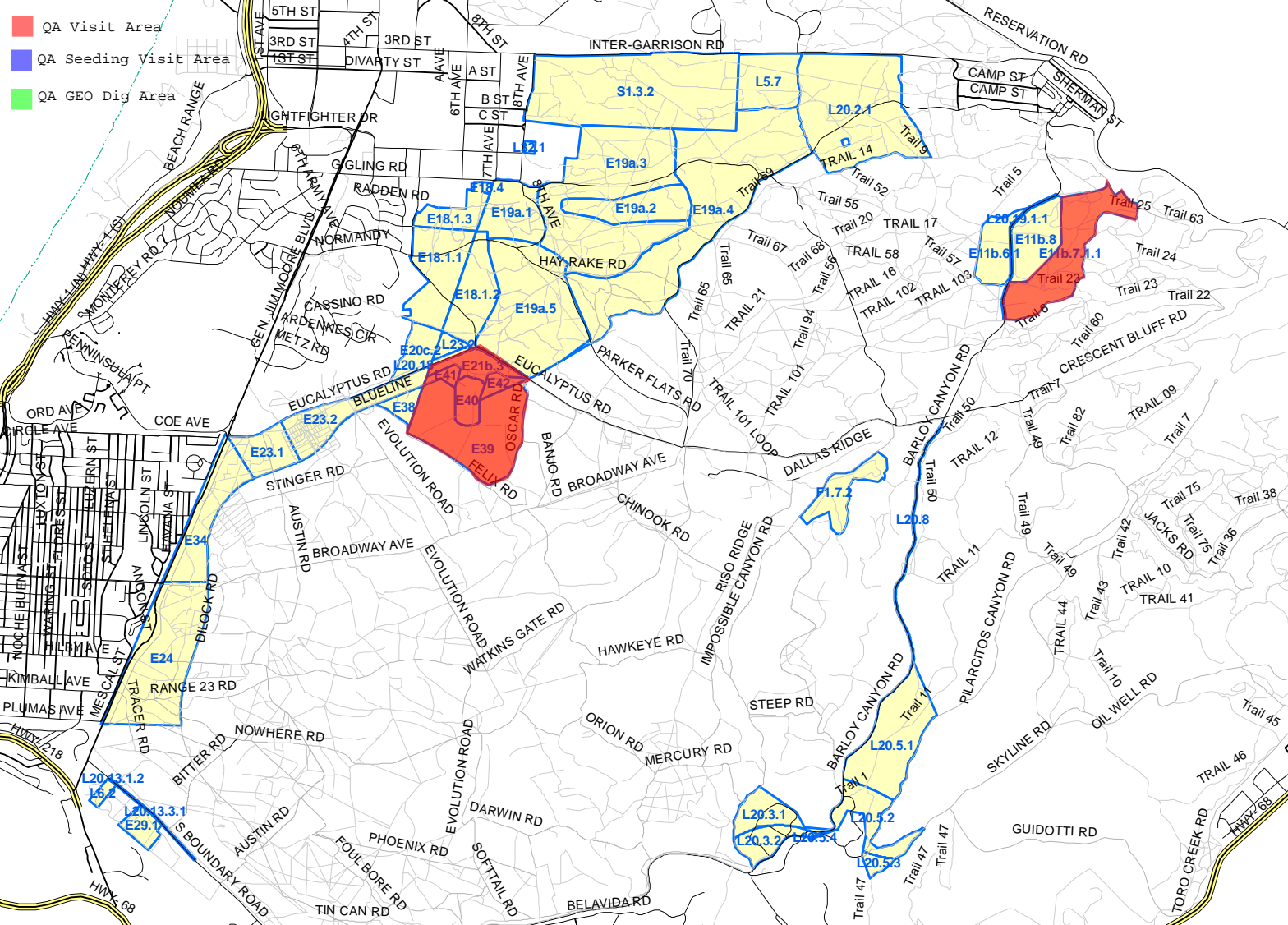
- QA observed morning safety meeting conducted, slips and falls and proper use of PPE.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston teams performing anomaly investigation in FEG MRA, parcel E11b.7.1.1 grenade range
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Wire and metal scrap
 5. Munitions Related Debris found in grid: None.
 6. MEC found in grid: None.
 7. QA Seeds during visit: None
- QA observed sift operations
 1. Sifter was down and repairs were performed.

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.





MEC QA DAILY REPORT

Date: 08 Oct 2012

Weather Conditions: Foggy and cool Temperature: Low: 53° High: 65°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams conducted anomaly investigation in IAR 44 North SCA, grids B2J8I4, B2J8H4, &
- performed sift operations in FEG, parcel E11b.7.1.1

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *N/A*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: *N/A*

- UXOQC conducted QC inspections of UXO teams

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting, covered topics were slips and falls and proper use of PPE with safety glasses use emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston teams performing anomaly investigation in IAR Range 44 North SCA, grids B2J8I4, B2J8H4, & B2J8H3
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Wire, metal scrap and range debris
 5. Munitions Related Debris found in grid: None.
 6. MEC found in grid: None.
 7. QA Seeds during visit: None
- QA observed sift operations
 1. Sifting performed at FEG, parcel E11b.7.1.1
 2. Safe heavy equipment practices observed.
- ERRG QA blind seeding activities in Parker Flats, see blind seed report.

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*

PICTURES



Picture 1: Sift table used in IAR 44 North SCAanomaly investigations



Pic 2: Anomaly pinpointing at IAR Range 44 North SCA



Pic 3: View of sift operations in FEG parcel E11b.7.1.1

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI (Pulse Induction) Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0



ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 10/11/12

Work Task (Milestone/Activity):

- Weston Teams conducted anomaly investigation in IAR 44 North SCA, grids B2J8I4, B2J8H4, & B2J8H3
- Weston performed sift operations in FEG, parcel E11b.7.1.1

Survey Period: 10/08/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA observed morning safety meeting, covered topics were slips and falls and proper use of PPE with safety glasses use emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston teams performing anomaly investigation in IAR 44 North SCA, grids B2J8I4, B2J8H4, & B2J8H3
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Wire, metal scrap and range debris
 5. Munitions Related Debris found in grid: None.
 6. MEC found in grid: None.
 7. QA Seeds during visit: None
- QA observed sift operations
 1. Sifting performed at FEG, parcel E11b.7.1.1
 2. Safe heavy equipment practices observed.
 1. ERRG QA blind seeding activities in Parker Flats, see blind seed report.

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.

MEC QA DAILY REPORT

Date: 08 Nov 2012

Weather Conditions: Clear in the AM/some rain **Temperature: Low:** 45° **High:** 54°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams conducted anomaly investigation in IAR 47 SCA, grids B2J6I6, B2J6J5, B2J6J6 and IAR 44 North SCA grids C2A8F5 & C2A8F6
- Weston performed sift operations in FEG, parcel E11b.7.1.1

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: N/A

2. SUBCONTRACTOR ACTIVITIES: N/A

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: N/A

- UXOQC conducted QC inspections of UXO teams

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting, covered topics were slips and falls and proper use of PPE emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston teams performing anomaly investigation in IAR 47 SCA, grids B2J6I6, B2J6J5, B2J6J6 and IAR 44 North SCA grids C2A8F5 & C2A8F6
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Metal scrap and range debris
 5. Munitions Related Debris found in grid: Expended 40mm projectile components.
 6. MEC found in grid: None.
 7. QA Seeds during visit: None
- QA observed sift operations
 1. Sifting performed at FEG, parcel E11b.7.1.1
 2. Safe heavy equipment practices observed.
- QA conducted QA inspection of FEG, parcel E11b.7.1.1 grid C4D5G4
- ERRG QA personnel conduct intrusive investigations of Geo QA picks in IAR 47 SCA

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: N/A

PICTURES



Picture 1: IAR 47, anomaly investigation and sift table



Picture 2: Pinpointing and investigation in IAR 47



Picture 3: Proper usage of EM61

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI (Pulse Induction) Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0

ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 11/08/12

Work Task (Milestone/Activity):

- Weston Teams conducted anomaly investigation in IAR 47 SCA, grids B2J6I6, B2J6J5, B2J6J6 and IAR 44 North SCA
grids C2A8F5 & C2A8F6
- Weston performed sift operations in FEG, parcel E11b.7.1.1

Survey Period: 11/12/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the

ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro and Frank Cota, ERRG MEC Quality Assurance Professionals

Observations:

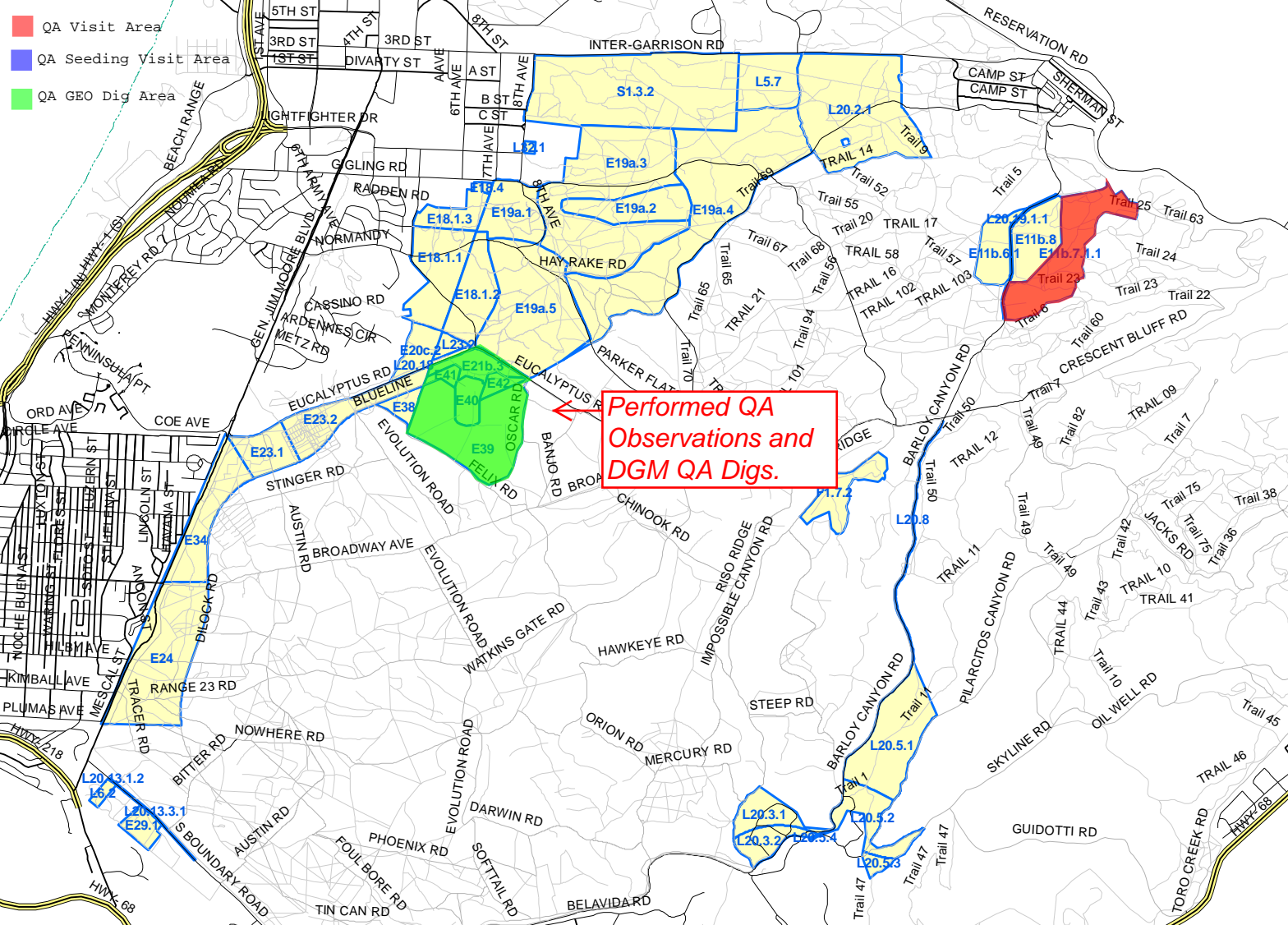
- QA observed morning safety meeting, covered topics were slips and falls and proper use of PPE emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston teams performing anomaly investigation in IAR 47 SCA, grids B2J6I6, B2J6J5, B2J6J6 and IAR 44 North SCA grids C2A8F5 & C2A8F6
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Metal scrap and range debris
 5. Munitions Related Debris found in grid: Expended 40mm projectile components.
 6. MEC found in grid: None.
 7. QA Seeds during visit: None
- QA observed sift operations
 1. Sifting performed at FEG, parcel E11b.7.1.1
 2. Safe heavy equipment practices observed.
- QA conducted QA inspection of FEG, parcel E11b.7.1.1 grid C4D5G4
- ERRG QA personnel conduct intrusive investigations of Geo QA picks in IAR 47 SCA

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



- QA Visit Area
- QA Seeding Visit Area
- QA GEO Dig Area

Performed QA Observations and DGM QA Digs.



MEC QA DAILY REPORT

Date: 05 Dec 2012

Weather Conditions: Some Rain Temperature: Low: 52° High: 62°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams (2) performing anomaly investigations in Parker Flats Parcel E19a.1, RQA County Development, Grids C2G9D1 & C2G9D2
- Weston performed soil spreading operations in Interim Action Range (IAR) 47 SCA

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: N/A

2. SUBCONTRACTOR ACTIVITIES: N/A

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: N/A

- UXOQC conducted QC inspections of UXO teams

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting, covered topics were slips, PPE and flu season emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston operating in Parker Flats Parcel E19a.1, RQA County Development, Grids C2G9D1 & C2G9D2
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Nails and metal scrap
 5. Munitions Related Debris found in grid: None.
 6. MEC found in grid: None.
 7. QA Seeds during visit: None
- QA observed soil spreading operations IAR 47 SCA
 1. Soil placement at IAR 47 SCA
 2. Safe heavy equipment practices observed.

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: N/A

PICTURES



Picture 1: Weston Personnel performing anomaly acquisition at flag IAR Range 47 SCA



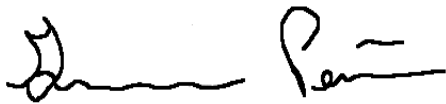
Picture 2: Team performing intrusive investigation on anomalies IAR Range 47 SCA



Picture 3: UXO Technician pinpointing with a Schonstedt detector IAR Range 47 SCA

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI (Pulse Induction) Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0



ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 12/06/12

Work Task (Milestone/Activity):

- Weston Teams (2) performing anomaly investigations in Parker Flats Parcel E19a.1, RQA County Development, Grids C2G9D1 & C2G9D2
- Weston performed soil spreading operations in Interim Action Range (IAR) 47 SCA

Survey Period: 12/05/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA observed morning safety meeting, covered topics were slips, PPE and flu season emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston operating in Parker Flats Parcel E19a.1, RQA County Development, Grids C2G9D1 & C2G9D2
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Nails and metal scrap
 5. Munitions Related Debris found in grid: None.
 6. MEC found in grid: None.
 7. QA Seeds during visit: None
- QA observed soil spreading operations IAR 47 SCA
 1. Soil placement at IAR 47 SCA
- Safe heavy equipment practices observed.

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



MEC QA DAILY REPORT

Date: 20 Dec 2012

Weather Conditions: Partly Cloudy Temperature: Low: 46° High: 58°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams (2) performing anomaly investigations in Parker Flats Parcel E19a.1, RQA County Development, Grids C2F9F5, C2F9F6, & C2F9F7
- Weston performed soil spreading operations in Interim Action Range (IAR) 47 SCA

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: N/A

2. SUBCONTRACTOR ACTIVITIES: N/A

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: N/A

- UXOQC conducted QC inspections of UXO teams

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting, covered topics were slips, PPE usage emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston operating in Parker Flats Parcel E19a.1, RQA County Development, Grids C2F9F5, C2F9F6, & C2F9F7
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Nails, wire and metal scrap
 5. Munitions Related Debris found in grid: Fuze, Gren, Hand, Prac, M228 in grid C2F9F7.
 6. MEC found in grid: None.
 7. QA Seeds during visit: None
- QA observed soil spreading operations IAR 47 SCA
 1. Sifting performed at IAR 47
 2. Safe heavy equipment practices observed.

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: N/A

PICTURES



Picture 1: Personnel performing all procedures; anomaly acquisition, pinpointing, and excavation IAR Range 47 SCA



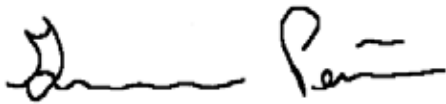
Picture 2: EM 61 utilized for anomaly acquisition IAR Range 47 SCA



Picture 3: UXO Technician pinpointing with Schonstedt detector IAR Range 47SCA

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI (Pulse Induction) Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0



ERRG MEC QA Manager



**Fort Ord Reuse Authority ESCA Remediation Program
Quality Assurance Surveillance Plan**

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 12/21/12

Work Task (Milestone/Activity):

- Weston Teams (2) performing anomaly investigations in Parker Flats Parcel E19a.1, RQA County Development, Grids C2F9F5, C2F9F6, & C2F9F7
- Weston performed soil spreading operations in Interim Action Range (IAR) 47 SCA

Survey Period: 12/20/12

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA observed morning safety meeting, covered topics were slips, PPE usage emphasized.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston operating in Parker Flats Parcel E19a.1, RQA County Development, Grids C2F9F5, C2F9F6, & C2F9F7
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Nails, wire and metal scrap
 5. Munitions Related Debris found in grid: Fuze, Gren, Hand, Prac, M228 MD in grid C2F9F7.
 6. MEC found in grid: None.
 7. QA Seeds during visit: None
- QA observed soil spreading operations IAR 47 SCA
 1. Sifting performed at IAR 47 SCA
 2. Safe heavy equipment practices observed.

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



MEC QA DAILY REPORT

Date: 22 Jan 2013

Weather Conditions: Partly Cloudy **Temperature: Low:** 45° **High:** 70°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston Teams performing anomaly investigations in Parker Flats Parcel E19a.1, RQA towed array/L&F Grid C2F9E6, C2F9E5, and C2F9F4
- Weston Teams performing anomaly investigations in IAR MRA Range 44 North SCA, Grid B2J8I4

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *N/A*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: *N/A*

- UXOQC conducted QC inspections of UXO teams

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting, covered common topics, and emphasized vehicle speeds on roads and pedestrian awareness.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston performing anomaly investigations in Parker Flats Parcel E19a.1, RQA County Development, Grid C2F9E5, C2F9E6, C2F9F4 and IAR MRA Range 44 North SCA, Grid B2J8I4
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Aluminum and metal scrap
 5. Munitions Related Debris found in grid: None.
 6. MEC found in grid: None.
 7. QA Seeds during visit: None

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*

PICTURES



Picture 1: Personnel performing detector function testing



Picture 2: Personnel performing anomaly acquisition and pinpointing IAR Range 47SCA



Picture 3: Sift table used on soils with concentrated small anomalies IAR Range 47SCA

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI (Pulse Induction) Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0



ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 01/23/13

Work Task (Milestone/Activity):

- Weston Teams performing anomaly investigations in Parker Flats Parcel E19a.1, RQA County Development, Grid C2F9E5, C2F9E6, and C2F9F4
- Weston Teams performing anomaly investigations in IAR MRA Range 44 North SCA, Grid B2J8I4

Survey Period: 01/22/13

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA observed morning safety meeting, covered common topics, and emphasized vehicle speeds on roads and pedestrian awareness.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston performing anomaly investigations in Parker Flats Parcel E19a.1, RQA County Development, Grid C2F9E5, C2F9E6, and C2F9F4 and IAR MRA Range 44 North SCA, Grid B2J8I4
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Aluminum and metal scrap
 5. Munitions Related Debris found in grid: None.
 6. MEC found in grid: None.
 7. QA Seeds during visit: None

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



MEC QA DAILY REPORT

Date: 12 Feb 2013

Weather Conditions: Sunny Temperature: Low: 38° High: 55°

1. OPERATIONS PERFORMED/OBSERVED TODAY: (List location & description of activity)

- Weston teams performing anomaly investigations in IAR MRA Range 44 North SCA Grids C2A8A7 and C2A8B7
- Weston DGM team performing towed array QA data collection in IAR MRA Range 47 SCA.

SEE ATTACHED MAP FOR QA VISIT AREAS

Demo Operations: *N/A*

2. SUBCONTRACTOR ACTIVITIES: *N/A*

3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: *N/A*

- UXOQC conducted QC inspections of UXO teams

4. QA AUDITS AND ACTIVITIES:

- QA observed morning safety meeting, covered common topics, and emphasized PPE usage.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston performing anomaly investigations in IAR MRA Range 44 North SCA Grids C2A8 and C2A8 6,
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Aluminum and metal scrap
 5. Munitions Related Debris found in grid: Expended M72 components.
 6. MEC found in grid: One (1) MK2 grenade, two (2) .22 caliber M73
 7. QA Seeds during visit: None
- QA observed Weston DGM Team performing towed array QA data collection in IAR MRA Range 47 SCA
 1. DGM equipment QC checks performed at the IVS before and after operations
 2. Observed DGM performed within boundaries of the required areas
 3. Safe work practices observed

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*

PICTURES



Picture 1: Personnel performing detector function testing



Picture 2: UXO Personnel performing anomaly investigations IAR



Picture 3: MD recovered by the team



Picture 4: MK2 grenade recovered by the team



Picture 5: DGM operations performed in IAR MRA Range 47

ERRG EQUIPMENT STATUS

DISCRIPTION	QTY ON HAND	QTY IN USE	QTY DOWN FOR REPAIRS	QTY ON STANDBY
a. Schonstedt	1	0	0	1
b. Whites; Surf PI (Pulse Induction) Dual field	1	0	0	1
c. Site Trucks	1	1	0	0
d. Camera	1	1	0	0



ERRG MEC QA Manager



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 02/13/13

Work Task (Milestone/Activity):

- Weston teams performing anomaly investigations in IAR MRA Range 44 North SCA Grids C2A8D6 and C2A8D7
- Weston DGM team performing towed array QA data collection in IAR MRA Range 47 SCA.

Survey Period: 02/12/13

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA observed morning safety meeting, covered common topics, and emphasized PPE usage.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston performing anomaly investigations in IAR MRA Range 44 North SCA Grids C2A8D6 and C2A8B7
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Aluminum and metal scrap
 5. Munitions Related Debris found in grid: Expended M72 components.
 6. MEC found in grid: One (1) MK2 grenade, two (2) .22 caliber M73
 7. QA Seeds during visit: None
- QA observed Weston DGM Team performing towed array QA data collection in IAR MRA Range 47 SCA
 1. DGM equipment QC checks performed at the IVS before and after operations
 2. Observed DGM performed within boundaries of the required areas
 3. Safe work practices observed

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

QUALITY ASSURANCE OVERSIGHT REPORTING FORM

Date: 02/13/13

Work Task (Milestone/Activity):

- Weston teams performing anomaly investigations in IAR MRA Range 44 North SCA Grids C2A8A7 and C2A8B7
- Weston DGM team performing towed array QA data collection in IAR MRA Range 47 SCA.

Survey Period: 02/12/13

Method of Surveillance (Visual, Document Review, Inspection, etc.): QA Observations Concerning the ESCA RP Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- QA observed morning safety meeting, covered common topics, and emphasized PPE usage.
- QA observed Weston teams perform and complete equipment checks prior to operations.
- QA observed Weston teams utilizing required PPE during all operations visited.
- QA observed Weston performing anomaly investigations in IAR MRA Range 44 North SCA Grids C2A8A7 and C2A8B7
 1. Safe work practices observed
 2. Proper and safe dig techniques used
 3. Excavations cleared of anomalies
 4. Range debris recovered in grid: Aluminum and metal scrap
 5. Munitions Related Debris found in grid: Expended M72 components.
 6. MEC found in grid: One (1) MK2 grenade, two (2) .22 caliber M73
 7. QA Seeds during visit: None
- QA observed Weston DGM Team performing towed array QA data collection in IAR MRA Range 47 SCA
 1. DGM equipment QC checks performed at the IVS before and after operations
 2. Observed DGM performed within boundaries of the required areas
 3. Safe work practices observed

Corrective Action Required: Yes No Evaluation

of ESCA RP Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.

Appendix B. InDepth DGM QA Report

QA Summary Report

IAR MRA Ranges 44 & 47

August 2014



November 13, 2012

Mr. Frank Cota
ERRG, Incorporated
185 Mason Circle, Ste A
Concord, California 94520

Subject: Draft IAR, Range 47 FORA DGM QA Resurvey Report, Former Fort Ord, Monterey County, California

Dear Mr. Cota:

InDepth Corporation (InDepth) is pleased to present this letter report outlining the activities completed and resultant findings of the digital geophysical mapping (DGM) quality assurance (QA) activities associated with the data review and QA resurvey results of the IAR, Range 47 IAR Range 47 Investigation performed by Weston Solutions, Inc. (Weston) at the former Fort Ord. This review was performed using the data available within the October 20, 2012 data transmittal provided by Mark Saunders of Weston Solutions, Inc. and DGM QA resurvey data obtained on October 29, 2012.

Under contract to ERRG, Inc. (ERRG), InDepth performed a review of the IAR, Range 47 IAR Range 47 DGM data. InDepth reviewed approximately 10% of the production DGM data obtained by Weston throughout Range 47. These data were reviewed for adherence to the data quality standards based on the accepted work plan. This review included a review of the daily quality control checks, the data spacing, and the cross track line spacing. Data were provided by Weston for 12.5 acres of the investigation areas identified covering a total area of approximately 12.5 acres in Range 47. InDepth performed a DGM QA resurvey of 0.8 acres, representing approximately 6.3% of the area investigated by Weston, Inc. InDepth provided the geophysical results and target lists to ERRG, Inc who performed the intrusive investigation in November, 2012. ERRG provided the Intrusive investigation results to InDepth on November 12, 2012. InDepth's findings indicated that the data were of sufficient quality to adequately support the Phase II MRA RI within the areas investigated.

This letter report contains the findings of our DGM QA Resurvey supported by the enclosed figures.

DGM QA DATA EVALUATION PROCEDURES

The DGM data evaluation included a review of the daily quality control data and a review for 10% of the grid data. At the request of FORA the specific parameters evaluated within each data set included evaluation of the data separation, lane spacing, and gap coverage. All data were evaluated using industry standard QA/QC modules within Geosoft Oasis Montaj v7.1 UX-Detect. The following is a summary of the results for the grids evaluated.

IAR, RANGE 47 DGM DATA EVALUATION RESULTS

Data evaluation was performed for the IAR, Range 47 DGM data and results. Data quality evaluation indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified within the work plan during DGM of these areas. Data evaluation indicated that the data within each of these grids met the data quality standards within the work plan.

Data evaluation indicated that along track spacing of the data points within these data sets meets the 0.5 foot data separation standard indicated within the QAPP and work plan. Evaluation of transect spacing for these data sets indicated that all of the areas investigated met the data quality objectives in areas without obstructions. Areas with transect spacing gaps caused by cultural features or other obstructions were investigated by using intrusive teams to perform detector aided real-time investigations throughout the data gap locations.

Evaluation of these DGM data for Range 47 used different criteria based on the proposed land usage. The DGM QA Resurvey data for Range 47 were evaluated using the 50 mV anomaly selection criteria, on the summation data, based on the restricted (open space) land use criteria.

IAR RANGE 47 DGM QA RESURVEY

Range 47 Grid B2J7G3 QA Resurvey Results. The QA resurvey in the Range 47 QA grid (B2J7G3) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in 10,000 ft² of DGM QA resurvey, as shown on Figure 1. The QA DGM resurvey resulted in a site characterized by background readings and 9 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. One of the 9 DGM QA targets was located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 9 targets resulted in four no-contacts (false-positives), one piece of munitions related

debris and 4 pieces of frag or small metallic items, as shown in Table 3. Since no items, greater than the size or mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Range 47 Grid B2J7G3 QA Resurvey meet the work plan QA objectives.

Range 47 Grid C2A7A1 QA Resurvey Results. The QA resurvey in the Range 47 QA grid (C2A7A1) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in approximately 10,000 ft² of DGM QA resurvey, as shown on Figure 2. The QA DGM resurvey resulted in a site characterized by background readings and 5 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. None of the 5 DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 5 targets resulted in one false-positive, three munitions related debris and one piece of frag or small metallic item, as shown in Table 3. Since no items, greater than the size or mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Range 47 Grid C2A7A1 QA Resurvey meet the work plan QA objectives.

Range 47 Grid C2A7A4 QA Resurvey Results. The QA resurvey in the Range 47 QA Grid 3 (C2A7A4) comprised an irregular polygon approximately 100 ft by 1000 ft resulting in 10,000 ft² and of DGM QA resurvey, as shown on Figure 3. The QA DGM resurvey resulted in a site characterized by background readings and 12 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. None of the 12 DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 12 targets resulted in three false-positives, one piece of munitions related debris and eight pieces of frag or small metallic items, as shown in Table 3. Since no items, greater than the size or mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Range 47 Grid C2A7A4 QA Resurvey meet the work plan QA objectives.

Range 47 Grid C2A6D6 QA Resurvey Results. The QA resurvey in the Range 47 QA Grid (C2A6D6) comprised a rectangular polygon approximately 100 ft by 45 ft resulting in approximately 4,500 ft² of DGM QA resurvey, as shown on Figure 4. The QA DGM resurvey resulted in a site characterized by background readings and two geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. None of the two DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these two targets resulted in no false-positives and two pieces of munitions related debris, as shown in Table 3. Since no items, greater than the size or mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Range 47 Grid C2A6D6 QA Resurvey meet the work plan QA objectives.

IAR, RANGE 47 RI/FS QA RESURVEY DGM DATA EVALUATION RESULTS SUMMARY

Evaluation of the DGM data obtained during the QA resurvey indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified in the work plan. Evaluation of these data indicated that the data met, or exceeded the data density along line and transect spacing requirements as indicated within the QAPP and work plan.

Intrusive investigation for all of these 28 targets resulted in eight false-positives, seven items of MEC related debris and 13 pieces of frag or small metallic items were associated various pieces of scrap metal and conductive soil conditions, as shown in Table 3. The high number of false positives identified within these data is interpreted as the result of terrain issues and conductive soil conditions. Since none of the MEC related debris items recovered during the intrusive activities had a size or mass greater than the mass of a 37mm projectile; the results of the Range 47 QA Resurvey indicate that the Range 47 DGM data and results meet the work plan QA objectives.

CONCLUSIONS AND RECOMMENDATIONS

The results of the Range 47 DGM QA data evaluation indicate that the data reviewed meet the standards for quality and along track and cross track data spacing. However, some data gaps resulting from cultural features were unavoidable but well within the acceptance criteria identified in the QAPP. In accordance with the work plan these data gaps were investigated by Weston Solutions, Inc. by using detector aided real-time investigation techniques.

Within the Range 47 DGM QA Resurvey 28 QA targets were identified, only one of which was identified within 3.0 feet of an existing Weston DGM target. Seven of these targets resulted in the discovery of a munitions debris related item, however, none of the items exhibited a size or mass greater than the mass of a 37mm projectile, therefore, the results of the Range 47 QA Resurvey indicates that the Weston Range 47 DGM data and results meet the work plan QA objectives.

STANDARD OF CARE AND WARRANTY

The scope of InDepth's services for the project was to apply appropriate geophysical data processing methods to evaluate the existing geophysical data for adherence to the parameters requested by our client. It should be recognized that the effectiveness and accuracy of the geophysical methods employed by InDepth are subject to the limitations imposed by surface and subsurface conditions at the project site. The geophysical services performed by InDepth were

Mr. Frank Cota
November 13, 2012
Draft IAR Range 47 FORA DGM QA Resurvey Report
Page 5 of 5

conducted using best-practice in a manner consistent with that level of skill ordinarily exercised by members of the profession currently employing similar methods. InDepth makes no other warranty, with respect to the performance of services or products described in this letter report, expressed or implied.

InDepth appreciates the opportunity to assist ERRG with this project. If you have any questions regarding the content this letter report or results of the investigation, feel free to contact me any time at (707) 888-6605.

Respectfully,
InDepth Corporation



Brian W. Hecker
Senior Geophysicist, G.P. 991

Enclosures: QA Resurvey Investigation Summary and Target Tables
QA Resurvey Data Evaluation Figures

cc: file

Table 1.
DGM QA Resurvey Investigation Summary
FORA IAR Range 47 DGM QA Resurvey Report
Former Fort Ord,
Monterey County, California

Geophysical Operation	IAR Area Designation	FORA Grid Designation	Total Area Investigated (sqft)	Number of Targets
QA Resurvey	R47	B2J7G3	10,000	9
QA Resurvey	R47	C2A7A1	10,000	5
QA Resurvey	R47	C2A7A4	10,000	12
QA Resurvey	R47	C2A6D6	4,500	2

Table 2.
DGM QA Target List
FORA IAR Range 47 DGM QA Resurvey Report
Former Fort Ord, Monterey
County, California

IAR Area Designation	Target Name	Easting (US Survey Feet)	Northing (US Survey Feet)	Target Response Value (Sum)	Units
R47	IAR_R47_B2J7G3_001	5741750.00	2121627.00	114.5	mV
R47	IAR_R47_B2J7G3_002	5741758.50	2121627.50	60.4	mV
R47	IAR_R47_B2J7G3_003	5741755.50	2121628.00	53.7	mV
R47	IAR_R47_B2J7G3_004	5741759.00	2121630.50	65.8	mV
R47	IAR_R47_B2J7G3_005	5741727.50	2121650.00	59.3	mV
R47	IAR_R47_B2J7G3_006	5741775.50	2121662.50	61.5	mV
R47	IAR_R47_B2J7G3_007	5741763.00	2121671.50	69.5	mV
R47	IAR_R47_B2J7G3_008	5741791.50	2121679.50	59.5	mV
R47	IAR_R47_B2J7G3_009	5741715.00	2121700.50	58.0	mV
R47	IAR_R47_C2A7A1_001	5741582.50	2122001.50	104.4	mV
R47	IAR_R47_C2A7A1_002	5741516.50	2122038.00	60.3	mV
R47	IAR_R47_C2A7A1_003	5741583.00	2122039.00	57.2	mV
R47	IAR_R47_C2A7A1_004	5741502.50	2122052.00	66.2	mV
R47	IAR_R47_C2A7A1_005	5741585.50	2122068.00	65.7	mV
R47	IAR_R47_C2A7A4_001	5741871.00	2121998.00	53.5	mV
R47	IAR_R47_C2A7A4_002	5741874.00	2121998.00	72.4	mV
R47	IAR_R47_C2A7A4_003	5741879.50	2122002.00	97.0	mV
R47	IAR_R47_C2A7A4_004	5741869.00	2122006.00	113.6	mV
R47	IAR_R47_C2A7A4_005	5741895.00	2122006.50	56.8	mV
R47	IAR_R47_C2A7A4_006	5741895.00	2122009.00	52.9	mV
R47	IAR_R47_C2A7A4_007	5741845.00	2122014.50	73.9	mV
R47	IAR_R47_C2A7A4_008	5741869.00	2122025.50	51.0	mV
R47	IAR_R47_C2A7A4_009	5741858.50	2122033.50	65.2	mV
R47	IAR_R47_C2A7A4_010	5741892.50	2122054.00	54.8	mV
R47	IAR_R47_C2A7A4_011	5741871.00	2122098.00	91.3	mV
R47	IAR_R47_C2A7A4_012	5741877.00	2122098.00	58.1	mV
R47	IAR_R47_C2A6D6_001	5741045.00	2122303.00	58.9	mV
R47	IAR_R47_C2A6D6_002	5741037.50	2122326.00	51.3	mV

Note: Survey Coordinates Presented in NAD83 California Zone 4 in US Survey Feet

Table 3.
 QA Intrusive Investigation Results
 FORA IAR Range 47 DGM QA Resurvey Report
 Former Fort Ord, Monterey
 County, California


















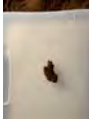









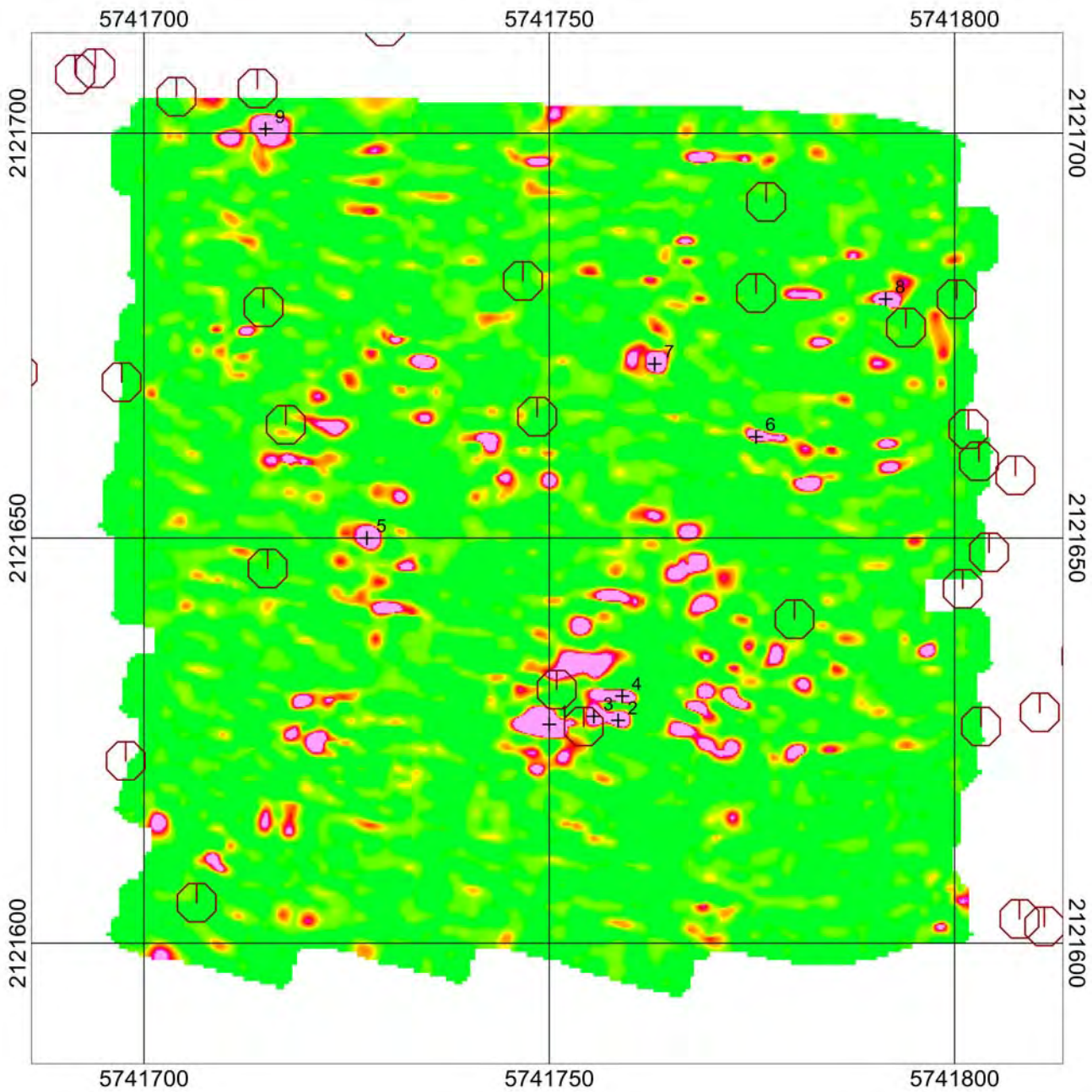
Project Name:	FORA QA2 Resurvey		UXO Contractor	LFR / Weston		Equipment	Serial Number				
Project Location:	Monterey County, CA		Geophysical Contractor:	Weston		EM61	Weston				
Coordinate System:	NAD83 CS83 Zone 4 (US survey feet)		Project Geophysicist:	Matthew Gifford		Allegro	Weston				
Survey Area:	IAR Range 47		QC Geophysicist:			Magnetometer	Schonstedt				
Field Team:			Regulatory POC:			All Metals	White XLT				
Date: September 2010			QA Contractor:	InDepth / ERRG		Positioning	Trimble RTK				
Team Leader Signature:			QA Geophysicist:	Brian Hecker			NA				
Project:	FORA QA2 Resurvey	Survey Area:	IAR Range 47	Field Team:	0 Date:						
NOTE 1 - Anomaly Type: U = UXO, F = Frag, MD = Munitions Debris, S = Scrap, A = Small Arms Ammunition, NC = No Contact, O = Other											
NOTE 2 - Target Azimuth: N = North, NW = Northwest, W = West, SW = Southwest, S = South, SE = Southeast, E = East, NE = Northeast											
NOTE 3 - Target Inclination: NU = Vertical Nose Up, ND = Vertical Nose Down, INU = Inclined Nose Up, IND = Inclined Nose Down, H = Horizontal											
Target Info			Reacquisition Survey			Dig Results					
Target Name	Instrument Response	Units	Channel	Response (mV)	Anomaly Type (note 1)	Approx. Weight (Lbs.)	Azimuth of nose (note 2)	Inclination of nose (note 3)	Depth to top (inches)	Digital Photo Number	Comments
IAR_R47_B2J7G3_001	114.5	Stack mV	Ch3	30	F	2 oz.	NW	H	4	21 	Frag at 2"X1" in size
IAR_R47_B2J7G3_002	60.4	Stack mV	Ch3	20	O						Excavated: no item found, rescanned after dug @ 2mV
IAR_R47_B2J7G3_003	53.7	Stack mV	Ch3	20	O					22 	Rusty dirt found, rescanned after dig with reading gone
IAR_R47_B2J7G3_004	65.8	Stack mV	Ch3	58	O						Excavated: no item found, rescanned after dug @ low mV
IAR_R47_B2J7G3_005	59.3	Stack mV	Ch3	109	MD	3 oz.	N/A	H	6	20 	2.25" 14.5 subcal
IAR_R47_B2J7G3_006	61.5	Stack mV	Ch3	20	F	1 oz.	N/A	H	3	23 	Frag at 2.5"X .25" in size
IAR_R47_B2J7G3_007	69.5	Stack mV	Ch3	79	F	2 oz.	N/A	H	3	24 	Frag at 2.5"X .50" in size
IAR_R47_B2J7G3_008	59.5	Stack mV	Ch3	33	F/A	3 oz.	N/A	H	1	25 	7.62 bullet and Frag at 2.5"X .50" in size
IAR_R47_B2J7G3_009	58.0	Stack mV	Ch3	4	NC					19 	Excavated: no item found, rescanned after dug @ 1mV
IAR_R47_C2A7A1_001	104.4	Stack mV	Ch3	175	F	2.5 oz.	N/A	H	.5	16 	Frag at 3"X 1.25" in size
IAR_R47_C2A7A1_002	60.3	Stack mV	Ch3	91	MD	.25 oz.	N/A	N/A	1	17 	M407 A1. 40mm nose cap (aluminum)
IAR_R47_C2A7A1_003	57.2	Stack mV	Ch3	6	O					15 	Found much corroded aluminum, mV reading went away; see picture.
IAR_R47_C2A7A1_004	66.2	Stack mV	Ch3	77	MD	.25 oz.	N/A	N/A	.5	18 	M407 A1. 40mm nose cap (aluminum)
IAR_R47_C2A7A1_005	65.7	Stack mV	Ch3	122	MD	.25 OZ.	N/A	N/A	2	14 	1.5' south from GPS point; M407 A1. 40mm nose cap (aluminum)
IAR_R47_C2A7A4_001	53.5	Stack mV	Ch3	126	MD	.25 OZ.	N/A	N/A	1	7 	1' NW from GPS point; two (2) 7.62 bullets
IAR_R47_C2A7A4_002	72.4	Stack mV	Ch3	71	O					3 	Open hole to a reading of 6mV with no item found, in gully not far from anomaly number1. See picture.
IAR_R47_C2A7A4_003	97.0	Stack mV	Ch3	22	O					2 	Open hole to a reading of 4mV with no item found, in gully again. Items may have been removed in this area by teams.

Table 3.
 QA Intrusive Investigation Results
 FORA IAR Range 47 DGM QA Resurvey Report
 Former Fort Ord, Monterey
 County, California

IAR_R47_C2A7A4_004	113.6	Stack mV	Ch3	54	F	1 oz.	N/A	N/A	10	4, 5, 6 	Open hole with no reading and no item found, but 3' down slope found 133 mV hit and 2"X.5"  
IAR_R47_C2A7A4_005	56.8	Stack mV	Ch3	19	0						Open hole down to no reading, no item found.
IAR_R47_C2A7A4_006	52.9	Stack mV	Ch3	57	F	2 oz.	N/A	N/A	4	1 	Frag at 2.5"X .50" in size
IAR_R47_C2A7A4_007	73.9	Stack mV	Ch3	55	F	2 oz.	N/A	N/A	1	10 	Frag at 2.5"X .50" in size
IAR_R47_C2A7A4_008	51.0	Stack mV	Ch3	32	F	.5 oz.	N/A	N/A	3	8 	Frag at 1"X .25" in size
IAR_R47_C2A7A4_009	65.2	Stack mV	Ch3	53	F	1 oz.	N/A	N/A	3	9 	

Digital
Photos
QA Intrusive Investigation Results
FORA IAR Range 47 DGM QA Resurvey Report
Former Fort Ord, Monterey



Project:		FORA QA2 Resurvey		Survey Area:		IAR Range 47		Field Team:		Date:	
NOTE 1 - Anomaly Type: U = UXO, F = Frag, MD = Munitions Debris, S = Scrap, A = Small Arms Ammunition, NC = No Contact, O = Other											
NOTE 2 - Target Azimuth: N = North, NW = Northwest, W = West, SW = Southwest, S = South, SE = Southeast, E = East, NE = Northeast											
NOTE 3 -Target Inclination: NU = Vertical Nose Up, ND = Vertical Nose Down, INU = Inclined Nose Up, IND = Inclined Nose Down, H = Horizontal											
Target Info			Reacquisition Survey		Dig Results						
Target Name	Instrument Response	Units	Channel	Response (mV)	Anomaly Type (note 1)	Approx. Weight (Lbs.)	Azimuth of nose (note 2)	Inclination of nose (note 3)	Depth to top (inches)	Digital Photo Number	Comments
IAR_R47_C2A7A4_010	54.8	Stack mV	Ch3	52	F	4 oz.	N/A	N/A	2 and 3	11 	Two (2) pieces of Frag: One at 3"X .50" and other at 2"X.50" in size
IAR_R47_C2A7A4_011	91.3	Stack mV	Ch3	154	F	2 oz.	N/A	N/A	3	13 	Frag at 3.5"X .50" in size
IAR_R47_C2A7A4_012	58.1	Stack mV	Ch3	24	F	1.5 oz.	N/A	N/A	3	12 	Frag at 12.5"X 1" in size
IAR_R47_C2A6D6_001	58.9	Stack mV	Ch3	38	MD	1.5 oz.	N/A	N/A	12	26 	M407 A1. 40mm empty body (aluminum)
IAR_R47_C2A6D6_002	51.3	Stack mV	Ch3	53	MD	3 oz.	N/A	N/A	10	27 	Fuze piece and a M407 A1. 40mm empty body (aluminum)



EM61 Stack Response
millivolts (mV)

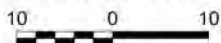


Legend

- +** QA DGM Target
-  QA Polygon Boundary
-  Weston DGM Target



Scale 1:240



US survey foot

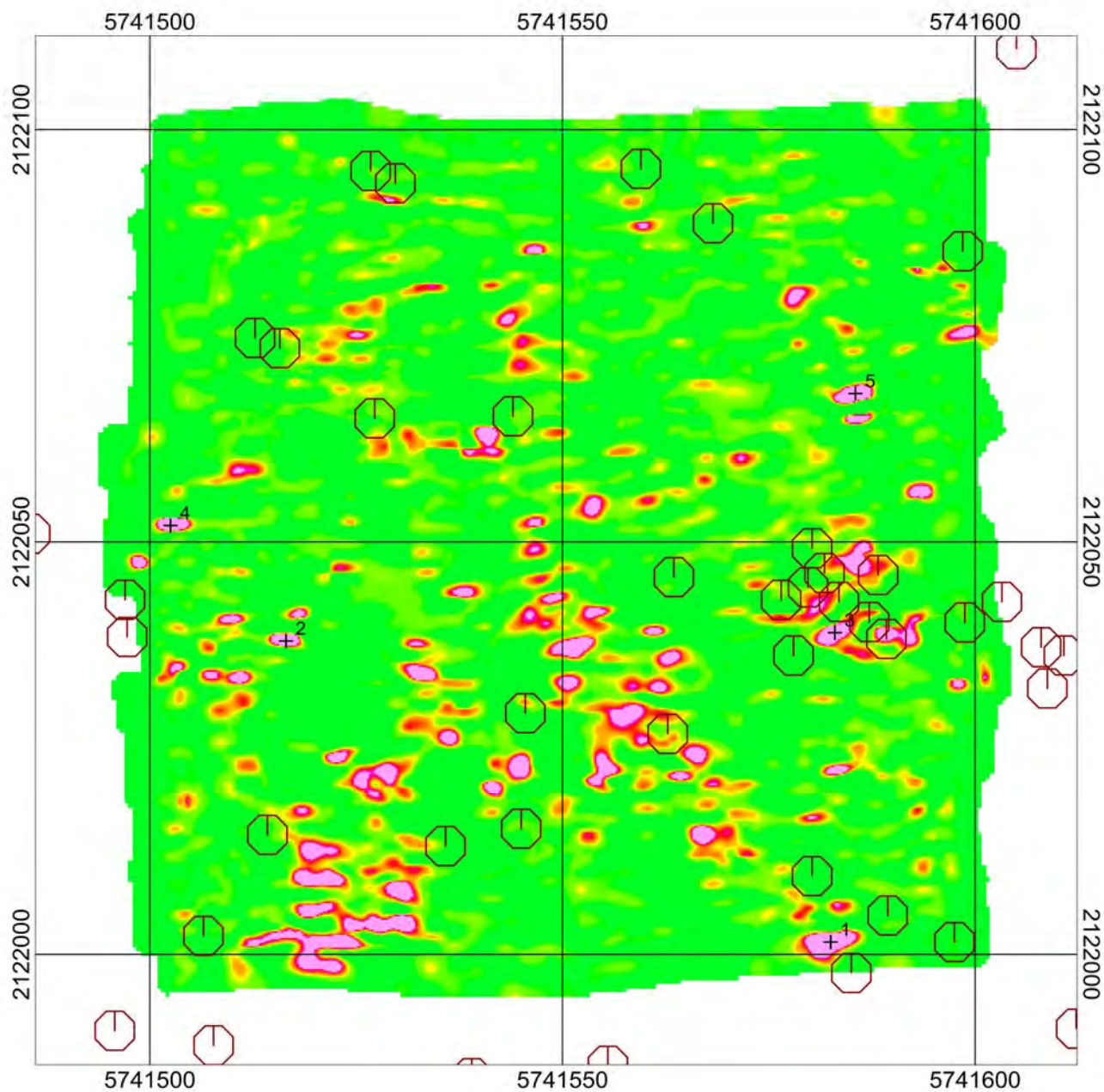
NAD83 / California CS83 zone 4

FORA IAR Range 47

Figure 1
QA Resurvey Range 47 Grid B2J7G3

EM61 Machine-Towed Array
Data Collected 10/29/2012
InDepth Corporation



Brian Hecker



EM61 Stack Response
millivolts (mV)



Legend

-  QA DGM Target
-  QA Polygon Boundary
-  Weston DGM Target

FORA IAR Range 47

Figure 2
QA Resurvey Range 47 Grid C2A7A1

EM61 Machine-Towed Array
Data Collected 10/29/2012
InDepth Corporation

Brian Hecker

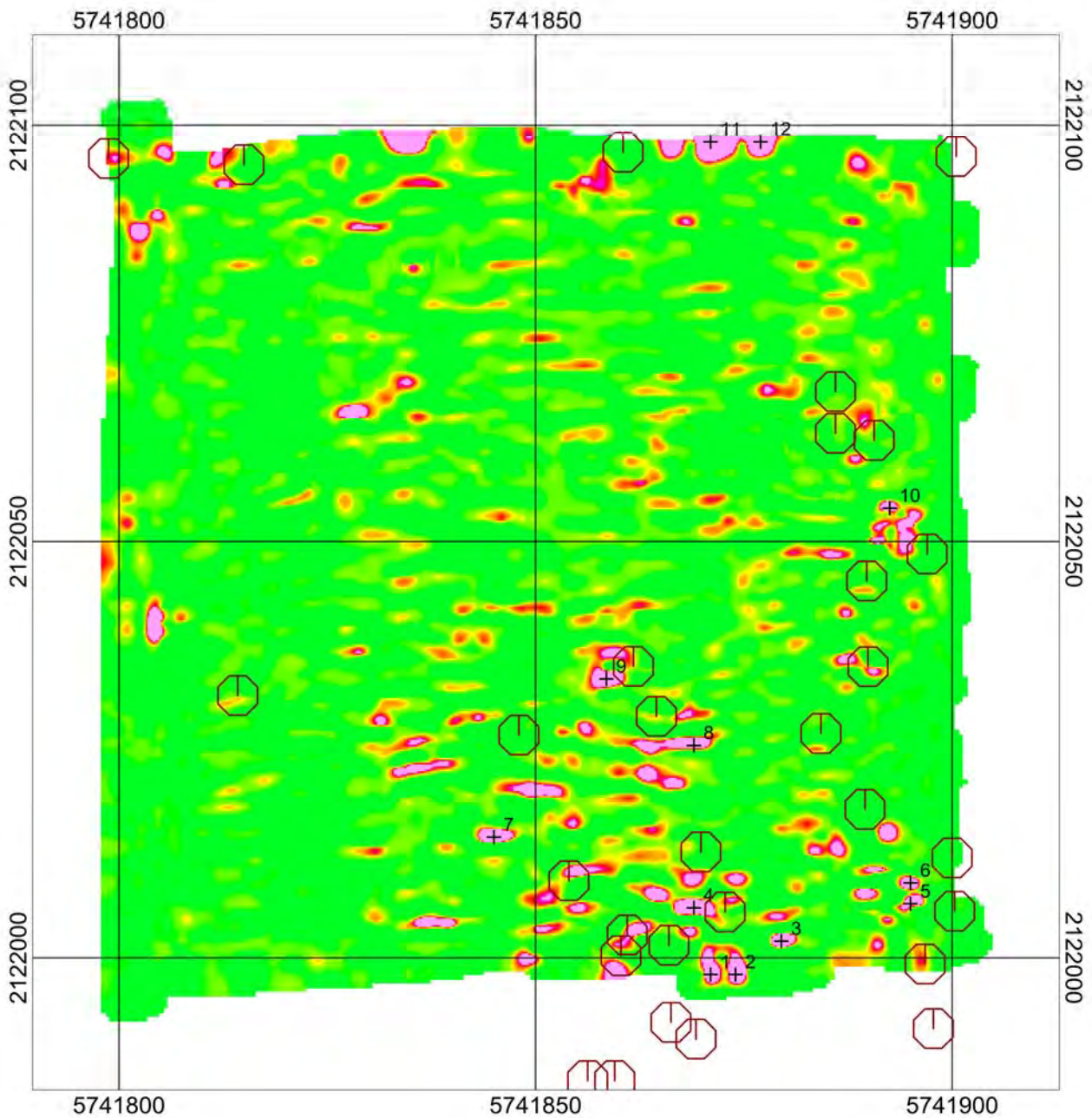


Scale 1:240

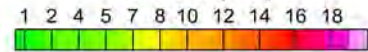


US survey foot

NAD83 / California CS83 zone 4



EM61 Stack Response
milliVolts (mV)

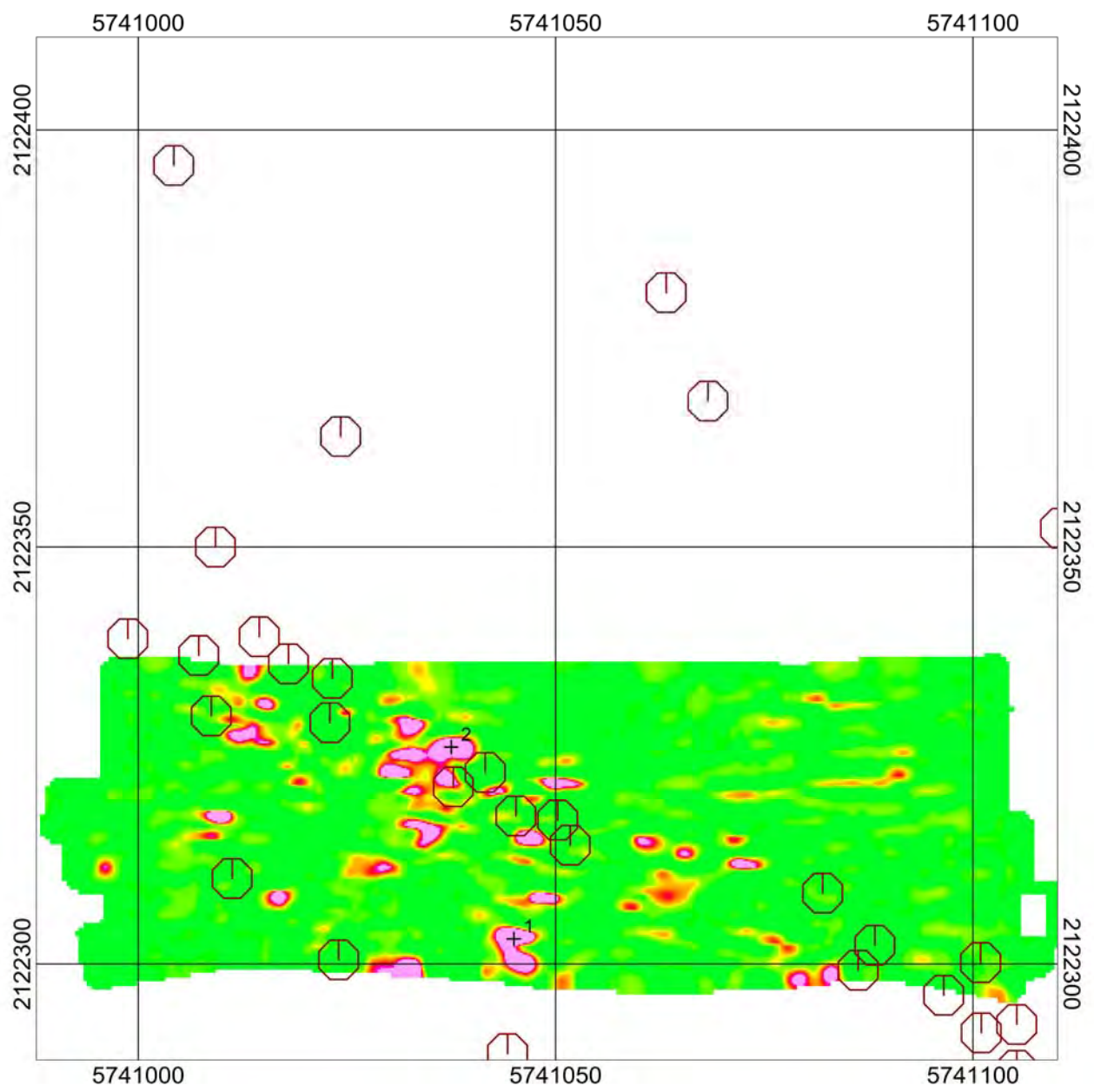


Legend

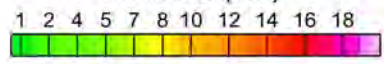
- +** QA DGM Target
- ⊖** Weston DGM Target
- QA Polygon Boundary

Scale 1:240
 10 0 10
 US survey foot
 NAD83 / California CS83 zone 4

FORA IAR Range 47
Figure 3 QA Resurvey Range 47 Grid C2A7A4
EM61 Machine-Towed Array Data Collected 10/29/2012 InDepth Corporation
Brian Hecker



EM61 Stack Response
milliVolts (mV)



Legend

- +** QA DGM Target
- QA Polygon Boundary
- Weston DGM Target



Scale 1:240



US survey foot
NAD83 / California CS83 zone 4

FORA IAR Range 47
Figure 4 QA Resurvey Range 47 Grid C2A6D6
EM61 Machine-Towed Array Data Collected 10/29/2012 InDepth Corporation
Brian Hecker



November 10, 2013

Mr. James Rossi
ERRG, Incorporated
185 Mason Circle, Ste A
Concord, California 94520

Subject: Final IAR, Range 44 FORA DGM QA Resurvey Report, Former Fort Ord, Monterey County, California

Dear Mr. Rossi:

InDepth Corporation (InDepth) is pleased to present this letter report outlining the activities completed and resultant findings of the digital geophysical mapping (DGM) quality assurance (QA) activities associated with the data review and QA resurvey results of the IAR, Range 44 Investigation performed by Weston Solutions, Inc. (Weston) at the former Fort Ord. This review was performed using the data available within the March 1, 2013 data transmittal provided by Linda Temple of Weston Solutions, Inc. and DGM QA resurvey data obtained on April 16, 2013.

Under contract to ERRG, Inc. (ERRG), InDepth performed a review of the IAR, Range 44 IAR Range 44 DGM data. InDepth reviewed approximately 10% of the production DGM data obtained by Weston throughout Range 44. These data were reviewed for adherence to the data quality standards based on the accepted work plan. This review included a review of the daily quality control checks, the data spacing, and the cross track line spacing. Data were provided by Weston for 6.9 acres of the investigation areas identified covering a total area of approximately 6.9 acres in Range 44. InDepth performed a DGM QA resurvey of 0.45 acres, representing approximately 6.5% of the area investigated by Weston, Inc. InDepth provided the geophysical results and target lists to ERRG, Inc who performed the intrusive investigation in May 13 2013. ERRG provided the Intrusive investigation results to InDepth on May 27, 2013. InDepth's findings indicated that the data were of sufficient quality to adequately support the Interim Remedial Action within Phase II IAR MRA RI within the areas investigated.

This letter report contains the findings of our DGM QA Resurvey supported by the enclosed figures.

DGM QA DATA EVALUATION PROCEDURES

The DGM data evaluation included a review of the daily quality control data and a review for 10% of the grid data. At the request of FORA the specific parameters evaluated within each data set included evaluation of the data separation, lane spacing, and gap coverage. All data were evaluated using industry standard QA/QC modules within Geosoft Oasis Montaj v8.0 UX-Detect. The following is a summary of the results for the grids evaluated.

IAR, RANGE 44 DGM DATA EVALUATION RESULTS

Data evaluation was performed for the IAR, Range 44 DGM data and results. Data quality evaluation indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified within the work plan during DGM of these areas. Data evaluation indicated that the data within each of these grids met the data quality standards within the work plan.

Data evaluation indicated that along track spacing of the data points within these data sets meets the 0.5 foot data separation standard indicated within the QAPP and work plan. Evaluation of transect spacing for these data sets indicated that all of the areas investigated met the data quality objectives in areas without obstructions. Areas with transect spacing gaps caused by cultural features or other obstructions were investigated by using intrusive teams to perform detector aided real-time investigations throughout the data gap locations.

Evaluation of these DGM data for Range 44 used different criteria based on the proposed land usage. The DGM QA Resurvey data for Range 44 were evaluated using the 300 mV anomaly selection criteria developed for evidence of LAW rockets as provided in the FVF NO. IARWP-004, on the summation data, based on the restricted (open space) land use criteria.

IAR RANGE 44 DGM QA RESURVEY

Range 44 Grid B2J8J6 QA Resurvey Results. The QA resurvey in the Range 44 QA grid (B2J8J6) comprised a rectangular polygon approximately 100 ft by 50 ft resulting in 5,000 ft² of DGM QA resurvey, as shown on Figure 1. The QA DGM resurvey resulted in a site characterized by background readings and 31 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. One of the 31 DGM QA targets was located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 31 targets resulted in no false-positives, two M73 subcal items classified as UXO, 14 munitions related debris items and 15 pieces of frag or small metallic

item, as shown in Table 3. Since no items, greater than the size or mass of a complete LAW rocket, were recovered within this QA resurvey grid, the results of the Range 44 Grid B2J8J6 QA Resurvey meet the work plan QA objectives.

Range 44 Grid C2A8B7 QA Resurvey Results. The QA resurvey in the Range 44 QA grid (C2A8B7) comprised a rectangular polygon approximately 50 ft by 100 ft resulting in approximately 5,000 ft² of DGM QA resurvey, as shown on Figure 2. The QA DGM resurvey resulted in a site characterized by background readings and 14 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Three of the 14 DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 14 targets resulted in no false-positives, 8 munitions related debris items and 4 pieces of frag or small metallic item and 2 pieces of small arms, as shown in Table 3. Since no items, greater than the size or mass of a complete LAW rocket, were recovered within this QA resurvey grid, the results of the Range 44 Grid C2A8B7QA Resurvey meet the work plan QA objectives.

Range 44 Grid C2A8C5 QA Resurvey Results. The QA resurvey in the Range 44 QA grid (C2A8C5) comprised a rectangular polygon approximately 50 ft by 100 ft resulting in 5,000 ft² of DGM QA resurvey, as shown on Figure 3. The QA DGM resurvey resulted in a site characterized by background readings and 10 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Eight of the 10 DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 10 targets resulted in no false-positives, four M73 subcal items classified as UXO, two pieces of munitions related debris and 4 pieces of frag or small metallic items, as shown in Table 3. Since no items, greater than the size or mass of a complete LAW rocket, were recovered within this QA resurvey grid, the results of the Range 44 Grid C2A8C5 QA Resurvey meet the work plan QA objectives.

Range 44 Grid C2A8G7 QA Resurvey Results. The QA resurvey in the Range 44 QA grid (C2A8G7) comprised a rectangular polygon approximately 50 ft by 100 ft resulting in 5,000 ft² of DGM QA resurvey, as shown on Figure 4. The QA DGM resurvey resulted in a site characterized by background readings and 16 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Two of the 16 DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 16 targets resulted in no false-positives, eight piece of munitions related debris and 8 pieces of frag or small metallic items, as shown in Table 3. Since no items, greater than the size or mass of a complete LAW rocket, were recovered within this QA resurvey grid, the results of the Range 44 Grid C2A8G7 QA Resurvey meet the work plan QA objectives.

IAR, RANGE 44 RI/FS QA RESURVEY DGM DATA EVALUATION RESULTS SUMMARY

Evaluation of the DGM data obtained during the QA resurvey indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified in the work plan. Evaluation of these data indicated that the data met, or exceeded the data density along line and transect spacing requirements as indicated within the QAPP and work plan.

Intrusive investigation for all of these 72 targets resulted in no false-positives, six M73 subcal items classified as UXO items, 34 items of MEC related debris, 30 pieces of frag or small metallic items and two pieces of small arms debris were associated various pieces of scrap metal and conductive soil conditions, as shown in Table 3. The low number of false positives identified within these data is interpreted as the extensive surface metallic debris associated with the identified target area. Since none of the MEC related debris items recovered during the intrusive activities had a size or mass greater than the mass of a complete LAW rocket; the results of the Range 44 QA Resurvey indicate that the Range 44 DGM data and results meet the work plan QA objectives.

CONCLUSIONS AND RECOMMENDATIONS

The results of the Range 44 DGM QA data evaluation indicate that the data reviewed meet the standards for quality and along track and cross track data spacing. However, some data gaps resulting from cultural and terrain features were unavoidable but well within the acceptance criteria identified in the QAPP. In accordance with the work plan these data gaps were investigated by Weston Solutions, Inc. by using detector aided real-time investigation techniques.

Within the Range 44 DGM QA Resurvey 72 QA targets were identified, fourteen of which were identified within 3.0 feet of an existing Weston DGM target. Thirty-four of these targets resulted in the discovery of a munitions debris related item, however, none of the items exhibited a size or mass greater than the mass of a complete LAW rocket, therefore, the results of the Range 44 QA Resurvey indicates that the Weston Range 44 DGM data and results meet the work plan QA objectives. It should be noted that six M73 subcal items classified as UXO items were discovered, however, they were within the established geophysical acceptance limits for this investigation area.

STANDARD OF CARE AND WARRANTY

The scope of InDepth's services for the project was to apply appropriate geophysical data

Mr. James Rossi
November 10, 2013
Final IAR Range 44 FORA DGM QA Resurvey Report
Page 5 of 5

processing methods to evaluate the existing geophysical data for adherence to the parameters requested by our client. It should be recognized that the effectiveness and accuracy of the geophysical methods employed by InDepth are subject to the limitations imposed by surface and subsurface conditions at the project site. The geophysical services performed by InDepth were conducted using best-practice in a manner consistent with that level of skill ordinarily exercised by members of the profession currently employing similar methods. InDepth makes no other warranty, with respect to the performance of services or products described in this letter report, expressed or implied.

InDepth appreciates the opportunity to assist ERRG with this project. If you have any questions regarding the content this letter report or results of the investigation, feel free to contact me any time at (707) 888-6605.

Respectfully,
InDepth Corporation



Brian W. Hecker
Senior Geophysicist, G.P. 991

Enclosures: QA Resurvey Investigation Summary and Target Tables
QA Resurvey Data Evaluation Figures

cc: file

Table 1.
 DGM QA Resurvey Investigation Summary
 FORA IAR Range 44 DGM QA Resurvey Report
 Former Fort Ord,
 Monterey County, California

Geophysical Operation	IAR Area Designation	FORA Grid Designation	Total Area Investigated (sqft)	Number of Targets
QA Resurvey	R44	B2J8J6	5,000	31
QA Resurvey	R44	C2A8B7	5,000	14
QA Resurvey	R44	C2A8E5	5,000	10
QA Resurvey	R44	C2A8G7	5,000	16

Table 2.
DGM QA Target List
FORA IAR Range 44 DGM QA Resurvey Report
Former Fort Ord,
Monterey County, California

IAR Area Designation	Target Name	Easting (US Survey Feet)	Northing (US Survey Feet)	Target Response Value (Sum)	Units
R44	IAR_R44-B2J8J6-001	5743015.50	2121899.50	338.4	mV
R44	IAR_R44-B2J8J6-002	5743002.00	2121903.50	331.5	mV
R44	IAR_R44-B2J8J6-003	5743011.50	2121904.50	417.9	mV
R44	IAR_R44-B2J8J6-004	5743037.50	2121907.00	447.4	mV
R44	IAR_R44-B2J8J6-005	5743002.00	2121911.50	534.5	mV
R44	IAR_R44-B2J8J6-006	5743031.50	2121911.50	356.1	mV
R44	IAR_R44-B2J8J6-007	5743032.50	2121917.00	312.6	mV
R44	IAR_R44-B2J8J6-008	5743040.00	2121920.00	720.1	mV
R44	IAR_R44-B2J8J6-009	5743039.00	2121921.50	421.6	mV
R44	IAR_R44-B2J8J6-010	5743037.00	2121923.50	331.8	mV
R44	IAR_R44-B2J8J6-011	5743013.00	2121924.00	1058.9	mV
R44	IAR_R44-B2J8J6-012	5743050.00	2121926.00	393.4	mV
R44	IAR_R44-B2J8J6-013	5743036.00	2121926.50	315.3	mV
R44	IAR_R44-B2J8J6-014	5743009.00	2121928.00	597.6	mV
R44	IAR_R44-B2J8J6-015	5743036.00	2121930.00	437.7	mV
R44	IAR_R44-B2J8J6-016	5743004.50	2121931.00	558.0	mV
R44	IAR_R44-B2J8J6-017	5743014.00	2121932.50	1105.5	mV
R44	IAR_R44-B2J8J6-018	5743010.50	2121932.50	613.5	mV
R44	IAR_R44-B2J8J6-019	5743014.50	2121936.00	394.9	mV
R44	IAR_R44-B2J8J6-020	5743026.50	2121936.00	416.9	mV
R44	IAR_R44-B2J8J6-021	5743041.50	2121941.50	395.1	mV
R44	IAR_R44-B2J8J6-022	5743018.00	2121942.00	393.5	mV
R44	IAR_R44-B2J8J6-023	5743008.50	2121945.50	428.1	mV
R44	IAR_R44-B2J8J6-024	5743008.50	2121951.00	328.0	mV
R44	IAR_R44-B2J8J6-025	5743006.00	2121956.50	420.0	mV
R44	IAR_R44-B2J8J6-026	5743047.00	2121971.00	896.6	mV
R44	IAR_R44-B2J8J6-027	5743047.00	2121975.00	381.7	mV
R44	IAR_R44-B2J8J6-028	5743014.00	2121976.50	300.6	mV
R44	IAR_R44-B2J8J6-029	5743014.00	2121982.50	479.2	mV
R44	IAR_R44-B2J8J6-030	5743037.50	2121985.50	414.0	mV
R44	IAR_R44-B2J8J6-031	5743040.00	2121986.50	454.6	mV
R44	IAR_R44-C2A8B7-032	5743117.00	2122166.50	352.1	mV
R44	IAR_R44-C2A8B7-033	5743137.50	2122167.00	802.2	mV
R44	IAR_R44-C2A8B7-034	5743179.50	2122173.00	328.0	mV
R44	IAR_R44-C2A8B7-035	5743119.50	2122176.00	340.3	mV

Table 2.
DGM QA Target List
FORA IAR Range 44 DGM QA Resurvey Report
Former Fort Ord,
Monterey County, California

IAR Area Designation	Target Name	Easting (US Survey Feet)	Northing (US Survey Feet)	Target Response Value (Sum)	Units
R44	IAR_R44-C2A8B7-036	5743166.00	2122177.50	396.3	mV
R44	IAR_R44-C2A8B7-037	5743164.00	2122182.00	445.8	mV
R44	IAR_R44-C2A8B7-038	5743114.50	2122183.50	590.9	mV
R44	IAR_R44-C2A8B7-039	5743154.00	2122185.50	305.3	mV
R44	IAR_R44-C2A8B7-040	5743144.50	2122189.50	391.2	mV
R44	IAR_R44-C2A8B7-041	5743184.00	2122190.00	369.4	mV
R44	IAR_R44-C2A8B7-042	5743164.00	2122192.00	548.8	mV
R44	IAR_R44-C2A8B7-043	5743186.50	2122193.00	311.2	mV
R44	IAR_R44-C2A8B7-044	5743141.00	2122195.00	429.0	mV
R44	IAR_R44-C2A8B7-045	5743170.00	2122198.50	686.7	mV
R44	IAR_R44-C2A8C5-046	5742979.50	2122277.50	563.2	mV
R44	IAR_R44-C2A8C5-047	5742942.50	2122279.50	304.8	mV
R44	IAR_R44-C2A8C5-048	5742909.50	2122283.50	355.4	mV
R44	IAR_R44-C2A8C5-049	5742937.50	2122286.00	304.5	mV
R44	IAR_R44-C2A8C5-050	5742978.50	2122296.50	378.4	mV
R44	IAR_R44-C2A8C5-051	5742906.00	2122296.50	308.6	mV
R44	IAR_R44-C2A8C5-052	5742915.50	2122299.00	392.0	mV
R44	IAR_R44-C2A8C5-053	5742999.50	2122299.50	355.9	mV
R44	IAR_R44-C2A8C5-054	5742924.50	2122299.50	329.0	mV
R44	IAR_R44-C2A8C5-055	5742900.00	2122300.50	1012.5	mV
R44	IAR_R44-C2A8G7-056	5743147.50	2122601.00	355.9	mV
R44	IAR_R44-C2A8G7-057	5743123.00	2122610.50	484.4	mV
R44	IAR_R44-C2A8G7-058	5743145.50	2122614.50	322.9	mV
R44	IAR_R44-C2A8G7-059	5743132.00	2122620.50	405.2	mV
R44	IAR_R44-C2A8G7-060	5743130.00	2122641.50	351.9	mV
R44	IAR_R44-C2A8G7-061	5743127.50	2122645.00	328.8	mV
R44	IAR_R44-C2A8G7-062	5743145.50	2122649.00	526.5	mV
R44	IAR_R44-C2A8G7-063	5743101.50	2122658.00	415.1	mV
R44	IAR_R44-C2A8G7-064	5743104.00	2122660.50	390.1	mV
R44	IAR_R44-C2A8G7-065	5743107.50	2122662.00	1164.1	mV
R44	IAR_R44-C2A8G7-066	5743111.50	2122663.50	538.5	mV
R44	IAR_R44-C2A8G7-067	5743103.50	2122664.00	516.0	mV
R44	IAR_R44-C2A8G7-068	5743124.50	2122672.00	770.0	mV
R44	IAR_R44-C2A8G7-069	5743126.50	2122682.00	460.8	mV
R44	IAR_R44-C2A8G7-070	5743102.00	2122683.50	387.8	mV

Table 2.
DGM QA Target List
FORA IAR Range 44 DGM QA Resurvey Report
Former Fort Ord,
Monterey County, California

IAR Area Designation	Target Name	Easting (US Survey Feet)	Northing (US Survey Feet)	Target Response Value (Sum)	Units
R44	IAR_R44-C2A8G7-071	5743121.00	2122683.50	415.8	mV

Note: Survey Coordinates Presented in NAD83 California Zone 4 in US Survey Feet

Table 3.
 QA Intrusive Investigation Results
 FORA IAR Range 44 DGM QA Resurvey Report
 Former Fort Ord,
 Monterey County, California

Project: FORA QA2 Resurvey			Survey Area: IAR Range 44			Field Team: Luis Fierro, Gern Date:					
NOTE 1 - Anomaly Type: U = UXO, F = Frag, MD = Munitions Debris, S = Scrap, A = Small Arms Ammunition, NC = No Contact, O = Other											
NOTE 2 - Target Azimuth: N = North, NW = Northwest, W = West, SW = Southwest, S = South, SE = Southeast, E = East, NE = Northeast											
NOTE 3 - Target Inclination: NU = Vertical Nose Up, ND = Vertical Nose Down, INU = Inclined Nose Up, IND = Inclined Nose Down, H = Horizontal											
Target Info			Reacquisition Survey		Dig Results						
Target Name	Instrument Response	Units	Channel	Response (mV)	Anomaly Type (note 1)	Approx. Weight (Lbs.)	Azimuth of nose (note 2)	Inclination of nose (note 3)	Depth to top (Inches)	Digital Photo Number	Comments
IAR_R44-C2A8C5-051	308.6	Slack mV	Ch3	400.0	S	0.5	E	H	6.0		Scrap Metal
IAR_R44-C2A8C5-052	392.0	Slack mV	Ch3	800.0	U	0.5	E	H	6.0		M 73 Subcal
IAR_R44-C2A8C5-053	355.9	Slack mV	Ch3	600.0	MD	0.5	S	ND	3.0		M 73 Subcal
IAR_R44-C2A8C5-054	329.0	Slack mV	Ch3	400.0	S	0.5	E	S	6.0		Scrap Metal
IAR_R44-C2A8C5-055	1012.5	Slack mV	Ch3	400.0	S	0.3	E	S	8.0		Scrap Metal
IAR_R44-C2A8G7-056	355.9	Slack mV	Ch3	460.0	S	0.3	N	H	6.0		Aluminum slag
IAR_R44-C2A8G7-057	484.4	Slack mV	Ch3	540.0	MD	0.5	N	H	3.0		Rocket parts
IAR_R44-C2A8G7-058	322.9	Slack mV	Ch3	280.0	S	0.3	S	H	4.0		Scrap metal
IAR_R44-C2A8G7-059	405.2	Slack mV	Ch3	380.0	MD	0.5	S	H	6.0		Rocket Body
IAR_R44-C2A8G7-060	351.9	Slack mV	Ch3	700.0	MD	0.3	W	H	6.0		Rocket Parts
IAR_R44-C2A8G7-061	328.8	Slack mV	Ch3	2000.0	S	0.3	W	H	3.0		Scrap Metal
IAR_R44-C2A8G7-062	526.5	Slack mV	Ch3	1200.0	MD	0.5	E	H	8.0		Rocket Parts
IAR_R44-C2A8G7-063	415.1	Slack mV	Ch3	800.0	S	0.5	S	H	3.0		Scrap Metal
IAR_R44-C2A8G7-064	390.1	Slack mV	Ch3	2000.0	MD	1.5	S	H	6.0		Rocket Parts
IAR_R44-C2A8G7-065	1164.1	Slack mV	Ch3	1300.0	MD	1.0	W	H	8.0		Rocket Parts
IAR_R44-C2A8G7-066	538.5	Slack mV	Ch3	800.0	S	0.5	S	H	7.0		Scrap Metal
IAR_R44-C2A8G7-067	516.0	Slack mV	Ch3	400.0	MD	1.0	E	H	6.0		Rocket Parts
IAR_R44-C2A8G7-068	770.0	Slack mV	Ch3	800.0	MD	0.5	S	H	3.0		Rocket Parts
IAR_R44-C2A8G7-069	460.8	Slack mV	Ch3	700.0	S	0.3	E	H	4.0		Scrap metal
IAR_R44-C2A8G7-070	387.8	Slack mV	Ch3	800.0	S	0.3	S	H	6.0		Scrap metal
IAR_R44-C2A8G7-071	415.8	Slack mV	Ch3	1900.0	S	0.3	W	H	6.0		Scrap metal

Table 3.
 QA Intrusive Investigation Results
 FORA IAR Range 44 DGM QA Resurvey Report
 Former Fort Ord,
 Monterey County, California




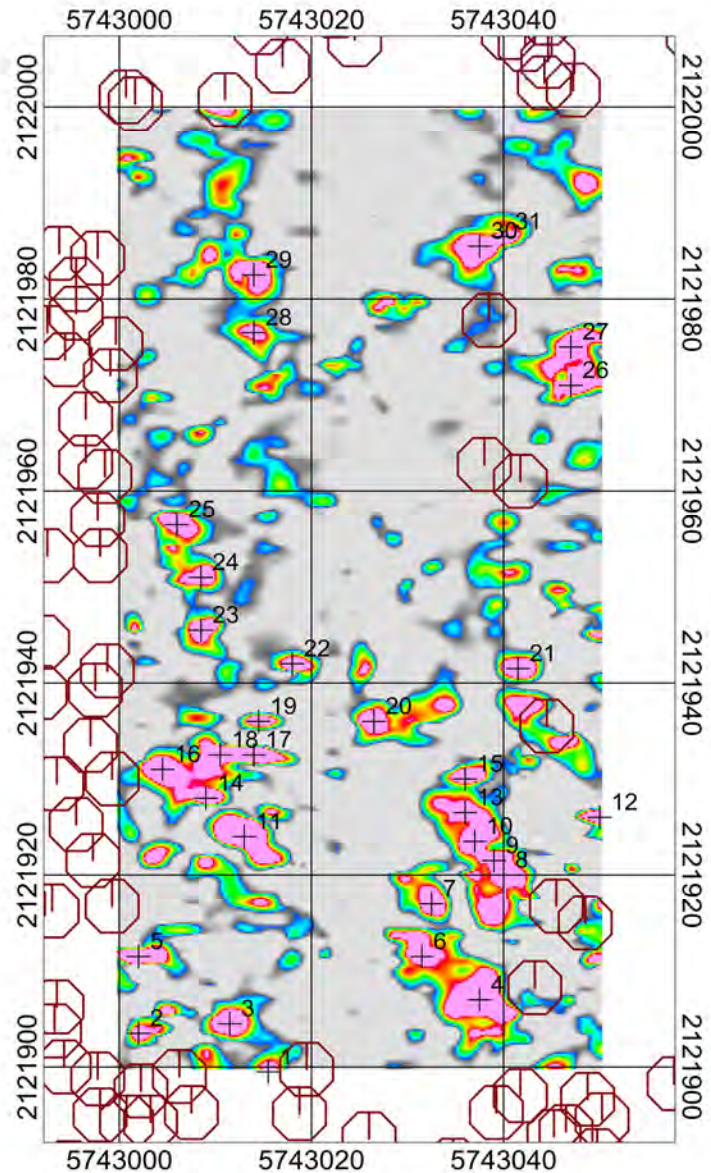
Target Info			Reacquisition Survey		Dig Results						
Target Name	Instrument Response	Units	Channel	Response (mV)	Anomaly Type (note 1)	Approx. Weight (Lbs.)	Azimuth of nose (note 2)	Inclination of nose (note 3)	Depth to top (Inches)	Digital Photo Number	Comments
IAR_R44-B2J8J6-024	328.0	Stack mV	Ch3	1200.0	F	0.8	N	H	6.0		M 73 Subcal x 2 and Fuze part
IAR_R44-B2J8J6-025	420.0	Stack mV	Ch3	700.0	F/MD	0.5	W	H	1.0		40 mm practice and frag
IAR_R44-B2J8J6-026	896.6	Stack mV	Ch3	490.0	F	0.2	NE	H	4.0		
IAR_R44-B2J8J6-027	381.7	Stack mV	Ch3	620.0	F	0.5	N	H	6.0		Three pieces of projectile frag
IAR_R44-B2J8J6-028	300.6	Stack mV	Ch3	220.0	MD	0.8	N	H	8.0		M 48/57 Fuze expended
IAR_R44-B2J8J6-029	479.2	Stack mV	Ch3	1100.0	MD/F	0.5	W	ND	6.0		m 73 Subcal and Frag
IAR_R44-B2J8J6-030	414.0	Stack mV	Ch3	680.0	MD	0.5	W	ND	4.0		M 73 Subcal
IAR_R44-B2J8J6-031	454.6	Stack mV	Ch3	750.0	MD	0.3	NW	H	3.0		Rocket Motor
IAR_R44-C2A8B7-032	352.1	Stack mV	Ch3	900.0	MD	0.3	W	ND	4.0		M 73 Subcal Body
IAR_R44-C2A8B7-033	802.2	Stack mV	Ch3	300.0	MD	0.3	NE	H	3.0		LAW Rocket Parts
IAR_R44-C2A8B7-034	328.0	Stack mV	Ch3	190.0	MD	0.3	N	H	2.0		M 73 Subcal Body
IAR_R44-C2A8B7-035	340.3	Stack mV	Ch3	4000.0	MD/A	0.4	N	H	6.0		M 73 Subcal body and .50 cal case
IAR_R44-C2A8B7-036	396.3	Stack mV	Ch3	280.0	F	0.1	N	H	2.0		Frag
IAR_R44-C2A8B7-037	445.8	Stack mV	Ch3	800.0	A/F	0.1	SW	H	1.0		Small Arms
IAR_R44-C2A8B7-038	590.9	Stack mV	Ch3	2700.0	MD	0.4	NE	ND	5.0		M 73 Subcal Body
IAR_R44-C2A8B7-039	305.3	Stack mV	Ch3	600.0	S	0.4	W	H	7.0		Aluminum slag
IAR_R44-C2A8B7-040	391.2	Stack mV	Ch3	630.0	MD/A	0.3	SW	H	5.0		.50 Cal projectiles and a piece of frag
IAR_R44-C2A8B7-041	369.4	Stack mV	Ch3	300.0	A	0.1	NE	H	2.0		.50 Cal case
IAR_R44-C2A8B7-042	548.8	Stack mV	Ch3	2800.0	MD	0.4	NE	ND	4.0		M 73 Subcal Body
IAR_R44-C2A8B7-043	311.2	Stack mV	Ch3	210.0	S	0.2	N	H	1.0		Aluminum slag
IAR_R44-C2A8B7-044	429.0	Stack mV	Ch3	510.0	MD	0.5	W	H	4.0		LAW Shape charge cone and fins
IAR_R44-C2A8B7-045	686.7	Stack mV	Ch3	400.0	A	0.1	NE	H	1.0		2 X .50 cal cases
IAR_R44-C2A8C5-046	563.2	Stack mV	Ch3	500.0	UXO	1.0	S	ND	6.0		M73 Subcal
IAR_R44-C2A8C5-047	304.8	Stack mV	Ch3	760.0	MD	0.5	E	S	6.0		M 73 Subcal
IAR_R44-C2A8C5-048	355.4	Stack mV	Ch3	1600.0	UXO/MD	1.5	N	ND	4.0		M73 Subcal X 3 1-UXO
IAR_R44-C2A8C5-049	304.5	Stack mV	Ch3	400.0	S	0.1	E	H			Scrap metal
IAR_R44-C2A8C5-050	378.4	Stack mV	Ch3	300.0	U	0.5	S	H	4.0		M73 Subcal and Moter Fins

Table 3.
 QA Intrusive Investigation Results
 FORA IAR Range 44 DGM QA Resurvey Report
 Former Fort Ord,
 Monterey County, California

Project Name:	FORA QA2 Resurvey	UXO Contractor	LFR / Weston	Equipment	Serial Number						
Project Location:	Monterey County, CA	Geophysical Contractor:	Weston	EM61	Weston						
Coordinate System:	NAD83 CS83 Zone 4 (US survey feet)	Project Geophysicist:	Matthew Gifford	Allegro	Weston						
Survey Area:	IAR Range 44	QC Geophysicist:		Magnetometer	Schonstedt						
Field Team:	Luis Fierro, German Pena	Regulatory POC:		All Metals	White XLT						
Date: May 2013		QA Contractor:	InDepth / ERRG	Positioning	Trimble RTK						
Team Leader Signature:	German Pena	QA Geophysicist:	Brian Hecker		NA						
Project:	FORA QA2 Resurvey	Survey Area:	IAR Range 44	Field Team:	Luis Fierro, Gern Date:						
NOTE 1 - Anomaly Type: U = UXO, F = Frag, MD = Munitions Debris, S = Scrap, A = Small Arms Ammunition, NC = No Contact, O = Other											
NOTE 2 - Target Azimuth: N = North, NW = Northwest, W = West, SW = Southwest, S = South, SE = Southeast, E = East, NE = Northeast											
NOTE 3 -Target Inclination: NU = Vertical Nose Up, ND = Vertical Nose Down, INU = Inclined Nose Up, IND = Inclined Nose Down, H = Horizontal											
Target Info			Reacquisition Survey		Dig Results						
Target Name	Instrument Response	Units	Channel	Response (mV)	Anomaly Type (note 1)	Approx. Weight (Lbs.)	Azimuth of nose (note 2)	Inclination of nose (note 3)	Depth to top (inches)	Digital Photo Number	Comments
IAR_R44-B2J8J6-001	338.4	Stack mV	Ch3	350.0	U	0.4	E	ND	3.0		M 73 Subcal
IAR_R44-B2J8J6-002	331.5	Stack mV	Ch3	420.0	U/MD	0.9	NE	H	4.0		M 73 Subcal X 2; 1 UXO Subcal
IAR_R44-B2J8J6-003	417.9	Stack mV	Ch3	220.0	MD	0.2	N	H	3.0		Slug for HEAT round
IAR_R44-B2J8J6-004	447.4	Stack mV	Ch3	2100.0	F	0.2	N	H	3.0		
IAR_R44-B2J8J6-005	534.5	Stack mV	Ch3	880.0	MD	0.4	E	ND	4.0		M 73 Subcal
IAR_R44-B2J8J6-006	356.1	Stack mV	Ch3	800.0	F	0.5	W	H	8.0		Four pieces of projectile frag
IAR_R44-B2J8J6-007	312.6	Stack mV	Ch3	360.0	F	0.3	E	H	6.0		
IAR_R44-B2J8J6-008	720.1	Stack mV	Ch3	1470.0	F	0.5	W	H	6.0		Same as dig 27 Frag/Pic 10
IAR_R44-B2J8J6-009	421.6	Stack mV	Ch3	250.0	F	0.4	W	H	8.0		Same as dig 27 Frag/Pic 10
IAR_R44-B2J8J6-010	331.8	Stack mV	Ch3	250.0	F	0.5	W	H	10.0		Same as dig 27 Frag/Pic 10
IAR_R44-B2J8J6-011	1058.9	Stack mV	Ch3	1500.0	MD	1.0	N	H	8.0		M 73 Subcal 1 MD
IAR_R44-B2J8J6-012	393.4	Stack mV	Ch3	1800.0	F	0.8	NE	H	4.0		Four pieces of projectile frag
IAR_R44-B2J8J6-013	315.3	Stack mV	Ch3	1200.0	MD	0.3	N	H	6.0		40 mm Practice MD
IAR_R44-B2J8J6-014	597.6	Stack mV	Ch3	380.0	F	0.2	W	H	4.0		Pic 10
IAR_R44-B2J8J6-015	437.7	Stack mV	Ch3	390.0	F	0.1	N	H	1.0		
IAR_R44-B2J8J6-016	558.0	Stack mV	Ch3	1700.0	MD	0.2	s	ND	4.0		Rocket motor from a LAW
IAR_R44-B2J8J6-017	1105.5	Stack mV	Ch3	350.0	MD	0.4	S	H	6.0		M 73 Subcal
IAR_R44-B2J8J6-018	613.5	Stack mV	Ch3	400.0	MD	0.5	S	H	4.0		MD
IAR_R44-B2J8J6-019	394.9	Stack mV	Ch3	400.0	MD	0.1	W	H	1.0		LAW rocket motor parts
IAR_R44-B2J8J6-020	416.9	Stack mV	Ch3	850.0	F	0.3	NE	H	5.0		
IAR_R44-B2J8J6-021	395.1	Stack mV	Ch3	460.0	MD	0.3	N	ND	4.0		40 mm Practice MD
IAR_R44-B2J8J6-022	393.5	Stack mV	Ch3	1700.0	MD	0.3	W	H	6.0		40 mm Practice MD
IAR_R44-B2J8J6-023	428.1	Stack mV	Ch3	1000.0	F	0.3	N	H	6.0		Law rocket parts and one piece of frag



EM61 Stack Response
milliVolts (mV)

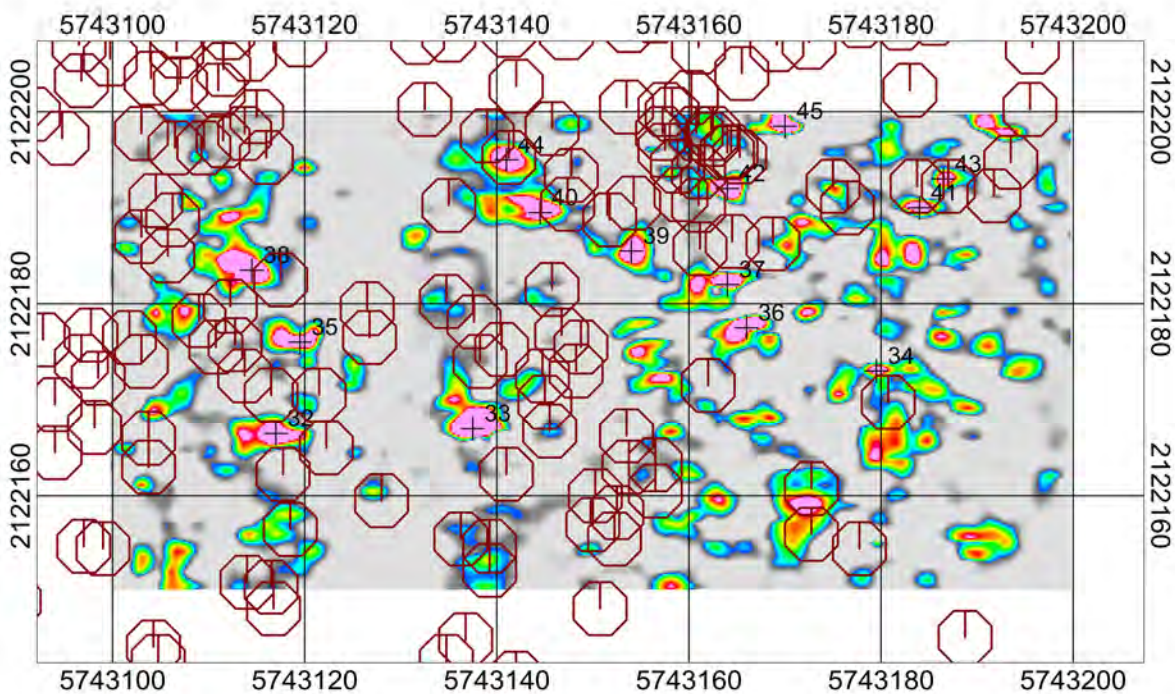


Scale 1:240
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US survey foot
NAD83 / California CS83 zone 4

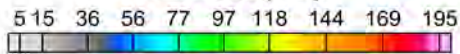
Legend

- QA DGM Target
- QA Polygon Boundary
- Weston DGM Target

FORA IAR Range 44
Figure 1 QA Resurvey Range 44 Grid B2J8J6
EM61 Machine-Towed Array Data Collected 4/16/2013 InDepth Corporation
Brian Hecker



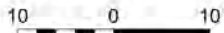
EM61 Stack Response
milliVolts (mV)



Legend

-  QA DGM Target
-  QA Polygon Boundary
-  Weston DGM Target

Scale 1:240



US survey foot

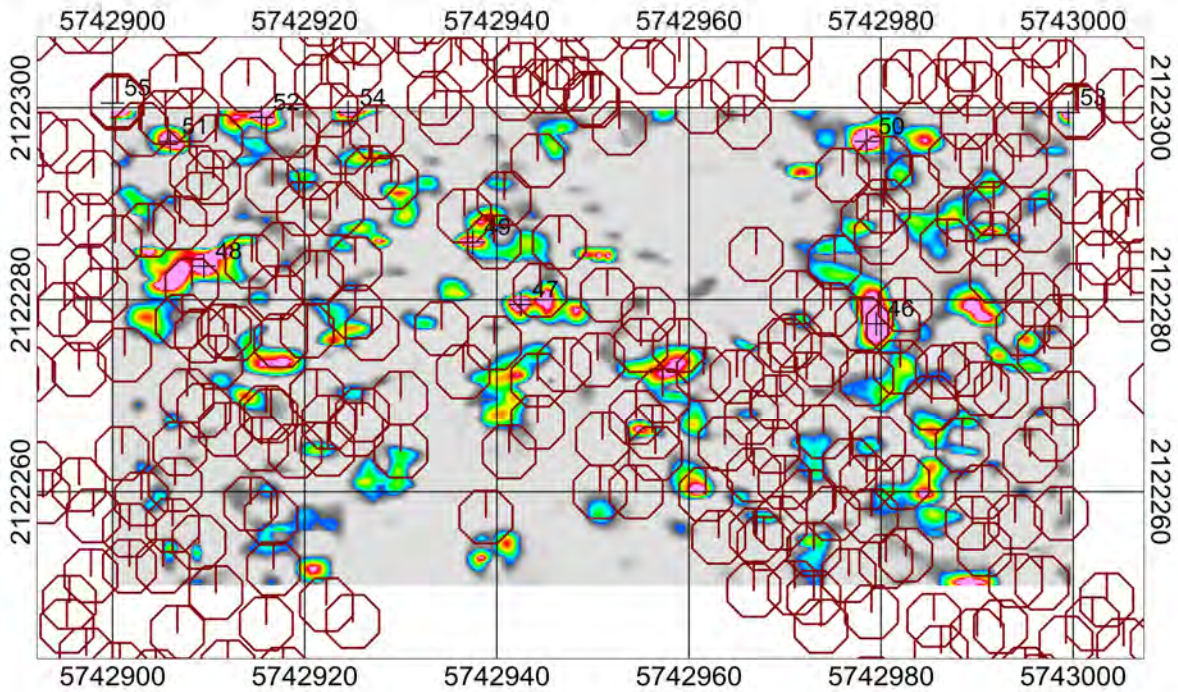
NAD83 / California CS83 zone 4

FORA IAR Range 44

Figure 2
QA Resurvey Range 44 Grid C2A8B7

EM61 Machine-Towed Array
Data Collected 4/16/2013
InDepth Corporation




Brian Hecker



EM61 Stack Response
milliVolts (mV)



Legend

-  QA DGM Target
-  QA Polygon Boundary
-  Weston DGM Target

Scale 1:240



US survey foot

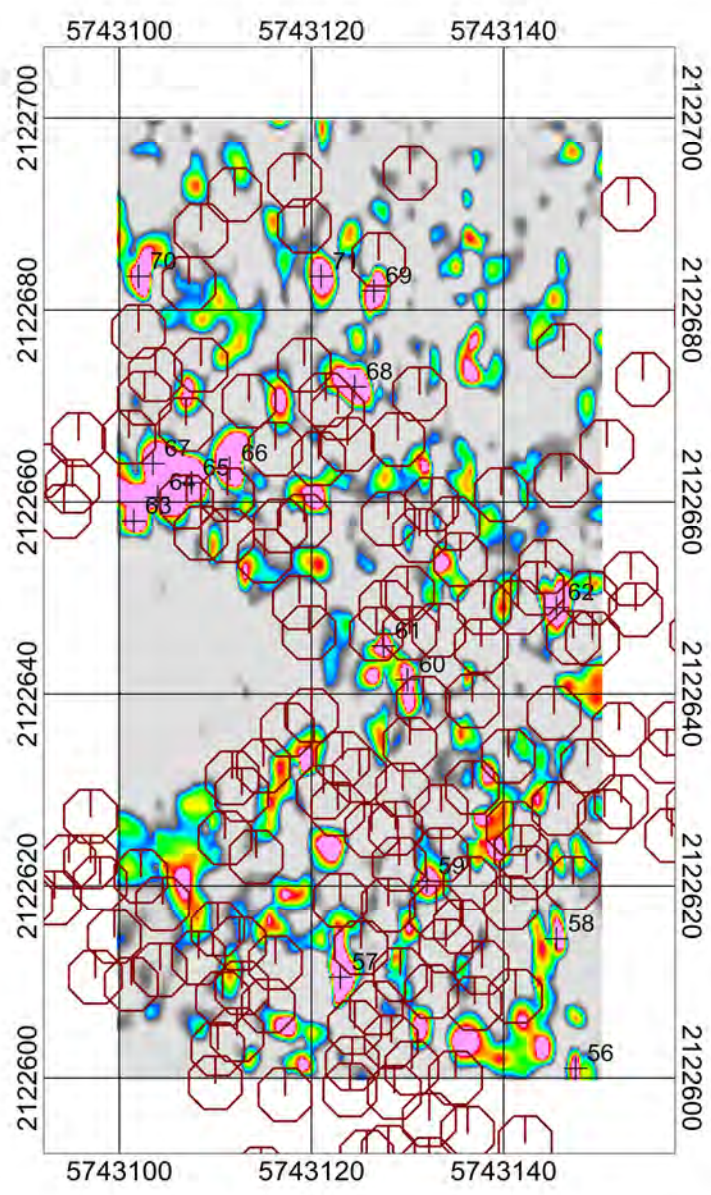
NAD83 / California CS83 zone 4

FORA IAR Range 44

Figure 3
QA Resurvey Range 44 Grid C2A8C5

EM61 Machine-Towed Array
Data Collected 4/16/2013
InDepth Corporation




Brian Hecker



EM61 Stack Response
milliVolts (mV)



Legend

-  QA DGM Target
-  QA Polygon Boundary
-  Weston DGM Target

Scale 1:240
10 0 10
US survey foot
NAD83 / California CS83 zone 4

FORA IAR Range 44
Figure 4 QA Resurvey Range 44 Grid C2A8G7
EM61 Machine-Towed Array Data Collected 4/16/2013 InDepth Corporation
Brian Hecker



December 13, 2013

Mr. James Rossi
ERRG, Incorporated
185 Mason Circle, Ste A
Concord, California 94520

**Subject: Final IAR, MRA, Range 47 SCA FORA DGM QA Supplemental
Resurvey Report, Former Fort Ord, Monterey County, California**

Dear Mr. Rossi:

InDepth Corporation (InDepth) is pleased to present this letter report outlining the activities completed and resultant findings of the digital geophysical mapping (DGM) quality assurance (QA) activities associated with the data review and QA resurvey results of the Interim Action Report (IAR), Munitions Response Area (MRA) Range 47 Special Case Area (SCA) Investigation performed by Weston Solutions, Inc. (Weston) at the former Fort Ord. This review was performed using the data available within the February 12, 2013 data transmittal provided by Linda Temple of Weston Solutions, Inc. and DGM QA resurvey data obtained on February 20, 2013.

Under contract to ERRG, Inc. (ERRG), InDepth performed a review of the Range 47 SCA supplemental DGM data. InDepth reviewed approximately 10% of the production DGM data obtained by Weston throughout Range 47 SCA supplemental investigation areas. These data were reviewed for adherence to the data quality standards based on the accepted work plan. This review included a review of the daily quality control checks, the data spacing, and the cross track line spacing. Data were provided by Weston for 1.6 acres of the investigation areas identified covering a total area of approximately 1.6 acres in Range 47 SCA. InDepth performed a DGM QA resurvey of 0.1 acres, representing approximately 6.3% of the area investigated by Weston, Inc. InDepth provided the geophysical results and target lists to ERRG, Inc who performed the intrusive investigation in April, 2013. ERRG provided the Intrusive investigation results to InDepth on April 11, 2013. InDepth's findings indicated that the data were of sufficient quality to adequately support the Phase II IAR MRA RI within the areas investigated.

This letter report contains the findings of our DGM QA Resurvey supported by the enclosed figures.

DGM QA DATA EVALUATION PROCEDURES

The DGM data evaluation included a review of the daily quality control data and a review for 10% of the grid data. At the request of FORA the specific parameters evaluated within each data set included evaluation of the data separation, lane spacing, and gap coverage. All data were evaluated using industry standard QA/QC modules within Geosoft Oasis Montaj v7.1 UX-Detect. The following is a summary of the results for the grids evaluated.

RANGE 47 SCA DGM DATA EVALUATION RESULTS

Data evaluation was performed for the IAR, Range 47 SCA DGM data and results. Data quality evaluation indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified within the work plan during DGM of these areas. Data evaluation indicated that the data within each of these grids met the data quality standards within the work plan.

Data evaluation indicated that along track spacing of the data points within these data sets meets the 0.5 foot data separation standard indicated within the QAPP and work plan. Evaluation of transect spacing for these data sets indicated that all of the areas investigated met the data quality objectives in areas without obstructions. Areas with transect spacing gaps caused by cultural features or other obstructions were investigated by using intrusive teams to perform detector aided real-time investigations throughout the data gap locations.

Evaluation of these DGM data for Range 47 SCA used different criteria based on the proposed land usage. The DGM QA Resurvey data for Range 47 SCA were evaluated using the 50 mV anomaly selection criteria, on the summation data, based on the detection threshold for a 37mm projectile at a depth of 12 inches below ground surface.

RANGE 47 SCA DGM QA RESURVEY

Range 47 SCA Grid C2A6D9 QA Resurvey Results. The QA resurvey in the Range 47 SCA QA grid (C2A6D9) comprised a rectangular polygon approximately 106 ft by 33 ft resulting in 3,421 ft² of DGM QA resurvey, as shown on Figure 1. The QA DGM resurvey resulted in a site characterized by background readings and 3 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. None of the 3 DGM QA targets was located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation.

Intrusive investigation of these 3 targets resulted in zero no-contacts (false-positives), one piece of munitions related debris or frag and 2 small metallic items, as shown in Table 3. Since no items, greater than the size or mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Range 47 SCA Grid C2A6D9 QA Resurvey meet the work plan QA objectives.

Range 47 SCA Grid B2J6I6 QA Resurvey Results. The QA resurvey in the Range 47 SCA QA grid (B2J6I6) comprised a rectangular polygon approximately 100 ft by 42 ft resulting in approximately 4,214 ft² of DGM QA resurvey, as shown on Figure 2. The QA DGM resurvey resulted in a site characterized by background readings and 7 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. None of the 7 DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 7 targets resulted in four false-positives, two pieces of munitions related debris or frag and one small metallic item, as shown in Table 3. Since no items, greater than the size or mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Range 47 SCA Grid B2J6I6 QA Resurvey meet the work plan QA objectives.

RANGE 47 SCA RI/FS QA SUPPLEMENTAL RESURVEY DGM DATA EVALUATION RESULTS SUMMARY

Evaluation of the DGM data obtained during the supplemental QA resurvey indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified in the work plan. Evaluation of these data indicated that the data met, or exceeded the data density along line and transect spacing requirements as indicated within the QAPP and work plan.

Intrusive investigation for all of these 10 targets resulted in four false-positives, three items of MEC related debris or frag and three small metallic items were associated various pieces of scrap metal and conductive soil conditions, as shown in Table 3. The high number of false positives identified within these data is interpreted as the result of terrain issues and conductive soil conditions. Since none of the MEC related debris items recovered during the intrusive activities had a size or mass greater than the mass of a 37mm projectile; therefore, the results of the Range 47 SCA supplemental QA Resurvey indicate that the Range 47 SCA DGM data and results meet the work plan QA objectives.

CONCLUSIONS AND RECOMMENDATIONS

The results of the Range 47 SCA DGM QA data evaluation indicate that the data reviewed meet the standards for quality and along track and cross track data spacing. However, some data gaps resulting from cultural features were unavoidable but well within the acceptance criteria identified in the QAPP. In accordance with the work plan these data gaps were investigated by Weston Solutions, Inc. by using detector aided real-time investigation techniques.

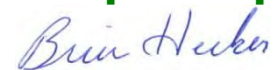
Within the Range 47 SCA DGM QA Resurvey 10 QA targets were identified, none of which were located within 3.0 feet of an existing Weston DGM target. Seven of these targets resulted in the discovery of a munitions debris related item, however, none of the items exhibited a size or mass greater than the mass of a 37mm projectile, therefore, the results of the Range 47 SCA QA Resurvey indicates that the Weston Range 47 SCA DGM data and results meet the work plan QA objectives.

STANDARD OF CARE AND WARRANTY

The scope of InDepth's services for the project was to apply appropriate geophysical data processing methods to evaluate the existing geophysical data for adherence to the parameters requested by our client. It should be recognized that the effectiveness and accuracy of the geophysical methods employed by InDepth are subject to the limitations imposed by surface and subsurface conditions at the project site. The geophysical services performed by InDepth were conducted using best-practice in a manner consistent with that level of skill ordinarily exercised by members of the profession currently employing similar methods. InDepth makes no other warranty, with respect to the performance of services or products described in this letter report, expressed or implied.

InDepth appreciates the opportunity to assist ERRG with this project. If you have any questions regarding the content this letter report or results of the investigation, feel free to contact me any time at (707) 888-6605.

Respectfully,
InDepth Corporation



Brian W. Hecker
Senior Geophysicist, G.P. 991

Enclosures: QA Resurvey Investigation Summary and Target Tables
QA Resurvey Data Evaluation Figures

cc: file

Table 1.
 DGM QA Resurvey Investigation Summary
 FORA IAR MRA Range 47 SCA DGM QA Supplemental Resurvey Report
 Former Fort Ord,
 Monterey County, California

Geophysical Operation	IAR Area Designation	FORA Grid Designation	Total Area Investigated (sqft)	Number of Targets
QA Resurvey	R47	C2A6D9	3,271	3
QA Resurvey	R47	B2J6I6	4,214	7

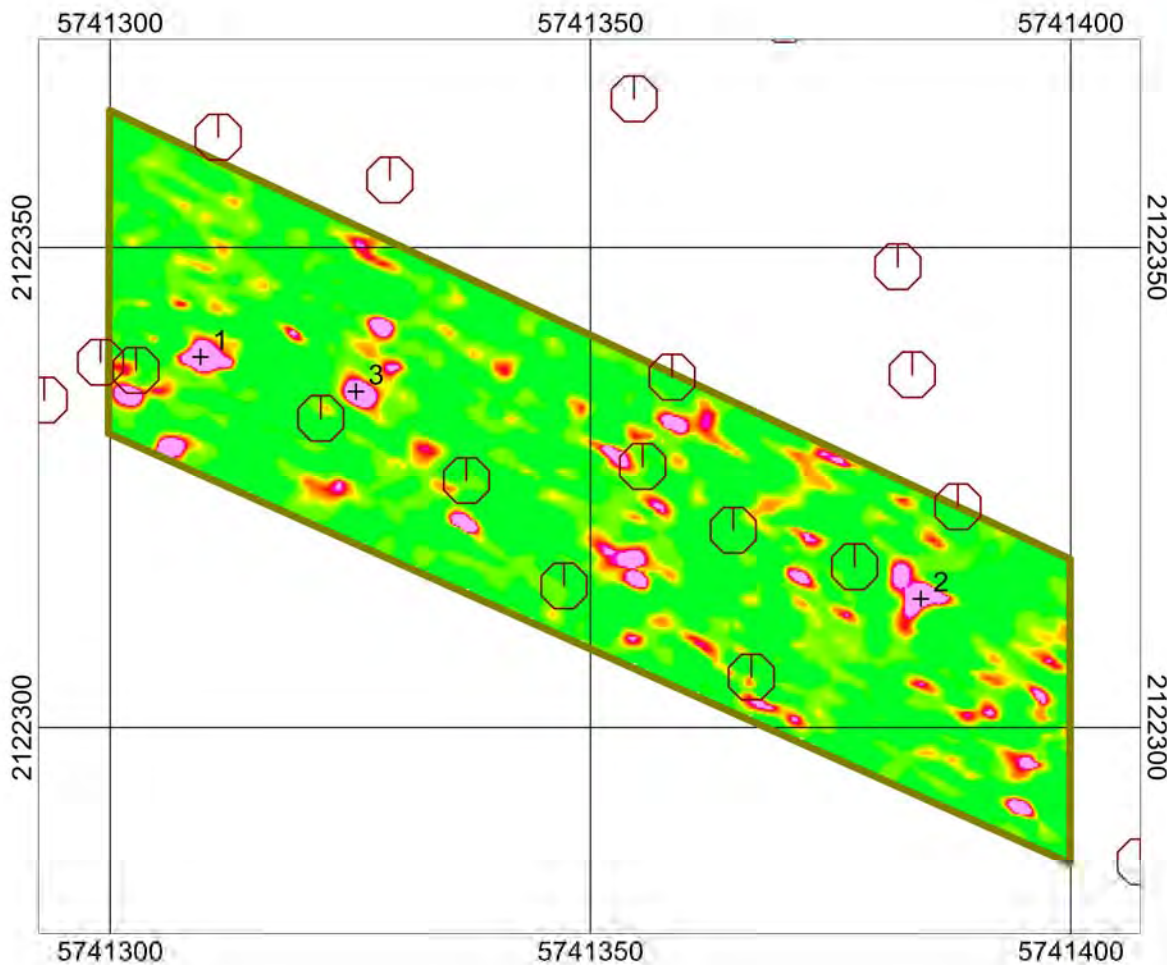
Table 2.
DGM QA Target List
FORA IAR MRA Range 47 SCA DGM QA Supplemental Resurvey Report
Former Fort Ord,
Monterey County, California

IAR Area Designation	Target Name	Easting (US Survey Feet)	Northing (US Survey Feet)	Target Response Value (Sum)	Units
R47	IAR_R47_C2A6D9_001	5741309.40	2122338.60	48.3	mV
R47	IAR_R47_C2A6D9_002	5741384.40	2122313.40	46.4	mV
R47	IAR_R47_C2A6D9_003	5741325.60	2122335.00	44.9	mV
R47	IAR_R47_B2J6I6_001	5741038.80	2121883.20	98.6	mV
R47	IAR_R47_B2J6I6_002	5741065.80	2121891.00	83.3	mV
R47	IAR_R47_B2J6I6_003	5741048.40	2121864.00	61.2	mV
R47	IAR_R47_B2J6I6_004	5741040.00	2121866.40	58.1	mV
R47	IAR_R47_B2J6I6_005	5741063.40	2121807.60	54.6	mV
R47	IAR_R47_B2J6I6_006	5741055.00	2121810.60	52.3	mV
R47	IAR_R47_B2J6I6_007	5741041.80	2121843.60	49.5	mV

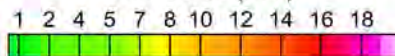
Note: Survey Coordinates Presented in NAD83 California Zone 4 in US Survey Feet

Table 3.
 QA Intrusive Investigation Results
 FORA IAR MRA Range 47 SCA DGM QA Supplemental Resurvey Report
 Former Fort Ord,
 Monterey County, California



Project Name:	FORA QA2 Resurvey	UXO Contractor:	LFR / Weston	Equipment:	Serial Number						
Project Location:	Monterey County, CA	Geophysical Contractor:	Weston	EM61	Weston HW438						
Coordinate System:	NAD83 CS83 Zone 4 (US survey feet)	Project Geophysicist:	Matthew Gifford	Allegro	Weston 77728						
Survey Area:	IAR Range 47	QC Geophysicist:		Magnetometer	Schonstedt						
Field Team:	James Rossi	Regulatory POC:		All Metals	White XLT						
Date:	September 2010	QA Contractor:	InDepth / ERRG	Positioning	Trimble RTK						
Team Leader Signature:		QA Geophysicist:	Brian Hecker		NA						
Project:	FORA QA2 Resurvey	Survey Area:	IAR Range 47	Field Team:	2 Date: 04/11/13						
NOTE 1 - Anomaly Type: U = UXO, F = Frag, MD = Munitions Debris, S = Scrap, A = Small Arms Ammunition, NC = No Contact, O = Other											
NOTE 2 - Target Azimuth: N = North, NW = Northwest, W = West, SW = Southwest, S = South, SE = Southeast, E = East, NE = Northeast											
NOTE 3 - Target Inclination: NU = Vertical Nose Up, ND = Vertical Nose Down, INU = Inclined Nose Up, IND = Inclined Nose Down, H = Horizontal											
Target Info			Reacquisition Survey		Dig Results						
Target Name	Instrument Response	Units	Channel	Response (mV)	Anomaly Type (note 1)	Approx. Weight (Lbs.)	Azimuth of nose (note 2)	Inclination of nose (note 3)	Depth to top (inches)	Digital Photo Number	Comments
IAR_R47_C2A6D9_001	48.3	Stack mV	Ch3	50.0	O	0.1	SW	IND	2"	R47 C2A6D9001	Aluminum slag 1"x3"
IAR_R47_C2A6D9_002	46.4	Stack mV	Ch3	103.0	F	0.1	NE	INU	1"	R47 C2A6D9002	Frag from projectile 1/2"x3"
IAR_R47_C2A6D9_003	44.9	Stack mV	Ch3	102.0	O	0.1	NW	IND	1"	R47 C2A6D9003	Aluminum 1"x2"
IAR_R47_B2J6I6_001	98.6	Stack mV	Ch3	235.0	MD	0.2	SW	NU	3"	R47 B2J6I6001	Small piece of 40mm Genade Aluminum Body
IAR_R47_B2J6I6_002	83.3	Stack mV	Ch3	0.0	NC	N/A	N/A	N/A	N/A	R47 B2J6I6002	No Contact detected
IAR_R47_B2J6I6_003	61.2	Stack mV	Ch3	0.0	NC	N/A	N/A	N/A	N/A	R47 B2J6I6003	No Contact detected
IAR_R47_B2J6I6_004	58.1	Stack mV	Ch3	0.0	NC	N/A	N/A	N/A	N/A	R47 B2J6I6004	No Contact detected
IAR_R47_B2J6I6_005	54.6	Stack mV	Ch3	120.0	O	N/A	N/A	N/A	2"	R47 B2J6I6005	Target detected, broke up after first scoop of soil
IAR_R47_B2J6I6_006	52.3	Stack mV	Ch3	0.0	NC	N/A	N/A	N/A	N/A	R47 B2J6I6006	No Contact detected
IAR_R47_B2J6I6_007	49.5	Stack mV	Ch3	210.0	MD	0.1	N	NU	1"	R47 B@J6I6007	14.5 Sub Cal made of lead



EM61 Stack Response
millivolts (mV)



Legend

- +** QA DGM Target
-  QA Polygon Boundary
-  Weston DGM Target



Scale 1:240



US survey foot

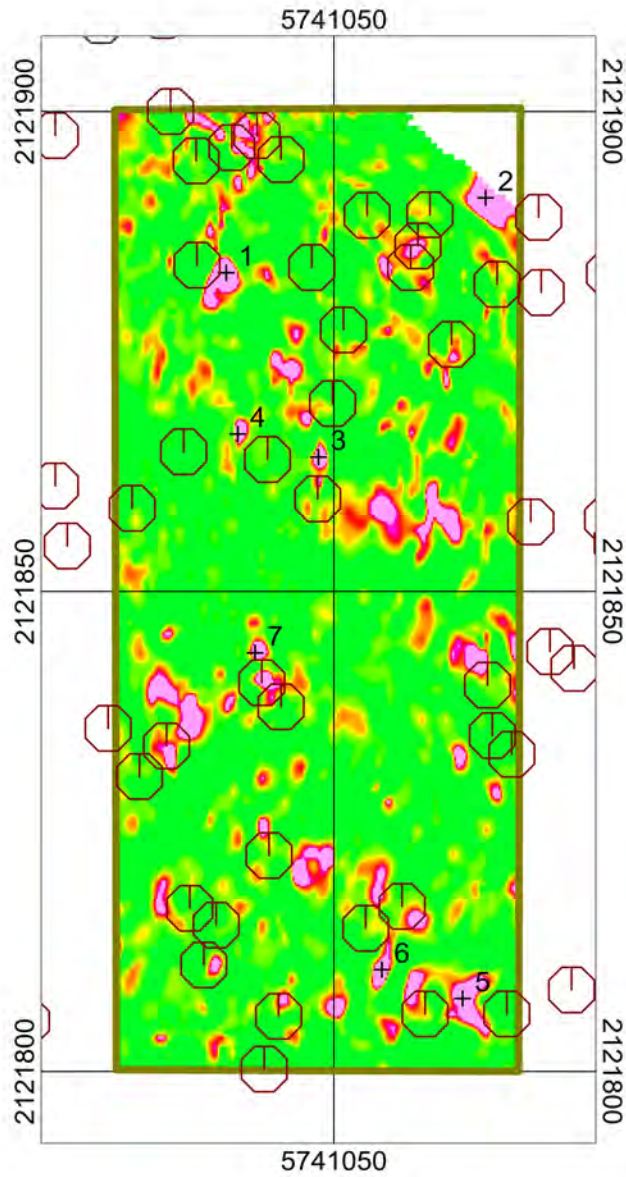
NAD83 / California CS83 zone 4

FORA IAR Range 47

Figure 1
QA Resurvey Range 47 Grid C2A6D9

EM61 Machine-Towed Array
Data Collected 2/12/2013
InDepth Corporation




Brian Hecker



EM61 Stack Response
millivolts (mV)



Legend

-  QA DGM Target
-  QA Polygon Boundary
-  Weston DGM Target

Scale 1:240
10 0 10
US survey foot
NAD83 / California CS83 zone 4

FORA IAR Range 47
Figure 2 QA Resurvey Range 47 Grid B2J616
EM61 Machine-Towed Array Data Collected 2/12/2013 InDepth Corporation
Brian Hecker

Appendix C. ERRG Blind Seeding SOP

QA/QC Blind Seeding

1. Purpose

1.1. OVERVIEW OF UXO SOPS

The series of Unexploded Ordnance (UXO) Standard Operation Procedures (SOPs) provide direction for and are applicable to the Munitions and Explosives of Concern (MEC) services provided by Engineering/Remediation Resources Group, Inc. (ERRG) and cover the breadth of the performance and verification of ERRG UXO services.

These policies and procedures are not all inclusive nor are they applicable in all situations. This SOP is not a stand-alone document and is to be used together with Work Plans (WP), other ERRG SOPs, the ERRG Accident Prevention Plan (APP), applicable Federal, State, local regulations, and contract restrictions and guidance.

1.2. PURPOSE OF THIS SOP

The QA Blind Seed Program is a QA process in which QA personnel strategically emplace inert UXO items or simulant items within the project production area to test and validate the MEC operations detection process. The validity of blind seeding as a QA tool is based on assumptions that seed items will accurately mimic actual MEC items expected to be found in the production area. If the UXO team detects the blind seeds, QA personnel determine the MEC operations procedures are working as planned. If the UXO teams fail to find a blind seed, the detection process is either inadequate or being implemented inadequately. Blind seeding should be planned, implemented, a documented and controlled by the ERRG QA Manager.

2. Scope

This procedure applies to all instances where the responsibilities of ERRG QA Specialist are charged with the emplacement of QA or QC blind seeding on MEC Intrusive projects.

3. References

- ERRG Health and Safety Program;
- OSHA, 29 CFR 1910, Occupational Safety and Health Standards;
- Site Specific Health and Safety Plan;
- Applicable sections of EPA, 40 CFR Parts 260 to 299, Protection of Environment;
- Applicable sections of DOT, 49 CFR Parts 100 to 199, Transportation;
- DOD 4145.26 M, Contractors' Safety Manual for Ammunition and Explosives;
- DOD 6055.9-STD, DOD Ammunition and Explosives Safety Standards;
- DOD 4160.21-M, Defense Reutilization and Marketing Manual;

QA/QC Blind Seeding

- TM 9-1300-200, Ammunition General;
- TM 9-1300-214, Military Explosives;
- TM 60 Series Publications;

4. Definitions

Discarded Military Munitions (DMM). - Military munitions that have been abandoned without proper disposal or have been removed from storage in a military magazine or other storage area for the purpose of disposal. The term does not include unexploded ordnance, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed of consistent with applicable environmental laws and regulations. (10 U.S.C. §2710(e) (2)).

Exclusion Zone (EZ) – A zone in which unauthorized personnel are not allowed to be present during MEC clearance or disposal activities.

Fuzes. - Devices that initiate the detonation sequence in munitions. Fuzes are typically associated with munitions (e.g., mortars and bombs), but they are occasionally found separately. They may contain a charge large enough to cause injury. Magnetic and proximity fuzes are the most sensitive and, depending on other factors (e.g., fuze location and arming), greatly influence the likelihood of detonation. When separated from the munitions, a fuze may not look like an explosive munitions item.

The terms fuse and fuze mean different things. For this SOP, a fuze is a mechanical or electrical device with explosive or non-explosive components designed to initiate a train of fire or detonation in ordnance (e.g., hand grenade). A fuse is a cord of readily combustible material that can be lit at one end to carry a flame along the length of the fuse to detonate an explosive at the other end (e.g., firecracker).

Military Munitions. - Ammunition products and components produced for or used by the armed forces for national defense and security. The term military munitions include ammunition products or components under the control of the Department of Defense, the U.S. Coast Guard, the Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants; explosives; pyrotechnics; chemical and riot control agents; smokes and incendiaries; bulk explosives; chemical agents; chemical munitions; rockets; guided and ballistic missiles; bombs; warheads; mortar rounds; artillery ammunition; small arms ammunition; grenades; mines; torpedoes; depth charges; cluster munitions and dispensers; demolition charges; and devices and components thereof.

Military munitions do not include wholly inert items, improvised explosive devices, or nuclear weapons, nuclear devices, or nuclear components. However, military munitions do include non-nuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 U.S.C. §2011 et seq.) have been completed. (10 U.S.C. §101(e)(4))

QA/QC Blind Seeding

Minimum Separation Distance (MSD) – The minimum separation distance (MSD) is the minimum safe distance for non-essential personnel to be present during UXO Operations. Generally speaking, the maximum horizontal fragmentation distance is to be used for all unexploded ordnance (UXO) items as the MSD for all non-essential personnel for both intentional and unintentional detonations.

Munitions Constituents (MC). - Any materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and non-explosive materials. MC also includes emission, degradation, or breakdown elements of such ordnance or munitions. (10 U.S.C. §2710(e)(3)) Note: Munitions constituents are MEC when explosive compounds of the munitions, such as TNT, RDX, and HMX, are in sufficient concentration as to pose an explosive hazard. This situation arises when concentration levels are 10 percent or more. Non-explosive munitions constituents and explosive concentrations less than 10 percent are not considered MEC.

Munitions and Explosives of Concern (MEC). - Specific categories of military munitions that may pose unique explosive risks, including:

- unexploded ordnance (UXO), as defined in 10 U.S.C. §101(e)(5);
- discarded military munitions (DMM), as defined in 10 U.S.C. §2710(e)(2); or
- munitions constituents (e.g., TNT, RDX), as defined in 10 U.S.C. §2710(e)(3), present in high enough concentrations to pose an explosive hazard. (See “Munitions constituents”)

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

Unexploded Ordnance (UXO). - Military munitions that:

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

(10 U.S.C. §101(e)(5)(A) through (C)) P.L. 106-65, section 3031 (c)(5)(A), provides a more detailed description.

UXO Operations - UXO operations are defined as MEC identification; access procedures such as excavation, either by hand or using heavy equipment; handling of UXO, explosives or explosive items; or disposal, including movement, transportation, and final disposal of MEC.

QA/QC Blind Seeding

5. Responsibilities

5.1. PROCEDURE RESPONSIBILITY

The MEC Quality Assurance Manager is responsible for maintenance, management, and revision of this procedure. Questions, comments, or suggestions regarding this SOP should be sent to the MEC Operations Manager.

5.2. PROJECT RESPONSIBILITY

ERRG QA Specialists performing this task, or any portion thereof, are responsible for meeting the requirements of this procedure. ERRG employees conducting technical review of task performance are also responsible for following appropriate portions of this SOP.

For those projects where the activities of this SOP are conducted, the UXO QA Specialist is responsible for ensuring that those activities are conducted in accordance with this and other appropriate procedures. Project participants are responsible for documenting information in sufficient detail to provide objective documentation that the requirements of this SOP have been met. Such documentation shall be retained as project records.

6. Procedure

6.1. MEC AVOIDANCE AND SAFETY CONSIDERATIONS DURING QA SEED EMPLACEMENT

MEC Avoidance procedures specified and outlined in the ERRG MEC Avoidance SOP will be utilized during the emplacement of QA/QC seeds to ensure the safety of personnel involved in operations. This is a valid safety precaution as seeding operations are performed on sites with potential. QA/QC seeding operations will be under the supervision of UXO qualified personnel. Non-UXO trained personnel will not be allowed in the exclusion zone (EZ) or work zone unless accompanied by a UXO Technician. During operations, ERRG personnel will strictly adhere to ERRG's Corporate Health and Safety Plan and Site Specific Health and Safety Plan and the following general safety practices:

- Operations will be conducted only during daylight hours;
- Access to operating areas will be limited to only those personnel necessary to accomplish the specific operation;
- UXO will not be handled during avoidance operations, personnel will be directed away/around from the item;
- During UXO operations the minimum separation distance (MSD) between UXO and non-UXO operations is the fragmentation distance of the munition with the greatest fragmentation distance (MGFD), as stated in the Work Plan. Personnel remaining on-site will be limited to those personnel needed to safely and efficiently prepare the item/s for destruction.);
- Non UXO technicians will receive initial ordnance recognition and safety training prior to beginning operations and will be escorted by qualified UXO personnel at all times;

QA/QC Blind Seeding

- All personnel will attend the daily safety briefing (tailgate safety briefing) prior to entering the operating area;
- Anyone can stop operations for an unsafe act or situation;
- Safety violations and/or unsafe acts will be immediately reported to the UXO Safety Officer (UXOSO);
- Failure to comply with safety rules/procedures may result in termination of employment.

6.2. BLIND SEED EMPLACEMENT PROCEDURES

Prior to excavating for the purpose of subsurface seed placement a magnetometer will be utilized to ensure the excavation locations are free of MEC or MPPEH. This will prevent accidental detonation of buried MEC. The immediate area must be clear of metallic anomalies to ensure the intended detection of the blind seed is unimpeded. The procedures used after clearance with a magnetometer to emplace blind seeds are as follows:

- Ensure the seed item is marked with the correct ERRG seed identification number.
- Excavate the intended seed location to the predetermined depth, record depth utilizing the attached QA Seed Report.
- Emplace the blind seed and record burial data on the QA Seed Report as follows:
 - Place and record the blind seed item at depth with center mass of the item at the intended maximum depth.
 - Arrange and record the blind seed in the intended bearing and attitude. A picture of the item will then be taken.
- Once the blind seed has been emplaced and all data recorded, the item's location coordinates will be recorded on the QA Seed Report after being captured utilizing one of the following procedures, procedures are listed in order of preference priority:
 - When available an RTK GPS unit will be utilized to record the coordinates of the item.
 - When an RTK GPS is not available a handheld GPS may be utilized.
 - Measuring tapes used in conjunction with existing grid stakes and/or reacquired anomaly flags.
- The excavation will be backfilled with incremental amounts of soils, between each increment the backfill soils will be tamped to ensure optimum soil density.

6.3. CONFIDENTIALITY PROCEDURES

The confidentiality of the blind seed location coordinates is necessary to maintain the validity and effectiveness of the QA/QC blind seeding program. To maintain confidentiality the coordinate file within the GPS unit utilized in the blind seed emplacements will be erased or cleared after the coordinates have been transferred to the QA Seed Report. If possible a plot map may be generated plotting the blind seed

QA/QC Blind Seeding

locations. The QA Seed Report and plot map, if generated, will be filed and secured by the ERRG QA Manager in such a way as it will not be available to project personnel. Once a blind seed has been discovered during MEC Intrusive operations the QA Manager will compare the coordinates provided by the UXOQC and the coordinated recorded on the QA Seed Report. Once the blind seed has been verified as a blind seed the QA Manager will report the blind seed as discovered.

7. Forms

QA Seed Report.

Appendix D. ERRG QA Seeding Reports

QA Summary Report

IAR MRA Ranges 44 & 47

August 2014



05 June 2011

QA BLIND SEEDING ACTION

Present on action:

Personnel	Title	Employer
Frank Cota (24&26 May)	MEC QA Manager	ERRG
Steve Johnson (24&26 May)	MEC Tech II	ERRG
Luis Fierro (1June, 2011)	MEC QA Specialist	ERRG

Work Accomplished:

- A total of twenty-three (23) specific blind seed items were placed at the former Ft Ord, Seaside MRA, MRS 15 SEA 1, 3 and 4 at predetermined depths, bearing and attitudes as indicated in the QA Seeding Chart. The chart also contains the Easting and Northings of the seeds, which were captured using a Trimble GPS system. The areas in which the seeds were emplaced are annotated in the comment column of the QA Seeding Chart.

The QA Seeding action was performed in a three day period following the brush cutting operations in the Seaside MRA MRS 15 SEA 1, 3, and 4. Seed emplacement was performed immediately after brush cutting operations to ensure the areas would be ready for geophysical mapping as soon as possible and not prior to brush cutting in order to ensure that the blind seed positions in the ground would not be affected by machinery utilized during brush removal. QA Blind Seed emplacement was performed on 24 and 26 May, 2011 in SEA 1, 3, and part of 4 after bush cutting was completed in those areas. The final four (4) QA blind seeds were emplaced on 1 June, 2011 after brush cutting was completed in SEA 4.

ERRG MEC QA Manager



05 June 2011

QA SEEDING CHART

Item Number	Seed ID#	Item Description	Exact Location		Depth	Horizontal	Vertical	45°	Bearing	Comments
			Easting	Northing						
01	ERRG 01	1.5" x 4" Pipe	5733474	2113813	8-inch	X			N	SEA 1
02	ERRG 02	1.5" x 4" Pipe	5733217	2113776	8-inch			X	E	SEA 1
03	ERRG 03	1.5" x 4" Pipe	5733203	2114077	8-inch		X		N	SEA 1
04	ERRG 04	1.5" x 4" Pipe	5733471	2114260	8-inch	X			E	SEA 1
05	ERRG 05	1.5" x 4" Pipe	5733689	2114517	8-inch			X	N	SEA 1
06	ERRG 06	1.5" x 4" Pipe	5733719	2114737	8-inch		X		N/A	SEA 1
07	ERRG 07	1.5" x 4" Pipe	5736598	2120837	8-inch	X			N	SEA 1
08	ERRG 08	1.5" x 4" Pipe	5740452	2122930	8-inch	X			N	SEA 1
09	ERRG 09	1.5" x 4" Pipe	5740340	2122920	8-inch		X		N/A	SEA 3
10	ERRG 10	1.5" x 4" Pipe	5740185	2122855	8-inch	X			E	SEA 4
11	ERRG 11	1.5" x 4" Pipe	5739405	2122520	8-inch		X		N/A	SEA 4
12	ERRG 12	1.5" x 4" Pipe	5739528	2122619	8-inch			X	N	SEA 4
13	ERRG 13	1.5" x 4" Pipe	5739749	2122675	8-inch	X			E	SEA 4
14	ERRG 14	1.5" x 4" Pipe	5732796	2113980	8-inch	X			N	SEA 4
15	ERRG 15	1.5" x 4" Pipe	5736848	2121240	8-inch	X				SEA 3
16	ERRG 16	1.5" x 4" Pipe	5736766	2121353	8-inch		X		N/A	SEA 3
17	ERRG 17	1.5" x 4" Pipe	5736668	2121141	8-inch			X		SEA 3
18	ERRG 18	1.5" x 4" Pipe	5736540	2121221	8-inch	X				SEA 3
19	ERRG 19	1.5" x 4" Pipe	5736476	2121353	8-inch		X		N/A	SEA 3
20	ERRG 01 (Jun 01)	1.5" x 4" Pipe	5743076.50	2121864.77	8-inch	X			N	IAR
21	ERRG 02 (Jun 01)	1.5" x 4" Pipe	5742979.03	2121714.97	8-inch		X		N/A	IAR
22	ERRG 03 (Jun 01)	1.5" x 4" Pipe	5742828.54	2121827.20	8-inch	X			N	IAR
23	ERRG 4 (Jun 01)	1.5" x 4" Pipe	5743326.50	2121449.87	8-inch		X		N/A	IAR

05 June 2011

24 AND 26 MAY, 2011 Pictures



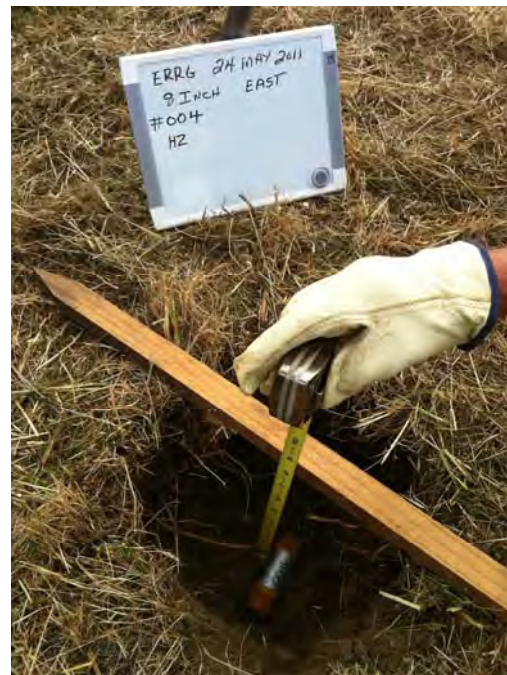
ERRG QA Seed 01



ERRG QA Seed 02



ERRG QA Seed 03



ERRG QA Seed 04

05 June 2011



ERRG QA Seed 05



ERRG QA Seed 06



ERRG QA Seed 07



ERRG QA Seed 08

05 June 2011



ERRG QA Seed 09



ERRG QA Seed 10



ERRG QA Seed 11



ERRG QA Seed 12

05 June 2011



ERRG QA Seed 13



ERRG QA Seed 14



ERRG QA Seed 15



ERRG QA Seed 16

05 June 2011



ERRG QA Seed 17



ERRG QA Seed 18



ERRG QA Seed 19

05 June 2011

01 JUNE, 2011 SEED PICTURES



ERRG QA Seed 01



ERRG QA Seed 02

05 June 2011

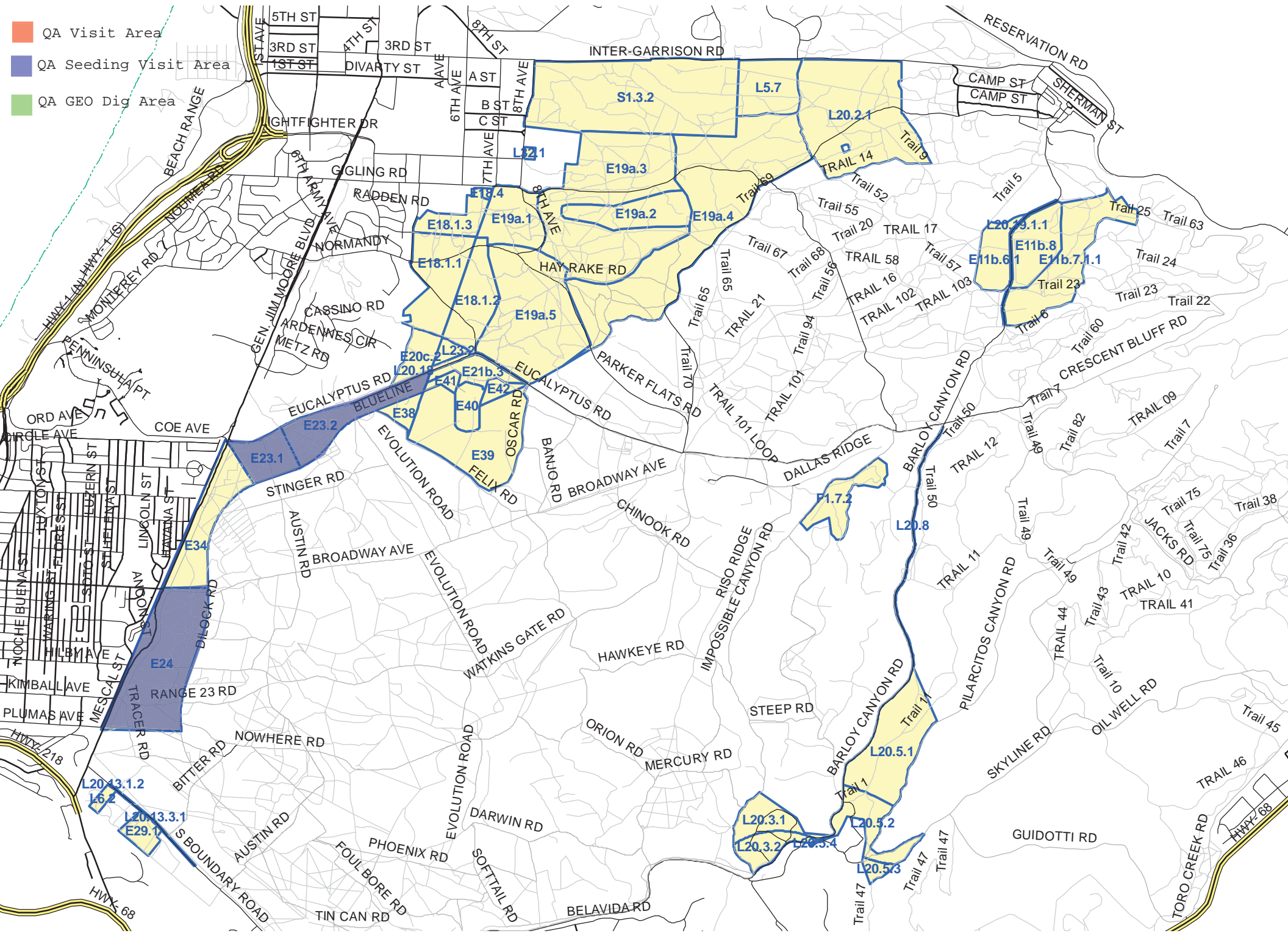


ERRG QA Seed 03



ERRG QA Seed 04

- QA Visit Area
- QA Seeding Visit Area
- QA GEO Dig Area





17 October 2011

QA BLIND SEEDING ACTION

Present on action:

Personnel	Title	Employer
Luis Fierro	UXOQA	ERRG

Work Accomplished:

- A total of two (2) specific blind seed items were placed at the former Ft Ord, in parcel E39, IAR Range 47 at predetermined depths, bearing and attitudes as indicated in the QA Seeding Chart. The chart also contains the Easting and Northings of the seeds, which were captured using a Trimble RTK GPS system. The areas in which the seeds were emplaced are annotated in the comment column of the QA Seeding Chart.

This QA Seeding action was performed on October 17th, 2011 following vegetation removal operations to ensure the areas would be ready for geophysical mapping as soon as possible.



ERRG MEC QA Manager

QA SEEDING CHART

Item Number	Seed ID#	Item Description	Exact Location		Depth	Horizontal	Vertical	45°	Bearing	Comments
			Easting	Northing						
01	ERRG 001	1.5" x 4" Pipe	5741231.929	2121727.756	8-inch	X			0°	Parcel E39
02	ERRG 002	1.5" x 4" Pipe	5741375.296	2122326.368	8-inch		X		0°	Parcel E39

17 October 2011

Pictures



ERRG QA Seed 001



ERRG QA Seed 002



24 October 2011

QA BLIND SEEDING ACTION

Present on action:

Personnel	Title	Employer
Luis Fierro	UXOQA	ERRG

Work Accomplished:

- A total of four (4) specific blind seed items were placed at the former Ft Ord, in parcel E39, IAR R44 at predetermined depths, bearing and attitudes as indicated in the QA Seeding Chart. The chart also contains the Easting and Northings of the seeds, which were captured using a Trimble RTK GPS system. The areas in which the seeds were emplaced are annotated in the comment column of the QA Seeding Chart.

This QA Seeding action was performed on October 24th, 2011 following vegetation removal operations to ensure the areas would be ready for geophysical mapping as soon as possible.



ERRG MEC QA Manager

QA SEEDING CHART

Item Number	Seed ID#	Item Description	Exact Location		Depth	Horizontal	Vertical	45°	Bearing	Comments
			Easting	Northing						
01	ERRG 001	*1.5" x 4" Pipe	5743053.119	2121750.363	11-inch	X			0°	*Parcel E3
02	ERRG 002	*1.5" x 4" Pipe	5742859.054	2121646.459	10-inch	X			0°	*Parcel E3
03	ERRG 003	1.5" x 4" Pipe	5743156.493	2121973.685	10-inch		X		0°	*Parcel E3
04	ERRG 004	1.5" x 4" Pipe	5742898.229	2122188.002	11-inch	X			0°	*Parcel E3

24 October 2011

Pictures



ERRG QA Seed #001



ERRG QA Seed #002

24 October 2011

Pictures Continued



ERRG QA Seed #003



ERRG QA Seed #004



11 January 2012

QA BLIND SEEDING ACTION

Present on action:

Personnel	Title	Employer
Frank Cota	MEC QA Manager	ERRG
Michael Davis	MEC QA Specialist	ERRG

Work Accomplished:

- A total of eight (8) specific blind seed items were placed at the former Ft Ord, Range 47 Interim Action Range (IAR) at predetermined depths, bearing and attitudes as indicated in the QA Seeding Chart. The chart also contains the Easting and Northings of the seeds, which were captured using a Trimble RTK GPS system. The areas in which the seeds were emplaced are annotated in the comment column of the QA Seeding Chart.

This QA Seeding action was performed on January 11th, 2012 following removal of soil in the area for sift operations. QA blind seeds were emplaced after soils were removed as this area will have DGM operations performed in.

ERRG MEC QA Manager

QA SEEDING CHART

Item Number	Seed ID#	Item Description	Exact Location		Depth	Horizontal	Vertical	45°	Bearing	Comments
			Easting	Northing						
01	ERRG 01	1.5" x 4" Pipe	5740904.10841	2122116.46893	8-inch			X	108°E	Range 47 IAR
02	ERRG 02	1.5" x 4" Pipe	5740939.18352	2122302.65044	11-inch	X			74°E	Range 47 IAR
03	ERRG 03	1.5" x 4" Pipe	5741105.21411	2122298.17793	9-inch			X	168°S	Range 47 IAR
04	ERRG 04	1.5" x 4" Pipe	5741063.6941	2122102.35035	10-inch		X		0°	Range 47 IAR
05	ERRG 05	1.5" x 4" Pipe	5741192.16068	2121947.09755	8-inch	X			175° S	Range 47 IAR
06	ERRG 06	1.5" x 4" Pipe	5741527.21764	2122020.74479	8-inch		X		0°	Range 47 IAR
07	ERRG 07	1.5" x 4" Pipe	5741709.45291	2121907.26995	9-inch			X	343°N	Range 47 IAR
08	ERRG 08	1.5" x 4" Pipe	5741678.70675	2121647.75572	9-inch	X			91°E	Range 47 IAR

11 January 2012

Pictures



ERRG QA Seed 01



ERRG QA Seed 02



ERRG QA Seed 03



ERRG QA Seed 04

11 January 2012



ERRG QA Seed 05



ERRG QA Seed 06



ERRG QA Seed 07



ERRG QA Seed 08

Appendix E. Seed Recovery Tables

Project Site Name	Area Of Concern Name	Search Area ID	Northing	Easting	Target Number	Item Count	Dig Date	Item Category	Item Type	Offset	Offset Units	Offset Azimuth	Depth	Depth Units	Comments	Land Use
Interim Action Ranges	E39 - MCP Reserve	B2J6H8	2121729.88	5741231.80	2518	1	3/15/2012 16:10	QA Seed	1" x 4" Pipe	12.00	in	S	8.00	in	qa seed 001	InterimActionRange-R47
Interim Action Ranges	E39 - MCP Reserve	B2J6J7	2121945.50	5741183.25	4075	1	4/9/2012 10:35	QA Seed 05	1" x 4" Pipe	4.00	in	S	9.00	in	QA Seed #5	InterimActionRange-R47
Interim Action Ranges	E39 - MCP Reserve	B2J7G2	2121644.34	5741676.19	2077	1	4/2/2012 14:13	QA Seed 08	1" x 4" Pipe	5.00	in	SE	9.00	in	QA seed 008	InterimActionRange-R47
Interim Action Ranges	E39 - MCP Reserve	B2J7J3	2121899.00	5741710.50	3700	1	4/5/2012 11:38	QA Seed 07	1" x 4" Pipe	6.00	in	S	6.00	in	seed #7	InterimActionRange-R47
Interim Action Ranges	E39 - MCP Reserve	C2A6A4	2122092.50	5740892.00	5648	1	3/20/2012 13:16	QA Seed 01	1" x 4" Pipe	2.00	in	S	12.00	in	qa seed 1	InterimActionRange-R47
Interim Action Ranges	E39 - MCP Reserve	C2A6A6	2122096.50	5741058.25	5721	1	3/22/2012 14:04	QA Seed 04	1" x 4" Pipe	0.00	in		12.00	in	qa seed 4	InterimActionRange-R47
Interim Action Ranges	E39 - MCP Reserve	C2A6C5	2122291.75	5740936.00	6953	1	3/20/2012 10:11	QA Seed 02	1" x 4" Pipe	0.00	in		12.00	in	qa seed 2	InterimActionRange-R47
Interim Action Ranges	E39 - MCP Reserve	C2A6C7	2122287.50	5741108.25	6933	1	4/3/2012 10:35	QA Seed 03	1" x 4" Pipe	8.00	in	N	6.00	in	seed #03	InterimActionRange-R47
Interim Action Ranges	E39 - MCP Reserve	C2A6D9	2122325.75	5741375.75	7149	1	3/23/2012 11:50	QA Seed	1" x 4" Pipe	0.00	in		12.00	in	QA seed 001	InterimActionRange-R47
Interim Action Ranges	E39 - MCP Reserve	C2A7A1	2122013.50	5741534.00	4645	1	4/12/2012 14:02	QA Seed 06	1" x 4" Pipe	6.00	in	SE	6.00	in	QA seed #6	InterimActionRange-R47

Project_Site_Name	Area_Of_Concern_Name	Search_Area_ID	Northing	Easting	Target_Number	Item_Count	Dig_Date	Item_Category	Item_Type	Offset	Offset_Units	Offset_Azimuth	Depth	Depth_Units	Comments	Land_Use
Interim Action Ranges	E39 – MCP Reserve R44 North	B2J8H5	2121714.80	5742977.30	19852	1	7/2/2012 8:27	QA Seed	1" x 4" Pipe	6.00	in	S	8.00	in	QA Seed 002	IAR-R44-DS-EXP-2nd-DGM
Interim Action Ranges	E39 – MCP Reserve R44 North	B2J8H6	2121751.75	5743053.50	13850	1	2/1/2012 13:14	QA Seed	2" x 8" Pipe	0.00	in		12.00	in	errg seed 001	IAR-R44-Subset2
Interim Action Ranges	E39 – MCP Reserve R44 North	B2J8I6	2121865.75	5743075.75	14322	1	1/4/2012 14:56	QA Seed	1" x 4" Pipe	6.00	in	NE	3.00	in	QA seed 001	IAR-R44-Subset2